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Attachment from Infancy to Early Adulthood in a High-Risk Sample: Continuity, Discontinuity, and Their Correlates

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This study explores the stability of attachment security and representations from infancy to early adulthood in a sample chosen originally for poverty and high risk for poor developmental outcomes. Participants for this study were 57 young adults who are part of an ongoing prospective study of development and adaptation in a high-risk sample. Attachment was assessed during infancy by using the Ainsworth Strange Situation (Ainsworth & Wittig) and at age 19 by using the Berkeley Adult Attachment Interview (George, Kaplan, & Main). Possible correlates of continuity and discontinuity in attachment were drawn from assessments of the participants and their mothers over the course of the study. Results provided no evidence for significant continuity between infant and adult attachment in this sample, with many participants transitioning to insecurity. The evidence, however, indicated that there might be lawful discontinuity. Analyses of correlates of continuity and discontinuity in attachment classification from infancy to adulthood indicated that the continuous and discontinuous groups were differentiated on the basis of child maltreatment, maternal depression, and family functioning in early adolescence. These results provide evidence that although attachment has been found to be stable over time in other samples, attachment representations are vulnerable to difficult and chaotic life experiences.

INTRODUCTION

Bowlby (1969/1982, 1980) wrote that internal working models should become more resistant to change over time given a stable, reinforcing environment, but he did not go so far as to indicate that change is impossible over the course of development. Bowlby adopted and extended a concept from Waddington (1957) that development can be conceived of as a branching set of pathways, like a tree lying on its side. If security and insecurity were described as two diverging pathways early in development, the further the branches one took moved away from the other major pathway, the more difficult converging with that pathway would become. Thus, if a person with an insecure organization experiences more rejection and implements stronger defenses with time, transitioning to security will become less likely for that person. These branching pathways, however, also leave open the possibility of changes between security and insecurity. For example, if an individual with a secure organization had many negative relationship experiences, he or she could eventually transition to an insecure organization.

This study examines continuity and discontinuity in attachment from infancy to age 19 longitudinally in a sample at high risk for poor developmental adaptation and also examines some possible correlates of such continuity and discontinuity. Like the other studies described here, this study examines the relation between infant attachment and adult attachment. It does differ from the other studies, however, in some important ways. This sample is a low-income sample, selected for high risk for poor developmental outcomes. There is likely to be less stability in the environments and interpersonal relationships of these participants than in other samples, and likewise there may be less stability in their attachment classifications.

Correlates of continuity and discontinuity are examined somewhat differently in this study than in the other studies presented here. The reason for this departure is the high occurrence of negative life events in this sample. Considering negative life events to consist of being born to a single mother, parental divorce, life-threatening illness of parent or child, serious parental drug or alcohol problem, child experiencing physical or sexual abuse, or a parent or other custodial attachment figure dying, 91.2% of the participants in this sample experienced at least one negative life event. This high rate of negative life events makes it statistically inadvisable to conduct analyses comparing those participants who experienced negative life events with those who did not. Consequently, correlates of continuity and discontinuity are examined by

This is one of three long-term longitudinal studies assessing infant attachment. See Waters, Hamilton, & Weinfield, "The Stability of Attachment Security from Infancy to Adolescence and Early Adulthood: General Introduction," for an overall view of study design, measures, and supporting references.

conducting analyses comparing particular experiences of stable versus nonstable attachment groups. These experience variables were chosen because of their theoretical and empirical relevance to attachment relationships. The correlates explored here are maternal life stress, maternal depression, child experience of maltreatment, and family functioning in early adolescence.

All four of these variables have empirical or theoretical importance for the study of attachment. Maternal life stress has been shown to predict changes in attachment security during infancy (Egeland & Farber, 1984; Vaughn, Egeland, Sroufe, & Waters, 1979). Maternal depression has been shown to have wide-ranging negative effects on children (see Downey & Coyne, 1990, for a review), including a tendency toward insecure attachment relationships (DeMulder & Radke-Yarrow, 1991; Egeland & Farber, 1984; Gaensbauer, Harmon, Cytryn, & McKnew, 1984; Radke-Yarrow, Cummings, Kuczynski, & Chapman, 1985). Infants who have been maltreated within their families are more likely than nonmaltreated infants to show a change in their attachment relationships away from security (Egeland & Sroufe, 1981; Schneider-Rosen, Braunwald, Carlson, & Cicchetti, 1985). Finally, if the quality of attachment representations are responsive to changes in attachment relationships, quality of family functioning should be related to stability and change in attachment classification.

METHOD

Participants

Participants were 59 young adults, ages 18–19, a subset of the participants from the Minnesota Mother–Child Project, which is an ongoing prospective longitudinal study of development and adaptation in children at risk for poor developmental outcomes. The original full sample consisted of 267 primiparous mothers and their infants. Mothers were recruited from public health clinics during the third trimester of pregnancy. Mothers were young ($M = 20$, *range* = 12–34), mostly single (62%), and many (40%) had not completed high school. The majority of the pregnancies were unplanned (82%), and most families were earning incomes at or below the poverty level. Overall, the lives of the sample members were characterized by high levels of stress and instability and low levels of social support (Egeland & Brunnquell, 1979). Eighty percent of the women were European American, 13% were African-American, and 7% were Hispanic or Native American.

The current study focuses on development in a subgroup of the children from the original sample. The subgroup examined in this study consisted of participants from two groups (not mutually exclusive). One group consisted of participants who had participated in a nursery school through the Mother–Child Project and attended a summer camp together through the Project at age 10. This group was originally chosen for more intensive study, in part because of stable infant attachment classifications from the 12- and 18-month assessments. The second group consisted of those participants who had become parents by the age of 19. The stable infant attachment group was chosen to increase confidence in the accuracy of the infant attachment classifications. The group that had become parents was added because the Adult Attachment Interview had been used previously with teen mothers. Base rates of infant attachment security were similar in both subgroups; security was slightly more strongly represented in the teen parent group. One participant was excluded from analyses because low IQ and medication brought the validity of her Adult Attachment Interview into question, and another participant was excluded because infant attachment information was not available; therefore, the participant total was 57 (25 males and 32 females). Racial distribution of this subgroup was as follows: 61% European American, 16% African American, and 23% mixed racial background. This subgroup did not differ significantly from the original sample of 267 on base rates of infant attachment security, maternal education, maternal age, family socioeconomic status (SES), proportion of single mothers, or mother's racial or ethnic group membership. Sample size may differ slightly across analyses because of missing data for some participants at some time points.

Procedures and Measures

General Procedures

Data for the larger longitudinal study have been collected at regular intervals, beginning during the mothers' third trimester of pregnancy and extending through their children's 19th birthdays. Information used in this study has been collected through interviews with the mothers or their children and videotaped observations of the mothers and children together.

Attachment Measures

The Strange Situation. Infant attachment was assessed in the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978; Ainsworth & Wittig, 1969) when the children were 12 months old and again when they

were 18 months old. Each Strange Situation was coded by two coders. Twelve- and 18-month Strange Situations were coded by separate coders, and 18-month coders were blind to 12-month attachment classification. Interrater agreement for the 12-month classifications was 89%; agreement for the 18-month classifications was 93%. Disagreements at both times were resolved through discussion. Participants were classified as insecure-avoidant, secure, or insecure-resistant. The disorganized-disoriented classification (Main & Solomon, 1990) was not considered in these analyses.

For the purposes of analyses in this study, only one designation of infant attachment classification is used for each participant. The single infant attachment classification was determined by using all available infant attachment data to further increase confidence in the accuracy of the infant attachment classifications. For the portion of this subsample that was chosen specifically for stable attachment classification from 12 to 18 months, the classification that was made at both 12 and 18 months is used to represent infant attachment status ($n = 36$). For participants for whom only one Strange Situation assessment is available, that single classification is used to represent infant attachment status ($n = 6$). For participants whose infant attachment classification differed at 12 and 18 months, a single classification was determined through interrater conferencing, considering the 12- and 18-month classifications as well as an evaluation at 24 months ($n = 9$). If no 24-month evaluation is available and the 12- and 18-month classifications differ, the 12-month classification is used to represent infant attachment classification because the Strange Situation procedure was originally designed for use at that age ($n = 6$).

The Berkeley Adult Attachment Interview. The Berkeley Adult Attachment Interview (George, Kaplan, & Main, 1985) was administered as a part of a battery of measures during an interview that took place around the participants' 19th birthdays.

During the transcription process, interviews were blinded for all identifying information, including original participant number and names of people and places so that coders familiar with some participants would be blind to the identities of participants while coding. All interviews were coded by the first author, with the exception of five interviews where the identity of the participant could not be sufficiently blinded for that coder. All coders were trained in coding by Mary Main and Erik Hesse and have established reliability with them. Two particularly challenging interviews were sent out for expert coding by Mary Main and Erik Hesse. Interrater reliability was established through double coding of a randomly selected set of cases from this sample. Percent agreement between coders was 82% across the three major classifications ($\kappa = .67$, $p < .001$). Participants were classified as insecure-dismissing, secure-autonomous, or insecure-preoccupied. Although unresolved status was assessed in this sample, it will not be considered in these analyses because no participants in this subsample were classified as unresolved but autonomous.

Measures of Correlates of Continuity and Discontinuity of Attachment

Maternal life stress. Maternal life stress was assessed at 11 time periods between child age 18 months and 19 years by using the Life Events Scale (Egeland & Deinard, 1975), adapted from Cochrane and Robertson's (1973) Life Events Inventory for use with a low SES sample. The Life Events Scale consists of a 40-item interview that inquires about a variety of stressful life experiences that may have occurred in the period of time since the last interview, including such topics as family conflict, difficulties with neighbors, instability of living situation, work-related problems, health problems, and trouble with the law. Events were rated for both for occurrence and severity. The Life Events Scale has been shown to predict both concurrent and subsequent child functioning (Herzog, 1984; Pianta, 1985), thus demonstrating that self-reported maternal life stress does relate to child outcomes. Scores from these measures were averaged to obtain one score for each participant that represented average total maternal life stress over the period between the Strange Situation assessment and the Adult Attachment Interview. Reliability was evaluated through interrater agreement on the total life stress scores. Reliability was assessed with Pearson r correlations and ranged from $r = .86$ to $r = .96$ for individual time points.

Maltreatment. The Mother–Child Project began as a prospective study of child maltreatment. As such, the staff of the Mother–Child Project has assessed regularly whether there is any evidence of maltreatment of the children in this study by their caregivers (see Egeland & Sroufe, 1981). Using information from mother interviews and home observations, groups of participants were identified as having been physically abused, verbally abused, neglected, or subject to maternal psychological unavailability during childhood. Maltreatment is collapsed across category of abuse for analyses. Maltreatment scores are coded 0 (not identified as maltreated) or 1 (identified as maltreated).

Maternal depression. Maternal depression was as-

sessed with two widely used self-report inventories of depressive symptomatology. The Center for Epidemiological Studies Depression Scale, or CES-D (Radloff, 1977), was administered at 48 months, 16 years, and 17.5 years. The Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was administered at the second-grade and third-grade interviews.

For the purposes of analyses, and to maintain the integrity of the individual measures, depression was evaluated in terms of the number of times a mother scored either (1) at high risk for depression on the CES-D or (2) above borderline risk for depression on the BDI. To allow for missing data, scores were then transformed to indicate the proportion of assessments during which a mother met the criteria for depression (taking into account the number of assessments that were available for each case). Consequently, the maternal depression score ranges from 0 to 1.

Family functioning. Qualities of parent–child interaction were assessed during an observational assessment of family functioning during interaction tasks at age 13. One group of scales, the "balance" scales, is used in these analyses (for the full scales, see Fleeson, 1988). The three balance scales were developed by using concepts drawn from family systems theory and are so called because they assess how well the dyad balances the multiple functions of their relationship roles during the session. The scales assess how secure the family members are in their roles and whether they seem to feel free to act naturally and spontaneously within those roles; whether the relationship supports the development and needs of the individuals; whether the individuals take pride in and enjoy the relationship; and whether the relationship allows a commitment to goal-oriented teamwork to meet the requirements of the tasks. The balance scales have been shown to relate to the child's ego-resiliency (Sroufe, 1991), as well as to subsequent adolescent reports of family functioning (Ogawa & Weinfield, 1997). Interrater reliability on the three balance scales had an average intraclass correlation of $\rho_I = .61$.

For the purposes of these analyses the balance scales are composited by summing across the three scale scores. The reason for this compositing is to provide a broader index of the quality of relationship functioning at age 13. The family balance composite has a possible range from 3 to 21.

Relations between these four potential correlates of continuity and discontinuity of attachment are presented in Table 1. Correlations range in magnitude from .17 to .38.

Table 1 Intercorrelations between Attachment-Related Life Events

Variable	1	2	3	4
1. Maternal life stress				
2. Child maltreatment	.35**			
3. Maternal depression	.38**	.17		
4. Family balance	−.35**	−.34*	−.26	

*$p < .05$; **$p < .01$.

RESULTS

Three-Level Contingency Analysis

A χ^2 analysis was conducted to assess continuity in three-category attachment classification (avoidant/secure/resistant to dismissing/secure/preoccupied) from infancy to adulthood (see Table 2). The rate of continuity was 38.6%. The nonsignificant χ^2, $\chi^2(4, N = 57) = 1.19$, *ns*, indicates that there was no significant continuity between infant and adult attachment. For infant attachment, a secure classification was the predominant classification (59.6%). In contrast, for adult attachment, an insecure-dismissing classification was the predominant classification (59.6%).

Two-Level Contingency Analyses

Another χ^2 analysis was conducted to assess continuity in two-category attachment classification from infancy to adulthood, collapsing across the two insecure classifications at each time point to obtain a secure/insecure differentiation. The rate of continuity was 50.9%. The nonsignificant χ^2, $\chi^2(1, N = 57) = .54$, *ns*, indicates there was no significant continuity between infant and adult attachment.

To clarify this finding and explore whether certain characteristics of the data or the sample can account for it, the two-level contingency analysis was recalculated by using several different criteria: (1) female par-

Table 2 Stability of Attachment Classifications from Infancy to Adulthood

Adult Attachment Classification (Adult Attachment Interview)	Infant Attachment Classification (Strange Situation)			
	Avoidant (A)	Secure (B)	Resistant (C)	Total
Dismissing (Ds)	9	20	5	34
Secure (F)	4	12	2	18
Preoccupied (E)	2	2	1	5
Total	15	34	8	57

ticipants only, (2) male participants only, (3) participants with stable infant attachment classifications across 12 and 18 months only, (4) using 12-month infant attachment classifications only, (5) using 18-month infant attachment classifications only, and (6) teen parents only. Continuity was not strikingly different, and certainly not significantly different, for any of the variants.

The categorical nature of attachment classifications could also possibly mask continuity that would be revealed if continuous measures were used. To test this hypothesis, continuous measures were derived for infant and adult attachment. For infant attachment, the number of times (across the 12- and 18-month assessments) that a participant was classified as secure was used as a continuous measure of attachment, resulting in a score ranging from 0–2. For adult attachment the Coherence of Transcript rating scale was used. This scale is strongly related to classification: high coherence is a quality of secure transcripts, and low coherence is a quality of insecure transcripts. The correlation between these two continuous measures of attachment was $r(51) = .14$, *ns*, and covarying out attachment-related negative life events did not bring the correlation to significance. It seems, then, that this finding of a lack of significant continuity between infant and adult attachment is a consistent finding within this sample.

Analyses of Correlates of Continuity and Discontinuity

Despite the lack of significant continuity between infant and adult attachment classifications, an a priori examination of correlates of stability and change was carried out. The rationale for doing so was that continuity has already been established between infant and adult attachment classifications in other samples (Hamilton, 2000; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000), thus the two classification variables can be assumed to be related, and an exploration of correlates is justified.

For the purpose of these analyses, participants were divided into four groups representing the possibilities of continuity and discontinuity: (1) infant insecure-adult insecure ($n = 17$), (2) infant secure-adult secure ($n = 12$), (3) infant insecure-adult secure ($n = 6$), and (4) infant secure-adult insecure ($n = 22$). For each potential correlate, planned contrasts were conducted comparing the groups that have the same infant classification but differing adult classification (e.g., infant secure-adult secure with infant secure-adult insecure). Planned contrasts were chosen over ANOVA with regular post hoc tests to take a theoretically driven approach, thereby eliminating analyses that were not of direct interest (e.g., stable secure versus stable insecure groups, although likely differing on correlates, are not directly relevant to the stability versus change question). Planned contrasts protect against Type II error by reducing the likelihood that a true effect will be obscured by variation that is not of theoretical interest. Planned contrasts do not require the precondition of a significant omnibus test; thus no omnibus tests are reported (for a full discussion of planned contrasts, see Hays, 1988). Means and standard deviations on the correlates for the four groups appear in Table 3. Although child maltreatment is a categorical variable, it is statistically permissible to use the variable as continuous given that the magnitude of the dimension in question (maltreatment) differs across values of the variable (Cohen & Cohen, 1975). Because child maltreatment is a dichotomous variable, however, standard deviations for the variable are not reported.

Stressful life events. Although the secure-secure group did have a lower level of average total maternal life stress than the secure-insecure group, this finding was nonsignificant, $t(53) = -1.24$, *ns*. The means for

Table 3 Means and Standard Deviations on Correlates of Continuity and Discontinuity in Attachment

	Adult Attachment Classification	
Correlate Infant Attachment	Secure *M* (*SD*)	Insecure *M* (*SD*)
Average maternal life stress sample range = 3.6–17.7, $N = 57$		
Secure	8.3 (3.6)	10.0 (3.9)
Insecure	11.2 (3.5)	11.4 (4.1)
Child maltreatment[a] sample range = 0–1, $N = 57$		
Secure	.25	.14
Insecure	.00	.41
Maternal depression sample range = .0–.6, $N = 57$		
Secure	.05 (.09)	.15 (.19)
Insecure	.23 (.15)	.13 (.22)
Family balance scores sample range = 8.0–19.5, $N = 54$		
Secure	15.0 (1.8)	14.1 (2.7)
Insecure	14.5 (2.1)	12.0 (2.3)

[a] No standard deviations are indicated for the child maltreatment variable because the variable is dichotomous. The mean indicates the proportion of participants in the group who were maltreated.

the insecure infant groups were very similar, and again the difference was nonsignificant, $t(53) = .09$, *ns*. Overall, maternal stressful life events were not found to be a correlate of stability and change in attachment classification within this sample.

Maltreatment. Child maltreatment did not differentiate the secure-secure group from the secure-insecure group, $t(18.4) = .76$, *ns*. It did, however, differentiate the insecure-insecure group from the insecure-secure group, $t(16) = 3.35$, $p = .004$. The descriptive data reveal that whereas the mean for the insecure-insecure group was .41 (41% of this group had been identified as maltreated), the mean for the insecure-secure group was actually .00 (no participants in this group had been identified as maltreated). Thus it appears that those participants who had an insecure infant attachment relationship and an insecure adult attachment classification were significantly more likely to have experienced maltreatment than those participants with insecure infant attachment who transitioned to adult security.

To explore whether this finding could be attributed to a general difference between secure and insecure adult attachment classification rather than a difference specific to the infant insecure group, a *t*-test was conducted to determine whether the mean for maltreatment differed across adult attachment classification (secure versus insecure adult groups). The difference between the mean for the adult secure group (.17) and the mean for the adult insecure group (.28) was nonsignificant, $t(55) = .74$, *ns*. Consequently, the finding may be interpreted to be specific to the infant insecure group (see Table 3).

Maternal depression. Maternal depression did not differentiate the insecure-insecure group from the insecure-secure group, $t(13.3) = -1.27$, *ns*. Maternal depression did differentiate the secure-secure group from the secure-insecure group, $t(31.5) = -2.13$, $p = .04$. The secure-insecure group had mothers who were significantly more often depressed than the mothers of the secure-secure group.

To examine the possibility that this finding could be attributed to adult attachment outcomes rather than change groups specifically, a *t*-test was conducted to examine differences in maternal depression across adult attachment classification (secure versus insecure adult groups). Results indicated that mean maternal depression did not differ specifically by adult attachment classification, $t(55) = .61$, *ns*. The finding, then, may be attributed specifically to the infant secure stability and change groups.

Family functioning. Although the secure-secure group had a higher mean family balance composite score than the secure-insecure group, this finding was nonsignificant, $t(50) = 1.00$, *ns*. The insecure-secure group had a higher mean family balance composite score than the insecure-insecure group, and this difference was significant, $t(50) = -2.24$, $p = .03$. The insecure-secure group seems to have had better family functioning at age 13 than the stable insecure group.

To examine the possibility that this finding could be attributed to adult attachment outcomes rather than change groups specifically, a *t*-test was conducted to examine differences in family balance composite scores across adult attachment classification (secure versus insecure adult groups). Results indicated that the mean family balance composite score was higher for the adult secure group than for the adult insecure group $t(52) = -2.32$, $p = .03$. Although this does not indicate that the within infant insecure group finding is spurious, it indicates that caution is warranted in interpreting this finding because it may be associated with outcome rather than change specifically.

DISCUSSION

In looking at the distribution of adult attachment classifications, one aspect of this sample is particularly striking: the predominance of insecure classifications, specifically insecure-dismissing classifications. This is unusual because in most middle-class samples the secure-autonomous classification is the predominant classification (e.g., Benoit & Parker, 1994; Das Eiden, Teti, & Corns, 1995; Fonagy, Steele, & Steele, 1991). In a study looking at attachment in high-risk adolescent mothers and their infants, however, the adult attachment classification distribution also showed a preponderance of insecure dismissing classifications (Ward & Carlson, 1995). Possibly there is something about the combination of high rates of attachment-related negative life events and the period of late adolescence that makes a dismissing state of mind with respect to attachment more likely at this point of development. Waters, Weinfield, and Hamilton (2000) address this issue further in the General Discussion for this set of papers.

There was no significant continuity in attachment classification from the Strange Situation to the Adult Attachment Interview. One possible explanation is that within a high-risk sample that has a less stable environment and less stable relationships than a middle-class sample, there would be less continuity. This has been suggested theoretically by Bowlby (1980) and borne out in studies of continuity of infant attachment classifications in high-risk samples from 12 to 18 months (Schneider-Rosen et al., 1985; Vaughn et al., 1979). Waters et al. (2000) and Hamilton (2000) found that change was more likely in participants who had experienced negative life events. Within this sample, negative life

events were all too common. Therefore, the low stability rate could likely be accounted for by the chaotic lives and negative experiences within this sample.

Another possible source of discontinuity is measurement error. The concern over the role of measurement error is minimized, however, by the fact that all AAI coders had established reliability with Mary Main, and interrater reliability, although not high, was well within acceptable ranges. The finding that family functioning in adolescence differentiates participants who will later be classified as secure or insecure on the Adult Attachment Interview also reinforces the validity of the classifications at age 19.

Several variables representing life circumstances were found to relate to continuity and change in attachment classification from infancy to adulthood. One variable that did not relate to continuity or discontinuity was maternal life stress. One possibility is that low power and large standard deviations were responsible for the nonsignificant finding. Another possibility is that as these children grew into adolescence and early adulthood the influence of their mothers' life stress diminished and their own, perhaps different, life stress became more crucial.

Stable insecure participants were significantly more likely to have been maltreated during childhood than infant insecure participants who transitioned to security. Interestingly, rather than being instrumental in a change from security to insecurity as Schneider-Rosen and her colleagues (1985) found in infancy, maltreatment seems to be relevant to the maintenance of insecurity from infancy to adulthood within this high-risk sample. It may be that within this sample maltreatment was what Bowlby (1980) described as a reinforcing experience for the insecure pathway.

The measure of family functioning must be interpreted with some caution because it also differentiates secure and insecure participants in general on the Adult Attachment Interview. Insecure participants who transitioned to security had better family functioning at age 13 than the insecure participants who remained insecure. This can best be interpreted as a marker of positive change within the family. The families of the insecure participants who changed to security seemed to balance the needs of the family, the individuals, and the task better; they allowed for comfortable expressions of opinions and unfettered cooperation toward task goals.

Mothers of individuals who transitioned from security to insecurity were more likely to report clinically significant depressive symptoms than mothers of stable secure individuals. One possibility is that the mother's depression itself is affecting her parenting and consequently the relationship and promoting a change to insecurity. Another equally plausible possibility is that a third as yet unspecified variable is influencing both the maternal depression and the child's shift to insecurity.

Overall, this study emphasizes the nature of risk in the lives of children who grow up in poverty and chaotic environments. Although research has demonstrated that infant security might provide a buffer that allows for continued competence in the face of adversity, it does not seem to make certain continued security. Difficult life experiences take their toll on children despite possible avenues of resilience. Research has, however, indicated that individuals with secure early histories may show a rebound to better functioning after setbacks (Sroufe, Egeland, & Kreutzer, 1990), and possibly this will be true in this sample. Some of the dismissing participants (particularly those who were secure in infancy) might transition to "earned" security later if, as they mature, they are able to explore the meaning of their negative experiences.

Two particularly important directions for future research are suggested by this study. One important step would be to replicate these results in another high-risk poverty sample. This type of research is difficult to do, however, because it requires extensive longitudinal work extending from infancy to adulthood. Such work with high-risk samples is unusual. The next step that is possible to do is confirming these findings with the full Mother–Child project sample. The issue that would be addressed by doing a full sample analysis would be similar to that addressed in replication: ensuring that characteristics particular to this subsample are not driving results that would not hold true in a different sample. It would also be informative to reinterview a selected group of these participants at a later age. Of specific interest would be looking at those participants who were secure in infancy but insecure as adults to see if time, maturity, and autonomy from their families of origin allow them to work through their difficult pasts and reclaim their security.

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