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Independent influences upon mother–toddler role reversal: infant–mother attachment disorganization and role reversal in mother’s childhood

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In role reversal a child takes an inappropriate parental, spousal, or peer role with the caregiver. The study assessed attachment disorganization with mother in infancy in the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978) and role reversal at 2 years old in videotaped mother–child interactions. By closely observing role reversal at this early age, results fill in the picture concerning the link between disorganized infant–mother attachment and controlling role reversal at 6 years old (Main & Cassidy, 1988; Main, Kaplan, & Cassidy, 1985). As hypothesized, infant–mother disorganization significantly predicted mother–toddler role reversal. The study also deepened research that predicted role reversal from parent Adult Attachment Interview (AAI) role reversal assessed before the child was born (Macfie, McElwain, Houts, & Cox, 2005). As hypothesized, mother AAI role reversal with her mother in childhood significantly predicted mother–toddler role reversal over and above infant–mother disorganization. Results are discussed within a developmental psychopathology framework including opportunities for developmentally sensitive interventions.

Keywords: attachment; disorganization; role reversal; toddler–mother relationships; Adult Attachment Interview

Introduction

An infant in the Strange Situation (Ainsworth et al., 1978) who is classified as disorganized is unable to find a strategy with which to cope with activation of the attachment system. After being left alone for up to 3 minutes in an unfamiliar room, the caregiver returns and the infant seems caught between approach and avoidance: in need of comfort but afraid of the caregiver. This results in bizarre behavior such as approaching the caregiver but with back towards him or her, trance-like frozen states, and stereotypies (Main & Solomon, 1990).

Not surprisingly, most maltreated children are classified as disorganized (Carlson, Cicchetti, Barnett, & Braunwald, 1989; George & Main, 1979; Lyons-Ruth, Connell, Zoll, & Stahl, 1987). However, disorganized attachment is also observed in 15–30% of infants in normative samples (van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999). This may be due to the caregiver’s more subtle frightening/frightened behavior stemming from unresolved loss or trauma (Hesse & Main, 2006; Jacobvitz, Leon, & Hazen, 2006; Main & Hesse, 1990), chronic failure to terminate activation of the attachment system with

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reassurance (Solomon & George, 1999), or alternating hostile-helpless states of mind leading to inability to provide comfort to a distressed infant (Lyons-Ruth, Bronfman, & Atwood, 1999).

If the goal of the infant–caregiver attachment relationship is to provide a secure base from which the growing child can move outwards to explore (Bowlby, 1969/1982), how does the disorganized infant adapt after infancy? In the first empirical study to assess the relationship between infant disorganization and child–caregiver interactions at 6 years old, Mary Main and her colleagues found, in a normative sample, that infants who were disorganized became controlling of the caregiver at 6 years old in either a punitive or caregiving manner. Indeed, 75% of disorganized infants were classified as controlling at 6 years old (Main & Cassidy, 1988; Main et al., 1985). This finding has been replicated (Jacobsen & Hofmann, 1997; Steele, Steele, & Fonagy, 1996; Wartner, Grossman, Fremmer-Bombik, & Suess, 1994) and, in a meta analysis, the stability from infant disorganization to controlling behavior at 6 years old was strong, with an effect size of $r = .40$ (van IJzendoorn et al., 1999).

Role reversal

Controlling behavior in 6-year-olds consists of either *punitive* behavior (e.g., the child bosses the caregiver around, rejects or humiliates him or her) or *caregiving* behavior (e.g., the child assists, guides, encourages, or is overly cheerful or solicitous). These controlling behaviors were also termed by Mary Main, by others, and by Bowlby as “role reversal” because the child behaved like a parent towards the caregiver (Bowlby, 1988; Main et al., 1985; Solomon, George, & DeJong, 1995; Wartner et al., 1994). In addition, in two of the studies that found a relationship between disorganized attachment and controlling behavior, the controlling group was combined with the unclassified group, the latter including the child’s behaving more like a spouse or romantic partner than a parent (Main & Cassidy, 1988; Wartner et al., 1994). Moreover, mothers of controlling 6-year-olds may treat the child as a playmate or companion (Solomon, George, & Ivins, 1987). Thus, children who were classified as disorganized in infancy may behave like parents, spouses, or playmates in role reversal with their caregivers at 6 years old. However, in studies reviewed thus far, only *child* behavior was assessed, rather than both *child* and *caregiver* behavior. Because role reversal is a dyadic construct, ideally both should be taken into consideration. Moreover, only role reversal at 6 years old was studied; it would be important to discover if it begins earlier than this.

The construct of role reversal has a long history in both the clinical and developmental literatures. In a role appropriate child–caregiver relationship, it is always clear who is the parent and who is the child: the parent has more power, sets limits, and focuses on meeting the child’s needs (Howes & Cicchetti, 1993). However, in role reversal the parent relinquishes power, the child takes in part the role of parent, spouse, or peer (Kerig, 2003), and the focus is on the parent’s needs. These needs include unmet childhood or adult needs for parenting, intimacy, or play (Boszormenyi-Nagy & Spark, 1973; Flanzraich & Dunsavage, 1977; Jurkovic, 1998; Morris & Gould, 1963; Sroufe, Jacobvitz, Mangelsdorf, DeAngelo, & Ward, 1985; Zeanah & Klitzke, 1991). Although it is appropriate for an older child, for example, to take care of a parent who is sick or to help take care of younger siblings, role reversal comprises developmentally inappropriate expectations. Role reversal is a subtype of boundary dissolution, which also includes dimensions not assessed in the current study:

intrusiveness, over-protectiveness, and enmeshment (Jacobvitz, Morgan, Kretchmar, & Morgan, 1991; Kerig, 2003).

Main and Cassidy (1988) theorized that, as they mature, children who were disorganized in infancy may try to organize the caregiver's behavior to make it more predictable by seeking to control the caregiver. However, Main and Cassidy also suggested that the child may be responding to implicit caregiver requests to serve as a parental or spousal figure. The child may *choose* to meet a caregiver's needs in order to increase felt emotional security (Cummings & Davies, 1994) and/or role reversal may develop from the *caregiver's* initiation. The child maintains proximity to the caregiver, but on the caregiver's terms and at the expense of the child's needs for comfort and protection (Lyons-Ruth et al., 1999). Role reversal thus represents a significant distortion in the child-caregiver relationship.

The current study

The current study was designed to extend the research on the connection between attachment disorganization in infancy to role reversal at 6 years old in four ways. First, we assessed both child and caregiver behavior in role reversal rather than child behavior alone. Second, we assessed all dimensions of role reversal: child as parent, child as spouse, parent as child. Each dimension was assessed individually in separate studies in the research reviewed above by Mary Main and colleagues, the term role reversal was used, but the dimensions were not combined as a single construct. Combining them has the benefit of bringing together behaviors that fall naturally under one construct and is also consistent with previous literatures on role reversal. Third, we assessed role reversal at age 2. Although infant disorganized attachment has been shown to predict role reversal at 6 years old, there had been no research on predicting role reversal from attachment disorganization as early as 2 years old. The stage-salient task of toddlers is the beginning of autonomy and self development (Sroufe & Rutter, 1984). Role reversal, focusing as it does on the needs of the caregiver at the expense of the child's needs, may seriously interrupt this development.

Fourth, we examined the contribution of AAI mother role reversal. In a previous study utilizing the current sample, the intergenerational transmission of role reversal by means of dyadic and family systems internal working models was assessed (Macfie, McElwain et al., 2005). Mother and father role reversal with their own mothers was assessed with the AAI before their child was born (George, Kaplan, & Main, 1984; Main & Goldwyn, 1990). Mother-toddler role reversal was assessed in the same observational paradigm as in the current study. Mother AAI role reversal with her mother predicted mother-toddler role reversal with her daughter, in transmission of dyadic mother-daughter internal working models. Father role reversal with his mother predicted his wife's role reversal with their son, in transmission of family systems internal working models: the father married a woman who, like his mother, reversed roles with her son. In the current study, we wanted to see if mother AAI role reversal would predict additional variance in mother-toddler role reversal over and above infant-mother attachment disorganization. Attachment disorganization may represent a lack of resilience in the mother following a difficult childhood, which then spills over into her relationship with her child in infancy and at 2 years old.

We hypothesized that: (1) infant-mother attachment disorganization would predict mother-toddler role reversal; and (2) AAI mother role reversal with their mothers before their child's birth would predict mother-toddler role reversal over and above infant-mother attachment disorganization.

Method

Participants

Families were recruited from prenatal classes in a four-county rural mountainous area of the southeastern USA. An attempt was made to sample all prenatal classes where couples were about to become first-time parents and who had not had children in a prior relationship. Data were collected on families prenatally, at 3 months, 12 months, 24 months, 60 months, and 70 months. Out of 140 families recruited, 138 families provided data for the current study: 75 girls and 63 boys. Due to missing data, sample sizes vary slightly across variables. See Table 1 for sample sizes.

Mothers' average age was 27 years 2 months (range 18–35 years). The sample spanned a wide range of SES, and mothers had an average of 13 years 10 months of education (range 8–18 years). Average family income was US\$2450 per month (range US\$652–US\$5002 per month). Couples had been married at the prenatal visit an average of 3 years 5 months (range 3 months to 17 years), and this marriage was a first marriage for 85% of the women. The sample, representative of this area, comprised 97% European American and 3% African American families.

Procedures and measures

Coding of attachment disorganization, mother–toddler role reversal, and AAI role reversal was completed with coders having information solely about the single measure they were coding.

Attachment disorganization

Infants were observed in the Strange Situation at 12 months with their mothers. Following the procedures outlined by Ainsworth and colleagues (Ainsworth et al., 1978), infants were classified as insecure-avoidant (A), secure (B), or insecure-resistant (C). In addition, infants were assessed on a 9-point scale on level of disorganization (Main & Solomon, 1990). Disorganized behaviors are thought to be indicative of fear, confusion, and conflict with the mother and include freezing, stilling, slowed movements, simultaneous displays of contradictory patterns such as approach and avoidance, direct indices of fear of the mother, and stereotypies such as extended rocking, hair twisting, or any other repeated

Table 1. Descriptive statistics for the whole sample and by child gender with a *t*-test of child gender differences.

Variables	<i>N</i> (girls, boys)	<i>M</i> (girls, boys)	<i>SD</i> (girls, boys)	<i>t</i>
AAI mother's role reversal with mother	136 (73, 63)	2.81 (2.71, 2.92)	1.65 (1.51, 1.80)	0.73
Infant–mother attachment disorganization	131 (71, 60)	3.49 (3.50, 3.48)	2.19 (2.27, 2.11)	0.07
Mother–toddler role reversal	135 (75, 60)	2.20 (2.16, 2.25)	1.45 (1.58, 1.28)	0.36
Parent education (years)	138 (75, 63)	13.80 (13.7, 13.91)	1.96 (1.98, 1.95)	0.63
Family income (US\$ per month)	138 (75, 63)	1191 (1189, 1194)	448 (461, 435)	0.06

Note: AAI = Adult Attachment Interview.

movements without visible function. Disorganization scores of 5 or above lead to a classification of disorganized attachment; 25% of the current sample was classified as disorganized. In the current study, continuous scores from 1–9 were utilized. Inter-rater reliability (Pearson r), assessed on 22% of the sample, was $r = .91$.

Mother–toddler role reversal

When the child was 2 years old, mothers came to a laboratory session in which the child was videotaped trying to solve two puzzles. Each puzzle was age-appropriate but difficult to solve. The second puzzle was given when the first was completed. The mother was told that the puzzles were for the child to complete, but that she could give any help that she thought the child needed. The session lasted approximately 10 minutes, after which time the examiner came in to collect the puzzles.

Role reversal was coded from videotapes after watching the entire 10-minute session using qualitative ratings of parent–child interaction at 24 months (Cox, 1997). The 7-point role reversal scale combines two scales developed by L. Alan Sroufe and colleagues (Sroufe et al., 1985), and assesses the degree to which parent and child maintain appropriate role relationships. Role reversal is evident when the child takes on the role of parent or spouse with the parent, or the parent takes on the role of the child. In the parent role, the child may take charge of and dictate the session either in a punitive or caregiving controlling manner. In the spousal role, the child may be the object of seductive or flirtatious behavior by the parent. In the peer role, the parent may fail to set limits, may engage the child as a playmate when structure and support are needed, or squabble over toys. A score of 1 reflects appropriate role demarcation with the parent providing structure, support, and limit setting as necessary and physical affection is in response to the child's needs. A score of 7 is given when parent and child roles are reversed throughout the session.

Discriminant validity support for the role reversal construct using this measure has been provided (Macfie, McElwain et al., 2005). Inter-rater reliability was assessed for two coders on 30% of the sample using intraclass correlation coefficients (Winer, Brown, & Michels, 1991). For role reversal with mother, $r_i = .96$.

Mother's childhood role reversal with her mother

AAI role reversal was scored from transcripts. Mothers were interviewed before the birth of their first child on their attachment stance towards their mothers using the AAI (George et al., 1984). As part of the interview, mothers were asked to describe their relationship with their parents, and transcripts were then coded for reported experiences with each parent, including role reversal. Role reversal is defined as the extent to which the parent demands involvement and attention from the child, which entails involving the child in their physical or psychological care. The child may be in the role of parent, spouse, or peer to the parent. Role reversal was assessed on a 9-point scale with 1 = no role reversal, 9 = marked role reversal. At the low end, the parent displays slight incompetence and confusion which is onerous to the child. At the mid-point, the child is normally expected to attend to the parent's needs, although the parent remains competent, for example in responding appropriately when the child is hurt. At the high point, the child serves as parent, spouse, or peer to an unstable parent, and appears to feel responsible for the mental and physical state and continued functioning of the parent. Only mother AAI role reversal with her mother was utilized in the current study.

Results

Descriptive analyses

Table 1 shows means, standard deviations, and sample sizes for variables in the model plus demographic variables for the sample as a whole and by child gender. There were no child gender differences in any of the study variables. Table 2 shows intercorrelations among model variables.

Two father variables were omitted: infant–father attachment disorganization and father–toddler role reversal. They were not related to each other ($r = .02, p > .10$) nor to mother variables (infant–father attachment disorganization did not correlate significantly with mother–toddler role reversal, $r = .01, p > .10$; father–toddler role reversal did not correlate significantly with infant–mother attachment disorganization, $r = -.09, p > .10$).

Hypothesis testing

Before testing hypothesized pathways, both in order to match the N in the previous study (Macfie, McElwain et al., 2005) which did not include attachment disorganization and to maximize power, missing values were replaced with variable means (AAI mother role reversal with mother, $n = 2$; infant–mother attachment disorganization, $n = 7$; mother–toddler role reversal, $n = 3$).

Hypothesis 1

To test the hypothesis that infant–mother attachment disorganization at 12 months would predict mother–toddler role reversal at 24 months, we conducted a regression analysis with infant–mother attachment disorganization as the independent variable, and mother–toddler role reversal as the dependent variable. As predicted, infant–mother attachment disorganization predicted mother–toddler role reversal, contributing a significant 4% (3% adjusted) variance, $F(1, 136) = 5.20, p < .05, \beta = .19, B = .13$.

Hypothesis 2

To test the hypothesis that AAI mother role reversal with her mother before the child was born would predict mother–toddler role reversal at 24 months over and above infant–mother attachment disorganization at 12 months, we conducted a hierarchical multiple regression analysis. In Step 1, infant–mother attachment disorganization accounted for 4% (3% adjusted) of the variance in mother–toddler role reversal, $F(1, 136) = 5.20, p < .05$. In Step 2, infant–mother attachment disorganization and AAI mother role

Table 2. Inter-correlations among study variables.

Variables	1.	2.
1. AAI mother's role reversal with mother	–	
2. Infant–mother attachment disorganization	.00 (129)	
3. Mother–toddler role reversal	.18* (133)	.21* (129)

* $p < .05$.

Note: AAI = Adult Attachment Interview. Sample sizes are shown in parentheses.

reversal with mother together accounted for a significant 7% (6% adjusted) of the variance in mother–toddler role reversal, $F(2, 135) = 4.97, p < .01$. As hypothesized, AAI mother role reversal with her mother significantly predicted mother–toddler role reversal over and above infant–mother attachment disorganization, accounting for an additional 3% of the variance (3% adjusted), $R^2_{change} (\Delta R^2) = .03, F_{change}(1, 135) = 4.60, p < .05$. See Table 3 for all coefficients and significance tests.

Discussion

Current findings

In the current study we examined the relationship between attachment disorganization in infancy and mother–child role reversal when the child was 2 years old. As hypothesized, infant–mother attachment disorganization predicted mother–toddler role reversal. This is a strong and important finding. Previous research found that infant disorganized attachment predicted role reversal of a controlling parent type at 6 years old (van IJzendoorn et al., 1999). The study also expanded on research that demonstrated the intergenerational transmission of role reversal (Macfie, McElwain et al., 2005). Mother AAI role reversal with her mother, assessed before the child was born, predicted mother–toddler role reversal over and above attachment disorganization with mother in infancy.

Developmental psychopathology perspective

These results support a developmental psychopathology perspective such that a child negotiates successive stage-salient issues throughout childhood, with success or failure at each making success or failure at the next more likely (Cicchetti, 1984; Sroufe & Rutter, 1984). Stage-salient issues include the achievement of a secure attachment in the first year, the beginnings of autonomy and self development in the toddler period, self-regulation and the beginnings of peer relationships in the preschool period, competence at school in middle childhood, and identity achievement in adolescence/early adulthood (Sroufe & Rutter, 1984).

Current findings suggest that a disrupted attachment relationship with the caregiver in the infancy period (disorganization) is followed by a disrupted relationship with the caregiver in the toddler period (role reversal), which may interrupt the child's developing autonomy as the child–caregiver relationship focuses on the caregiver's needs at the expense of the child's. This makes an important contribution to the research on role reversal. Previously, it was found that marital conflict predicts role reversal at 2 years old

Table 3. Hierarchical multiple regression analysis predicting mother–toddler role reversal.

Step	Independent variables	ΔR^2	β	<i>B</i>	<i>t</i>	R^2 (adj.)	<i>F</i>	<i>df</i>
1.	Infant–mother attachment disorganization	.19	.13	2.28*	.04 (.03)	5.20*	1136	
2.	Infant–mother attachment disorganization	.19	.13	2.30*				
	AAI mother role reversal with mother	.03*	.18	.16	2.14*	.07 (.06)	4.97**	2135

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

Note: AAI = Adult Attachment Interview.

(Macfie, Houts, Pressel, & Cox, in press). Moreover, role reversal in the toddler period predicts disruptions in self-regulation (attention, externalizing problems) and peer relationships in the preschool period (Macfie, Houts, McElwain, & Cox, 2005) and middle childhood (Sroufe, Bennett, Englund, Urban, & Shulman, 1993; Sroufe & Jacobvitz, 1989). Furthermore, childhood role reversal retrospectively assessed is associated with identity development in college age females (Fullinwider-Bush & Jacobvitz, 1993). Thus, cascading difficulties may result from successive failures in stage-salient issues of development (Cicchetti, 1991) due to role reversal.

Need for preventive interventions

Findings from the current study suggest that interventions address two statistically independent influences on mother–toddler role reversal: all possible sources of infant–mother attachment disorganization, and role reversal in the mother’s own history. It is important to prevent a child as young as 2 years of age assuming responsibility for thinking about and caring for the mother when he or she should be exploring beyond the mother, confident that she will be there to provide care when needed. Developmentally sensitive interventions to bring child developmental back onto an adaptive pathway and thus prevent the development of role reversal may include dyadic Child-Parent Psychotherapy (Lieberman, 1992). Child-Parent Psychotherapy has been shown to increase attachment security in depressed mother–toddler (Cicchetti, Rogosch, & Toth, 2000; Cicchetti, Toth, & Rogosch, 1999) and maltreated mother–preschooler dyads (Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002). Dyadic Child-Parent Psychotherapy also addresses the “ghosts in the nursery” from the mother’s own childhood (Fraiberg, Adelson, & Shapiro, 1975), including her role reversal with her own mother. As the mother feels understood by the therapist, learns more about her own history, feelings, beliefs and needs, and more about her child’s feelings and needs, and more about their child’s feelings and needs, the mother may begin to look elsewhere to meet her own needs. The mother–child relationship will become a greater source of security to the child, and a role reversed self, which is vulnerable to disorganization, may resolve.

Limitations

A limitation in the current study is that subtypes of role reversal were not identified. With a larger sample, differential pathways may be found for child as parent, child as spouse, and child as peer. Also, because role reversal affects not only the mother–child dyad but the whole family system, further assessment of triadic relationships including the father are needed (Jacobvitz, Hazen, Curran, & Hitchens, 2004). Furthermore, the current sample was a normative one. Study of at-risk samples such as maltreated children may reveal even more about the development of role reversal.

Conclusion

A child’s role reversal with his or her parent is a significant risk factor for adverse future development. Because role reversal is a risk factor that resides in the parent–child relationship and not in the individual child, it is not surprising that its origins are to be found in the child’s attachment history with the mother and the mother’s attachment history with her own mother. The vital importance of attachment for a child’s development across generations is underscored.

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