Intergenerational transmission of role reversal between parent and child: Dyadic and family systems internal working models

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Abstract

The current study examined the intergenerational transmission of role reversal within a developmental psychopathology framework. Role reversal is a relationship disturbance in which a parent looks to a child to meet the parent's need for comfort, parenting, intimacy, or play, and the child attempts to meet these needs. In a normative sample, n = 138, fathers and mothers reported on childhood role reversal with their mothers as part of the Adult Attachment Interview, AAI (George, Kaplan, & Main, 1984). Mother – child role reversal was then assessed in an observational paradigm when children were 2 years of age. Based on theories of dyadic and family systems internal working models we hypothesized gender specific replications of role reversal in the next generation. Indeed, mothers who reported role reversal with their mothers during the AAI tended to engage in higher levels of role reversal with their toddler-aged daughters. Furthermore, when fathers reported role reversal with their during the AAI, mothers tended to engage in higher levels of role reversal with their toddler-aged sons. The importance of the inclusion of fathers in family research, the relationship between role reversal and attachment, and implications for preventive interventions are discussed.

Keywords: developmental psychopathology, internal working models, role reversal, fathers

Introduction

Research in developmental psychopathology examines pathways toward and away from disorders including those from early relationship disturbances (Cicchetti, 1993; Sroufe, 1989), which may be repeated in the next generation (Rutter, 1989, 1998). In the current study we examined the intergenerational transmission of role reversal, a relationship disturbance between parent and child. Moreover we tested theories of how internal working models of dyadic relationships (Bowlby, 1973, 1980) and family systems (Sroufe & Fleeson, 1986, 1988) may facilitate intergenerational transmission.

If a mother looks to her child to meet her unmet needs, does the son or daughter grow up to repeat the pattern with his or her own child? This is an important question because role reversal is more common in at-risk samples of young children (Cummings, Hennessy, Rabideau, &

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Cicchetti, 1994; Dean, Malik, Richards, & Stringer, 1986; Macfie et al., 1999), and predicts attention problems (Carlson, Jacobvitz, & Sroufe, 1995; Jacobvitz & Sroufe, 1987; Macfie, Houts, McElwain, & Cox, in press), externalizing symptoms and social problems (Macfie et al., in press). Moreover, in women, concurrent reports of role reversal are associated with eating disorders (Rowa, Kerig, & Geller, 2001), and retrospective reports of childhood role reversal are associated with depression, anxiety, and low self-esteem (Jacobvitz & Bush, 1996). Role reversal is thus a risk factor in a child's development, and intergenerational transmission of role reversal would transfer these risks to the next generation.

In order to assess intergenerational transmission of role reversal, three methodological issues need to be addressed. First, it is important to measure the same construct in each generation (Rutter, 1998). In the current study we assessed role reversal in each generation. Second, it is important to avoid method invariance when the same informant is used to report on two generations and if the same types of data are used. Rather, multi-source, multi-method measures are preferred (Simons, Whitbeck, Conger, & Wu, 1991). We utilized a clinical interview, the Adult Attachment Interview, AAI (George et al., 1984) to assess role reversal in the first generation, and an observational paradigm to assess role reversal in the second (Cox, February, 1997). Third, a prospective study is desirable for the study of intergenerational transmission (Cairns, Cairns, Xie, Leung, & Hearne, 1998). However, because it is not possible to predict marriage partners for participants in advance, some retrospective data is necessary in order to include both parents in the second generation (Rutter, 1998). We therefore first assessed mothers' and fathers' retrospective reports of childhood role reversal with their mother utilizing the AAI. We then predicted prospectively to role reversal between both boys and girls and their mothers when the child was 2 years old. We were thus able to avoid these three methodological problems in the current study of the intergenerational transmission of role reversal.

Definition of role reversal

In role reversal, a parent looks to a child to meet his or her adult or unmet childhood needs instead of looking to a spouse or other adult (Boszormenyi-Nagy & Spark, 1973; Flanzraich & Dunsavage, 1977; Jurkovic, 1998; Morris & Gould, 1963; Sroufe, Jacobvitz, Mangelsdorf, DeAngelo, & Ward, 1985). A child is thus expected to take the role of parent, spouse, or peer towards his or her parent (Kerig, 2003). It has been found that the child may *choose* to try to meet a parent's needs in order, for example, to soothe a mother's distress and thus gain a feeling of greater emotional security in the relationship (Cummings & Davies, 1994). It may be appropriate for a child to help care for a sick parent or help with younger siblings when he or she is mature enough to do so without interfering with his or her own development. However, role reversal is defined as inappropriate expectations of a child that exceed his capacity to comply. Role reversal is one type of boundary dissolution, which also comprises intrusiveness, over-protectiveness, and enmeshment (Jacobvitz, Morgan, Kretchmar, & Morgan, 1991; Kerig, 2003), dimensions not assessed in the current study.

Although role reversal may help a parent to meet his or her unmet needs, it is also thought to compromise the child's development (Lyons-Ruth, Bronfman, & Atwood, 1999; Zeanah & Klitzke, 1991). Specifically, role reversal may interfere with the development of autonomy and individuation (self-development) in the toddler period as the child focuses more on the parent's needs than on his or her own and the parent seeks to keep the child dependent (Jacobvitz, Hazen, Feldman, & Steffeck, 2003; Jacobvitz et al., 1991; Kerig, 2003). Indeed, a seductive role reversal between mothers and sons is associated with concurrent lack of maternal support for toddlers (Sroufe & Ward, 1980) and role reversal is also associated with problems with identity exploration for adults (Fullinwider-Bush & Jacobvitz, 1993). Interference with self-development in the toddler period may in turn affect future stagesalient issues (Sroufe & Rutter, 1984) such as problems with self-regulation in the preschool period (Jacobvitz & Sroufe, 1987; Macfie et al., in press). Because problems with selfdevelopment are associated with role reversal, in the current study we assessed role reversal in the toddler period when self-development is the stage-salient issue.

Intergenerational transmission of boundary dissolution

Although there have been no studies of the intergenerational transmission of role reversal per se, two studies have explored the intergenerational transmission of boundary dissolution defined to include role reversal. In the first, a sub-sample of eight at-risk mothers was identified as being in a seductive type role reversal with their sons at 2 years of age. Seven of these eight mothers retrospectively reported that there had been some kind of boundary dissolution when they were children: either they were involved in a role reversal with their mother or an incestuous relationship with their father, or a sibling was involved in an incestuous relationship with their father, or they had experienced sexual abuse from someone outside the family. Moreover, mothers' seductive role reversal with sons was associated with concurrent rejection of daughters (Sroufe & Ward, 1980).

These results are important because they are the first to suggest inter-generational transmission of boundary dissolution and the first to examine boundary dissolution at a family systems level involving differential patterns for sons and daughters. However, because of the small sample size, the absence of fathers in a largely single-parent sample, and the broad construct of boundary dissolution, it is not clear exactly what was transmitted intergenerationally or by whom. In the current study we were able to assess a larger sample, and focus specifically on role reversal. We examined the transmission of role reversal between both mothers and fathers and their mothers to same gender-specific pattern in the next generation.

The second study of the intergenerational transmission of boundary disturbances utilized a normative sample (Jacobvitz et al., 1991). Grandmothers who retrospectively reported high maternal overprotection and low maternal autonomy support when they were children were more likely to be in a current role reversal with their adult daughters than were grandmothers who reported low maternal overprotection and high autonomy support. Moreover, those adult daughters who themselves retrospectively reported high maternal overprotection and low autonomy support when they were young were more intrusive with their infants at both 6 and 9 months than were adult daughters who reported low maternal overprotection and high autonomy support.

This is an important study of the inter-generational transmission of boundary dissolution across three generations. However, fathers were again not included and the focus of the study was on role reversal in adults but not in children. It would have been interesting to know if maternal intrusiveness with these infants developed into role reversal when they turned 2 years of age. Our goal in the current study was to build on these two prior studies, to focus specifically on the inter-generational transmission of role reversal, to include fathers, and to assess role reversal in toddlers when self-development is the stage-salient issue.

Internal working models and the intergenerational transmission of role reversal

Internal working models were originally conceptualized by John Bowlby and derived from object relations and cognitive theories (Bowlby, 1969/1982). Bowlby theorized that the child

developed small-scale models of reality to help anticipate what to expect and decide how to behave in the future. These internal working models were conceptualized at first as pertaining to *all* representations of the child's experience (Bretherton & Munholland, 1999). Bowlby later focused his theorizing on internal working models on representations of self and other arising out of the attachment relationship with the primary caregiver during the first year (Bowlby, 1973). Thus, with a sensitive and responsive caregiver, an infant is thought to develop an internal working model of others as available and the self as worthy of care. With a rejecting caregiver, an infant is thought to develop an internal working model of others as unavailable and the self as unworthy of care.

However, the 'working' in internal working models reflects Bowlby's belief that these representations change over time. Indeed, as a child develops, internal working models are thought to become more complex (Main, Kaplan, & Cassidy, 1985; Thompson, 1999). For example, an internal working model may also include representations of others as supportive of exploratory activities and the self as competent (Bretherton & Munholland, 1999), representations appropriate to self-development (autonomy and individuation) in the toddler period following the development of attachment in infancy.

How might an internal working model of role reversal develop? When a toddler experiences a parent as distressed, unresponsive to his or her need for comfort, and as unsupportive of his or her need for autonomy and individuation, the toddler may also discover that the parent is responsive to the child's attempts to soothe the parent. Role reversal may develop as the parent looks to the child to meet the parent's needs and the child complies so as to maintain proximity to the parent even at the expense of expressing his or her own attachment and autonomy needs (West & Keller, 1991). Out of this experience, a child may develop an internal working model of role reversal: mother as in need of care and the child as attempting to meet those needs.

How may an internal working model of role reversal be transmitted intergenerationally? Both sides of early relationships are thought to be internalized (Sroufe & Fleeson, 1986) such that an individual can later enact either side. A child in role reversal may therefore grow up to take the parent's part and expect his or her own child to take the child's. The genders of child and parent involved in the role reversal would thus be replicated in the next generation. For example, as examined in the current study, a daughter in role reversal with her mother may grow up with unmet needs and expect her own daughter (but not her son) to meet those needs thus ensuring that role reversal is carried forward to the next generation.

However, role reversal is not simply a dyadic relationship disturbance between child and parent, it is also a family disturbance. A family is a system (Cox & Paley, 1997; Minuchin, 1974), and as a dynamic system is biased towards self-stabilization and continuity (Sameroff, 1995; Thelen & Smith, 1998). Because each dyadic relationship in the family affects and is affected by the others, children are thought to develop an internal working model of the whole family system. Moreover, just as children are thought to internalize representations of both sides of early relationships that are then carried forward to future relationships (Bowlby, 1973; Main et al., 1985; Sroufe & Fleeson, 1986), children are also thought to internalize representations of the whole families when they grow up (Sroufe & Fleeson, 1988). Rather than face the difficulty and unknowns inherent in forging a new system, children may grow up and choose mates compatible with their internal working model of the family so they know what to expect. Thus assortative mating is thought to make it likely that family-level internal working models of gender-specified roles for parents and children are carried forward to the next generation (Sroufe & Fleeson, 1988).

Family-level internal working models may have implications for the intergenerational transmission of mother – *son* role reversal. Whereas mother – *daughter* role reversal may be transmitted directly to the next generation through dyadic internal working models, mother – *son* role reversal may be transmitted indirectly through assertive mating through family-level internal working models. Indeed, girls are thought to stay connected to their mothers throughout development, and therefore learn directly from their mothers how to be mothers themselves. However, boys need to separate from their mothers in order to develop a male identity and may reconnect in adulthood by marrying a woman similar to their mothers (Chodorow, 1978). Moreover, the choice of a spouse is thought to be influenced by similarity with an early caregiver (Sandler, 1976). Thus, whereas a girl may simply repeat the pattern of role reversal that she learned with her mother in the next generation, a boy who is in a role reversal with his mother may grow up to marry a woman who has an internal working model of the family similar to his. This woman may then repeat her husband's role reversal with his mother with their son (but not their daughter) in the next generation.

The current study

In the current study we assessed role reversal between both parents and their mothers in a clinical interview utilizing the AAI (George et al., 1984) before their child was born. We focused on each parent's AAI role reversal with his or her mother and a repetition of the pattern in mother–toddler role reversal. Based on prior research on the inter-generational transmission of boundary dissolution, and on theorized transmission of both dyadic and family-level internal working models, we hypothesized that firstly, a mother's role reversal with her mother would predict her role reversal with her daughter but not her son, and secondly a father's role reversal with his mother would predict his wife's role reversal with their son but not their daughter. We also sought to provide discriminant predictive validity for the construct of role reversal and to explore the relationship between role reversal and AAI classifications.

Method

Participants

Families were recruited from prenatal classes in a four-county rural mountainous area of the southeastern United States. 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 pre-natally, 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 I for sample sizes.

Fathers' average age at the prenatal visit was 28 years 4 months (range 19-41 years), and mothers' average age was 27 years 2 months (range 18-35 years). The sample spanned a wide range of SES. Fathers had an average of 13 years 11 months of education (range 9-22 years), and mothers 13 years 10 months of education (range 8-18 years). Average family income was \$2 450 per month (range \$652-\$5002 per month). Couples had been married at the prenatal visit an average of 3 years 5 months (range 3 months-17 years). This marriage was a first marriage for 88% of the men and 85% of the women. The sample, representative of this area, comprised 97% European American, and 3% African American families.

Variables	n (girls, boys)	M (girls, boys)	SD (girls, boys)	t
AAI mother RR with her mother	136 (73, 63)	2.81 (2.71, 2.92)	1.65 (1.51, 1.80)	.73
AAI father RR with his mother	137 (75, 62)	2.26 (2.24, 2.29)	1.45 (1.39, 1.53)	.20
Mother-toddler RR	135 (75, 60)	2.20 (2.16, 2.25)	1.45 (1.58, 1.28)	.36
Parent education (years)	138 (75, 63)	13.80 (13.7, 13.91)	1.96 (1.98, 1.95)	.63
Parent income (US\$ per month)	138 (75, 63)	1 191 (1 189, 1 194)	448 (461, 435)	.06

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

AAI = Adult Attachment Interview, RR = role reversal.

Procedures and measures

Mothers' and fathers' role reversal with their mothers. Both parents were interviewed before the birth of their first child on their attachment stance towards their parents using the AAI (George et al., 1984). As part of the interview, each parent was 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 hurt. At the high point, the child serves as parent, spouse, or peer to an unstable parent, and feels responsible for the mental and physical state and continued functioning of the parent.

Because of low base rates of role reversal reported during the AAI with fathers, only role reversal with their mothers was utilized in the present study. Mean AAI role reversal for fathers with their fathers was 1.47, SD = 1.00 whereas mean AAI role reversal for fathers with their mothers was 2.26, SD = 1.45. Mean AAI role reversal for mothers with their father was 1.90, SD = 1.23 whereas mean AAI role reversal for mothers with their mothers was 2.81, SD = 1.65.

An experienced rater trained by Mary Main coded the interviews. Inter-rater reliability was calculated for the five overall AAI classifications based on the coherence with which parents recounted their past experiences (including role reversal) together with their current state of mind: autonomous, preoccupied, dismissing, unresolved with respect to trauma, or cannot classify. This rater then achieved reliability with Erik Hesse, an expert coder and collaborator with Mary Main. Reliability was assessed on a separate sample of interviews coded at the same time as those for the current investigation. Inter-rater reliability for overall secure versus insecure classifications was 93% agreement and for the five more specific classifications was 87% agreement.

Additional AAI scales were assessed for a test of discriminant predictive validity. Scales rated on 9-point scales included maternal neglect, maternal rejection, unresolved mourning, and unresolved trauma. Maternal neglect refers to a mother who although potentially physically available is inattentive, preoccupied, uninvolved, or psychologically unavailable. Maternal rejection refers to a mother who actively turns away from the child's expressed attachment needs for comfort, affection, attention, and security. Unresolved mourning refers to lapses in discourse related to the death of significant figures. Unresolved trauma reflects current confusion or preoccupation regarding traumas such as physical or sexual abuse.

Mother's role reversal with her toddler. When the child reached 2 years of age, both parents came to a laboratory session in which the child was videotaped trying to solve two puzzles with each parent in turn. Each puzzle was age-appropriate but difficult to solve. Different sets of puzzles were used for mothers and fathers and the order in which each set of puzzles was offered, and which parent was observed first was counterbalanced. The second puzzle was given when the first was completed. The parent was told that the puzzles were for the child to complete, but that the parent could give any help that they thought the child needed. The session lasted approximately 10 minutes at which time the examiner came in to collect the puzzles.

Because of low base rates for AAI role reversal with father detailed above, and because we predicted exact gender-specific replications of role reversal in the next generation, no predictions could be made to father-toddler role reversal. Thus, only mother-toddler interactions were utilized in the current study.

Role reversal was coded from videotapes using qualitative ratings of parent/child interaction at 24 months (Cox, February, 1997). The role reversal scale combines two scales developed by L. Alan Sroufe and colleagues (Sroufe et al., 1985). The 7-point scale assesses the degree to which parent and child maintain appropriate role relationships and the parent displays appropriate physical contact. Role reversal is evident when the child takes on the role of parent, peer, or spouse with the parent. A score of 1 reflects appropriate role demarcation with the parent providing structure, support, and setting limits 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. Both child and parent behaviors are coded. The child may take charge of and dictate the session either in a caretaking or controlling parental manner. The parent may fail to set limits, may defer to the child's dictating the situation, may engage the child as a playmate when structure and support are needed, or may behave in a seductive manner toward the child. Utilizing this scale, role reversal has been shown to predict attention and other behavior problems in subsequent developmental periods (Carlson et al., 1995; Jacobvitz & Sroufe, 1987; Macfie et al., in press). 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, $r_i = .96$.

Additional parenting variables were coded for discriminant predictive validity from the same mother-toddler puzzle session: maternal intrusiveness, sensitivity, and detachment. All were coded on 7-point scales. Intrusiveness was coded when the mother interferes with the child's behavior contrary to the child's needs based on the mother's own agenda (e.g., the mother does not allow the child autonomy in solving the puzzles but instead tells the child what to do). Sensitivity reflects appropriate and timely support for the child (e.g., the mother provides the right amount of scaffolding to help the child solve the puzzle). Detachment describes a mother who is passive and emotionally disengaged from the child (e.g., the mother takes no interest in the child's attempts to solve the puzzle). Inter-rater reliability was assessed for two coders on 30% of the sample using intraclass correlation coefficients. For mother intrusiveness, $r_i = .95$, for mother sensitivity, $r_i = .94$, and for mother detachment, $r_i = .97$.

Results

Analytic strategy

We first tested both hypotheses. We then provided evidence of discriminant predictive validity for the role reversal construct. Finally, we explored the relationship between AAI

classifications and AAI role reversal, and the relationship between AAI classifications and mother-toddler role reversal.

Hypothesis testing

See Table II for correlations among study variables. In order to test hypotheses that were specific to boys or girls we ran regression analyses separately by child gender. In each analysis, AAI role reversal with the mother was the independent variable and mother–toddler role reversal was the dependent variable.

Hypothesis 1. To test the hypothesis that mother's role reversal with her mother would predict mother's role reversal with her toddler-aged daughter, we conducted a regression analysis with mother's AAI role reversal with her mother as the independent variable, and mother's role reversal with her toddler-aged daughter as the dependent variable. Mother's AAI role reversal with her mother significantly predicted her role reversal with her daughter at 2 years of age, contributing a significant 7% (6% adjusted) of variance, F(1,71) = 5.35, p < .05, $\beta = .27$, B = .28.

To examine whether or not the prediction held true for girls but not boys as hypothesized, the regression model was repeated with mother role reversal with her toddler-aged son as the dependent variable. As predicted, mother-daughter AAI role reversal did not predict mother son role reversal at 2 years of age, F(1,58) = 0.37, p > .10, $\beta = .08$, B = .06.

Hypothesis 2. To test the hypothesis that father's AAI role reversal with his mother would predict his wife's role reversal with their son, we conducted a third regression analysis with father's AAI role reversal with his mother as the independent variable, and mother's role reversal with her toddler-aged son as the dependent variable. As predicted, father's AAI role reversal with his mother accounted for a significant 9% (8% adjusted) of variance in mother role reversal with her toddler-aged son, F(1,57) = 5.72, p < .05, $\beta = .30$, B = .25.

Variables	1	2	3
1 AAI mother RR with her mother 2 AAI father RR with his mother 3 Mother-toddler RR	_ 01(135) 18* (133)	.13 (134)	_

Table	II.	Inter-correlations	among	study	variables	for	the	whole	samp	le
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*p < .05; **p < .01; ***p < .001

AAI = Adult Attachment Interview, RR = role reversal. Sample sizes are shown in parentheses.

Table III	Inter-correlations	among	study	variables	hv c	hild o	render
rable III.	milei-conciations	among	study	variables	Uy C	unu ş	genuer

Variables	1	2	3	
1 AAI mother RR with her mother	_	07 (62)	.08 (60)	
2 AAI father RR with his mother	.05 (73)	_	.30* (59))	
3 Mother-toddler RR	.27* (73)	.01 (75)	_	

†p<.10; **p<*.05; ****p<*.001

AAI=Adult Attachment Interview, RR=role reversal. Girls are below and boys are above the diagonal. Sample sizes are shown in parentheses.

To examine whether or not the effect held for boys but not girls as hypothesized, the regression model was repeated predicting to mother-toddler role reversal with girls. As expected, father's AAI role reversal with his mother did not predict his wife's role reversal with their toddler-aged daughter, F(1,73) = 0.003, p > .10, $\beta = .007$, B = .008.

Discriminant predictive validity

In order to test whether or not the intergenerational transmission of role reversal might reflect a more general construct rather than role reversal per se we assessed discriminant predictive validity. Specifically, we assessed firstly whether AAI role reversal predicts other problematic aspects of parenting in the next generation in addition to role reversal, and secondly whether other adverse features of childrearing history than role reversal predicted role reversal in the next generation.

In a series of regressions we assessed whether AAI role reversal predicted other problematic aspects of parenting assessed in the same puzzle task in addition to role reversal: intrusiveness, sensitivity (lack of), and detachment. Mother's AAI role reversal with her mother did not predict mother intrusiveness with girls, F(1,71) = 1.08, p > .10, or with boys, F(1,58) = 0.008, p > .10. Neither did father's AAI role reversal with his mother predict mother intrusiveness with girls, F(1,73) = 0.92, p > .10, or with boys, F(1,57) = 0.46, p > .10. Moreover, mother's AAI role reversal with her mother did not predict mother sensitivity (negatively) with girls, F(1,71) = 1.86, p > .10, or with boys, F(1,58) = 0.02, p > .10. Neither did father's AAI role reversal with his mother predict mother sensitivity (negatively) with girls, F(1,73) = 0.01, p > .10, or with boys, F(1,57) = 1.26, p > .10. Finally, mother's AAI role reversal did not predict mother detachment with girls, F(1,71) = 0.54, p > .10, or with boys, F(1,58) = 0.008, p > .10. Neither did father's AAI role reversal with his mother predict mother detachment with girls, F(1,73) = 0.02, p > .10, or with boys, F(1,57) = 0.33, p > .10. Thus although AAI role reversal predicted role reversal in the next generation, it did not predict other measures of inadequate parenting assessed within the same paradigm. In no case did AAI role reversal with mother as reported by mothers and fathers significantly predict maternal intrusiveness, lack of sensitivity, or detachment during the mother-toddler puzzle task. These analyses thus provide evidence of discriminant predictive validity for the intergenerational transmission of role reversal per se.

We then assessed whether other adverse features of childrearing history in addition to role reversal predicted role reversal in the next generation: maternal neglect, maternal rejection, unresolved mourning, and unresolved trauma. A regression analysis was conducted for mother's history variables in which maternal neglect, maternal rejection, unresolved mourning, and unresolved trauma were entered together as independent variables and mother-toddler role reversal was the dependent variable. The overall model was not significant for girls, F(4,65) = 1.57, p > .10, nor for boys, F(4,54) = 1.13, p > .10.

A second regression was conducted for father's history variables in which maternal neglect, maternal rejection, unresolved mourning, and unresolved trauma were entered together as independent variables and mother-toddler role reversal was the dependent variable. Again, the overall model was not significant for girls, F(4,67) = 1.81, p > .10, nor for boys, F(4,53) = 1.43, p > .10. Thus, AAI role reversal uniquely predicted role reversal in the next generation. Neither maternal neglect, maternal rejection, unresolved mourning, nor unresolved trauma reported in the AAI predicted mother-toddler role reversal, providing additional evidence of discriminant validity for the intergenerational transmission of role reversal.

The relationship between AAI role reversal and AAI classifications

We explored how mother and father AAI role reversal with mother are associated with the overall AAI classifications. Both 3-way (autonomous, dismissing, and preoccupied) and 4-way (3-way classifications plus unresolved) were examined. We did not include the 'cannot classify' category. We conducted four ANOVAs with AAI classifications as the independent variable and AAI role reversal as the dependent variable. Contrasts were tested between the autonomous classification and each of the other classifications if there was a significant overall effect for AAI classification on AAI role reversal.

Mother's AAI 3-way classifications were significantly associated with her AAI role reversal with her mother, F(2,124) = 4.22, p < .05, and the contrast between preoccupied and autonomous AAI attachment was significant, p < .05. Mother's 4-way AAI classifications were also significantly associated with her AAI role reversal with her mother, F(3,129) = 3.13, p < .05, and again the contrast between preoccupied and autonomous AAI attachment was significant, p < .05. Moreover, father's AAI 3-way classifications were significantly associated with his AAI role reversal with his mother, F(2,127) = 7.58, p = .001, and the contrast between preoccupied and autonomous AAI attachment was significant, p = .001. Father's 4-way classifications were also significantly associated with his AAI role reversal with his mother, F(2,127) = 7.58, p = .001, and the contrast between preoccupied and autonomous AAI attachment was significant, p = .001. Father's 4-way classifications were also significantly associated with his AAI role reversal with his mother, F(3,130) = 4.63, p < .01, and the contrast between preoccupied and autonomous AAI attachment was again significant, p < .01.

There was thus a significant relationship between the overall AAI classifications, both 3way and 4-way and AAI role reversal with mother for both fathers and mothers such that the preoccupied classification was more strongly association with AAI role reversal than was the autonomous classification.

The relationship between mother-toddler role reversal and AAI classifications

Given the relationship between AAI classifications and AAI role reversal, we tested whether AAI classifications were associated with mother-toddler role reversal. We examined the relationship between AAI attachment classifications (3-way and 4-way) for both mothers and fathers and mother-toddler role reversal (overall and by child gender) with a second set of ANOVAS with AAI classification as the independent variable and mother-toddler role reversal as the dependent variable. Contrasts were tested between the autonomous classification and each of the other classifications if there was a significant overall effect for AAI classification on mother-toddler role reversal.

Mothers' AAI. In the whole sample, mother's AAI 3-way classifications were not significantly associated with mother–toddler role reversal, F(2,123) = 0.50, p > .10, and nor were mother's 4-way classifications F(3,128) = 2.11, p = .10. Moreover, when the sample was broken down by child gender, neither mother's AAI 3-way classifications, F(2,68) = 0.29, p > .10, nor her AAI 4-way classifications, F(3,70) = 1.00, p > .10, were significantly associated with mother–daughter toddler role reversal. Furthermore, neither mother's AAI 3-way classifications, F(2,52) = 0.65, p > .10, nor her 4-way classification, F(3,54) = 1.13, p > .10 were associated with mother–son toddler role reversal.

Fathers' AAI. In the whole sample, neither father's AAI 3-way classifications, F(2,125) = 0.57, p > .10, nor his 4-way classifications, F(3,128) = 0.36, p > .10, were significantly associated with mother – toddler role reversal. Moreover, when the sample was broken down by child gender, neither father's AAI 3-way classifications, F(2,67) = 1.32,

p > .10, nor his AAI 4-way classifications, F(3,69) = 0.95, p > .10, were significantly associated with mother-daughter toddler role reversal. Finally, neither father's AAI 3-way classifications, F(2,55) = 0.13, p > .10, nor his 4-way classification, F(3,55) = 0.16, p > .10 were associated with mother-son toddler role reversal.

There was thus no significant relationship between AAI role reversal and mother – toddler role reversal for mothers or fathers or with boys or girls and individual contrasts between AAI classifications were therefore not tested. Although AAI role reversal was significantly associated with mother – toddler role reversal, AAI classifications were not.

In summary, both hypotheses for the inter-generational transmission of mother – daughter and mother – son role reversal were supported where role reversal describes a mother – child relationship in which the child takes in part the role of parent, spouse, or peer with the mother. First, mothers' AAI role reversal with her mother predicted her role reversal with toddler-aged daughters but not sons. Second, fathers' AAI role reversal with his mother predicted his wife's role reversal with toddler-aged sons but not daughters. Tests of discriminant predictive validity clearly demonstrated that it was role reversal specifically in the next generation that followed from AAI role reversal and not other aspects of problematic parenting, and that it was the intergenerational transmission of role reversal rather than another adverse childrearing variable in the parents' history that predicted role reversal in the next generation. Moreover, although AAI role reversal was associated with the preoccupied AAI classification for both mothers and fathers, AAI classifications did not significantly predict mother – toddler role reversal, but AAI role reversal did.

Discussion

The current study examined the intergenerational transmission of role reversal between both parents and their mothers. Role reversal between mothers, fathers, and their mothers was assessed prior to their children's birth utilizing the AAI (George et al., 1984), and role reversal between mothers and their child was assessed when their child was 2 years old in an observational paradigm (Cox, February, 1997). Both fathers and mothers who reported role reversal in childhood with their own mother saw the pattern repeated in the next generation: mothers who experienced a role reversal with their own mother were more likely to be in a role reversal with their daughter at 2 years of age; and fathers who experienced a role reversal with their own mother were more likely to marry women who were in a role reversal with their son at 2 years of age. Moreover, in compelling evidence of discriminant predictive validity for the role reversal construct, mother - toddler role reversal was not associated with other AAI indices of adverse childrearing history (maternal rejection, maternal neglect, unresolved mourning, and unresolved abuse) and AAI role reversal did not predict other parenting problems in the next generation (intrusiveness, lack of sensitivity, and detachment). Furthermore, although AAI role reversal was associated with the preoccupied AAI classification, AAI classifications did not predict mother-toddler role reversal, only AAI role reversal did.

These findings of the intergenerational transmission of mother-daughter and motherson role reversal are important because they reinforce the value of assessing, when feasible, both fathers and mothers in family research. If mothers alone had been assessed in the current study, the repetition of the mother-daughter role reversal in the next generation would have been revealed, but the repetition of the mother-son role reversal would not have. Moreover, findings also reinforce the value of examining differential pathways for boys and girls.

The finding that a mother son role reversal was transmitted intergenerationally is especially interesting because it supports an extension of attachment theory from internalizations of dyadic relationships (Bowlby, 1973) to internalizations of whole family systems (Sroufe & Fleeson, 1988) that are carried forward into future relationships by means of assortative mating: a man and women with similar internalizations of the whole family system may marry one another.

In contrast, social learning theory proposes that behavior patterns are repeated following learning through observation or participation (Bandura & Walters, 1963). Although the current finding of the intergenerational transmission of mother–daughter role reversal could be explained by social learning theory, the intergenerational transmission of mother– son role reversal could not. Indeed, other research supports the role of assortative mating such that men and women are likely to marry one another based on concordance of autonomy versus insecurity with respect to their attachment stance as adults (van Ijzendoorn & Bakermans-Kranenburg, 1997). Furthermore, in the area of sexual abuse: women who were sexually abused by their fathers tend to marry men who sexually abuse their daughters (Browne & Finkelhor, 1986; Kendall-Tackett, Williams, & Finkelhor, 1993).

Because internal working models are theorized to originate in the attachment relationship, the question may be asked: how does attachment in infancy relate to role reversal in the toddler period? Disorganized/disoriented (D) attachment in infancy predicted role reversal at 6 years of age (Main et al., 1985). These 6-year-olds displayed either a caretaking or punitive controlling role reversal towards their mothers on reunion. Infants categorized as avoidant are thought to repress their need for attachment but not their need for exploration, and infants categorized as anxious-resistant are thought to repress their need for exploration but not their need for attachment. Infants categorized as disorganized may repress both exploration and attachment. Role reversal may then be a way in which these children gain some measure of security through control of the relationship at 6 years of age following feeling overwhelmed and being without a strategy with which to cope with frightened or frightening caregivers in infancy (Main & Hesse, 1990). Further research is needed to assess whether or not D attachment provides the basis for role reversal in successive developmental periods following infancy prior to 6 years of age beginning with toddlerhood.

The concurrent relationship between AAI attachment classifications and AAI role reversal suggested that adults reporting role reversal as children were more likely to be classified as preoccupied than autonomous. However, because AAI classifications were not significantly related to mother – toddler role reversal in the next generation, role reversal with a parent may not easily be overcome whether or not one is able to discuss the experience coherently and thus be classified as autonomous. Security of adult attachment alone may not be enough to avoid a repetition of role reversal in the next generation.

Limitations of this study include the inability to utilize role reversal with father in the first generation due to low base rates in this normative sample. Both fathers and mothers retrospectively reported low levels of role reversal with their own fathers when they were children. We therefore were unable to predict a repetition of father – child role reversal with toddlers in the next generation. Although high-risk samples might yield higher levels of reported role reversals with fathers during the AAI, for example, of an incestuous father – daughter role reversal, fathers in high-risk samples are less likely to be available to participate in a study. The full study of the role of fathers remains a challenge for future research.

Another limitation of the present study is that only one child in each family was studied. Differential intergenerational transmission for boys and girls might better be examined if both a girl and a boy in the same family were studied. For example, rejection of the daughter and role reversal with the son may be transmitted from one generation to the next.

This study has important implications for preventive interventions. Once a maladaptive developmental pathway is identified, developmentally sensitive interventions (Cicchetti &

Toth, 1992, 1998) may be designed to divert it. Prevention of the intergenerational transmission of role reversal may be informed by research with maltreated children. It is thought that the expectation in maltreating families that the child take care of the parent in role reversal may contribute to the maltreatment when the child fails to do so (Howes & Cicchetti, 1993; Morris & Gould, 1963). Indeed, role reversal occurs more often in maltreated children than in comparison children as seen in their story representations (Dean et al., 1986; Macfie et al., 1999) and in their behavior (Cummings et al., 1994).

Maltreatment may be transmitted intergenerationally and this transmission is thought to be due to in part to internalized representations of relationships (Crittenden, 1988; Kaufman & Zigler, 1989). However, an interruption in the intergenerational transmission of maltreatment was found when mother had had a relationship with an emotionally supportive adult in childhood, had been in therapy, or was in a current emotionally supportive relationships with a spouse or family member (Egeland, Jacobvitz, & Sroufe, 1988). Relationships that provide emotional support may effect a change in the internal working models of relationships and family systems that are then carried forward to relationships with their children (Fraiberg, Adelson, & Shapiro, 1975; Main & Goldwyn, 1984). In an intervention, parents in role reversal might thus be encouraged to get their unmet needs for intimacy and care from a spouse, therapist, or other adult rather than look to their child. This additional support may obviate the need for role reversal, alter the internal working model, and prevent its intergenerational transmission.

In conclusion, from a developmental psychopathology perspective (Cicchetti, 1984; Sroufe & Rutter, 1984), these findings on the intergenerational transmission of role reversal may also inform normative development. In a family system parents ideally meet their needs for intimacy and care with one another or with other adults. Parents then are free to nurture their children without expecting the children to nurture them. Children may then grow up with internal working models of families such that adults take care of children and they do not have to take care of their parents. They may then grow up able to take care of the next generation (Sroufe & Fleeson, 1988). In contrast, children in role reversed relationships may not get their needs for nurturance met, may not be competent in intimate relationships with partners, and may look to their children to fill their unmet needs. Behavior problems (Carlson et al., 1995; Jacobvitz & Sroufe, 1987; Macfie et al., in press) and psychopathology (Jacobvitz & Bush, 1996; Rowa et al., 2001) associated with role reversal may be symptoms of this larger system wide problem of the intergenerational transmission of maladaptive internal working models.

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References

Bandura, A., & Walters, R. H. (1963). Social learning and personality development. Engelwood Cliffs, NJ: Prentice-Hall.

Boszormenyi-Nagy, I., & Spark, G. M. (1973). Invisible loyalties: Reciprocity in intergenerational family therapy. Hagerstown, MD: Harper & Row.

Bowlby, J. (1969/1982). Attachment and loss. Vol. I: Attachment (2nd ed.). New York: Basic Books.

Bowlby, J. (1973). Attachment and loss. Vol. II: Separation. New York: Basic Books.

Bowlby, J. (1980). Attachment and loss. Vol. III: Loss. New York: Basic Books.

- Bretherton, I., & Munholland, K. A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P. R. Shaw (Eds.), *Handbook of attachment: Theory, research, and clinical implications* (pp. 89-111). New York: Guilford.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. Psychological Bulletin, 99, 66–77.
- Cairns, R. B., Cairns, B. D., Xie, H., Leung, M., & Hearne, S. (1998). Paths across generations: Academic competence and aggressive behaviors in young mothers and their children. *Developmental Psychology*, 34, 1162–1174.
- Carlson, E. A., Jacobvitz, D., & Sroufe, L. A. L. A. (1995). A developmental investigation of inattentiveness and hyperactivity. *Child Development*, 66, 37–54.
- Chodorow, N. (1978). The reproduction of mothering: Psychoanalysis and the sociology of gender. Berkeley: University of California Press.
- Cicchetti, D. (1984). The emergence of developmental psychopathology. Child Development, 55, 1-7.
- Cicchetti, D. (1993). Developmental psychopathology: Reactions, reflections, projections. *Developmental Review*, 13, 471-502.
- Cicchetti, D., & Toth, S. L. (1992). The role of developmental theory in prevention and intervention. *Development and Psychopathology*, 4, 489–493.
- Cicchetti, D., & Toth, S. L. (Eds.). (1998). Perspectives on research and practice in developmental psychopathology.
- Cox, M. J. (February 1997). Qualitative ratings of parent/child interaction at 24 months of age. Unpublished manuscript. University of North Carolina at Chapel Hill.
- Cox, M. J., & Paley, B. (1997). Families as systems. Annual Review of Psychology, 48, 243-267.
- Crittenden, P. M. (1988). Relationships at risk. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 136-174). Hillsdale, NJ: Erlbaum.
- Cummings, E. M., & Davies, P. (1994). Children and marital conflict. New York: Guilford.
- Cummings, E. M., Hennessy, K. D., Rabideau, G. J., & Cicchetti, D. (1994). Responses of physically abused boys to interadult anger involving their mothers. *Development and Psychopathology*, *6*, 31–41.
- Dean, A. L., Malik, M. M., Richards, W., & Stringer, S. A. (1986). Effect of parental maltreatment on children's conceptions of interpersonal relationships. *Developmental Psychology*, 22, 617–626.
- Egeland, B. R., Jacobvitz, D., & Sroufe, L. A. (1988). Breaking the cycle of abuse. Child Development, 58, 1080-1088.
- Flanzraich, M., & Dunsavage, I. (1977). Role reversal in abused/neglected families: Implications for child welfare workers. Children Today, November–December, 13–36.
- Fraiberg, S., Adelson, E., & Shapiro, V. (1975). Ghosts in the nursery. Journal of the American Academy of Child and Adolescent Psychiatry, 14, 387-421.
- Fullinwider-Bush, N., & Jacobvitz, D. B. (1993). The transition to young adulthood: Generational boundary dissolution and female identity development. *Family Process*, 32, 87–103.
- George, C., Kaplan, N., & Main, M. (1984). The attachment interview for adults. Unpublished manuscript, University of California, Berkeley.
- Howes, P. W., & Cicchetti, D. (1993). A family/relational perspective on maltreating families: Parallel processes across systems and social policy implications. In D. Cicchetti & S. L. Toth (Eds.), *Child abuse, child development,* and social policy. Norwood, NJ: Ablex.
- Jacobvitz, D. B., & Bush, N. F. (1996). Reconstructions of family relationships: Parent-child alliances, personal distress, and self-esteem. *Developmental Psychology*, 32, 732-743.
- Jacobvitz, D. B., Hazen, N., Feldman, A., & Steffeck, L. (2003, April). The intergenerational transmission of family alliances. Paper presented at the biennial meeting of the Society for Research in Child Development, Tampa, FL, USA.
- Jacobvitz, D. B., Morgan, E., Kretchmar, M. D., & Morgan, Y. (1991). The transmission of mother-child boundary disturbances across three generations. *Development and Psychopathology*, 3, 513–527.
- Jacobvitz, D. B., & Sroufe, L. A. (1987). The early caregiver-child relationship and attention-deficit disorder with hyperactivity in kindergarten: A prospective study. *Child Development*, 58, 1488-1495.
- Jurkovic, G. J. (1998). Destructive parentification in families: Causes and consequences. In L. L'Abate (Ed.), *Family Psychopathology*. New York: Guilford.
- Kaufman, J., & Zigler, E. (1989). The intergenerational transmission of child abuse. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 129– 150). New York: Cambridge University Press.
- Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin*, 113, 164–180.

- Kerig, P. K. (2003). Boundary dissolution. In J. Ponzetti, R. Hamon, Y. Kellar-Guenther, P. K. Kerig, L. Scales, & J. White (Eds.), *International encyclopedia of marital and family relationships* (pp. 164–170). New York: Macmillan.
- Lyons-Ruth, K., Bronfman, E., & Atwood, G. (1999). A relational diathesis model of hostile-helpless states of mind. In J. Solomon & C. George (Eds.), Attachment disorganization. New York: Guilford.
- Macfie, J., Houts, R. M., McElwain, N. L., & Cox, M. J. (in press). The effect of father-toddler and mothertoddler role reversal on the development of behavior problems in kindergarten. *Social Development*.
- Macfie, J., Toth, S. L., Rogosch, F. A., Robinson, J., Emde, R. N., & Cicchetti, D. (1999). Effect of maltreatment on preschoolers' narrative representations of responses to relieve distress and of role reversal. *Developmental Psychology*, 35, 460–465.
- Main, M., & Goldwyn, R. (1984). Predicting rejection of her infant from mother's representation of her own experience: implications for the abused-abusing intergenerational cycle. *Child Abuse and Neglect*, 8, 203-217.
- Main, M., & Hesse, E. (1990). Parents' unresolved traumatic experiences are related to infant disorganized attachment status: Is frightened and/or frightening parental behavior the linking mechanism? In M. T. Greenber, D. Cicchetti, & E. M. Cummings (Eds.), Attachment in the preschool years: Theory, research, and intervention (pp. 161–182). Chicago: University of Chicago Press.
- Main, M., Kaplan, N., & Cassidy, J. C. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Monographs of the Society for Research in Child Development*, 50(Serial No. 209, Nos.1-2), 66-104.
- Minuchin, S. (1974). Families and family therapy. Cambridge: Harvard University Press.
- Morris, M. G., & Gould, R. W. (1963). Role-reversal: A necessary concept in dealing with battered child syndrome. American Journal of Orthopsychiatry, 33, 298–299.
- Rowa, K., Kerig, P. K., & Geller, J. (2001). The family and anorexia nervosa: Examining parent-child boundary problems. *European Eating Disorders Review*, 9, 97-114.
- Rutter, M. (1989). Intergenerational continuities and discontinuities in serious parenting difficulties. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 317–348). New York: Cambridge University Press.
- Rutter, M. (1998). Some research considerations on intergenerational continuities and discontinuities: Comment on the special section. *Developmental Psychology*, 34, 1269–1273.
- Sameroff, A. J. (1995). General systems theories and developmental psychopathology. In D. Cicchetti & D. J. Cohen (Eds.), Developmental Psychopathology, Volume 1: Theory and Methods. New York: Wiley & Sons.
- Sandler, J. (1976). Countertransference and role-responsiveness. International Review of Psychoanalysis, 3, 43-47.
- Simons, R. L., Whitbeck, L. B., Conger, R. D., & Wu, C. I. (1991). Intergenerational transmission of harsh parenting. *Developmental Psychology*, 27, 159-171.
- Sroufe, L. A. (1989). Relationships and relationship disturbances. In A. J. Sameroff & R. N. Emde (Eds.), Relationship disturbances in early childhood: A developmental approach (pp. 97–125). New York: Basic Books.
- Sroufe, L. A., & Fleeson, J. (1986). Attachment and the construction of relationships. In N. W. Hartup & Z. Rubin (Eds.), *Relationships and development* (pp. 273–308). Hillsdale, NJ: Lawrence Erlbaum.
- Sroufe, L. A., & Fleeson, J. (1988). The coherence of family relationships. In R. A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families: Mutual influences* (pp. 27–47). Oxford: Clarendon Press.
- Sroufe, L. A., Jacobvitz, D., Mangelsdorf, S., DeAngelo, E., & Ward, M. J. (1985). Generational boundary dissolution between mothers and their preschool children: A relationship systems approach. *Child Development*, 56, 317–325.
- Sroufe, L. A., & Rutter, M. (1984). The domain of developmental psychopathology. Child Development, 55, 17-29.
- Sroufe, L. A., & Ward, M. J. (1980). Seductive behavior of mothers of toddlers: Occurrence, correlates, and family origins. *Child Development*, 51, 1222–1229.
- Thelen, E., & Smith, L. B. (Eds.). (1998). Dynamic systems theories (5th ed.). New York: Wiley.
- Thompson, R. A. (1999). Early attachment and later development. In J. Cassidy & P. R. Shaw (Eds.), Handbook of attachment: Theory, research, and clinical implications (pp. 265–286). New York: Guilford.
- vanIjzendoorn, M. H., & Bakermans-Kranenburg, M. J. (1997). Intergenerational transmission of attachment: A move to the contextual level. In L. Atkinson & K. J. Zucker (Eds.), *Attachment and psychopathology*. New York: Guilford.
- West, M. L., & Keller, A. E. R. (1991). Parentification of the child: A case study of Bowlby's compulsive caregiving attachment pattern. *American Journal of Psychotherapy*, 45, 425–431.
- Winer, B. J., Brown, D. R., & Michels, K. M. (1991). Statistical principles in experimental design (3rd ed.). New York: McGraw-Hill.
- Zeanah, C. H., & Klitzke, M. (1991). Role reversal and the self-effacing solution: Observations from infant-parent psychotherapy. *Psychiatry: Interpersonal and Biological Processes*, 54, 346–357.