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Democratic Parenting Beliefs and Observed Parental Sensitivity: Reciprocal Influences Between Coparents

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Abstract

Three hundred and sixty-five two-parent families from the NICHD Study of Early Child Care and Youth Development were rated by trained observers on their parenting behavior at six assessments ranging from six months after the child's birth to when the child was in fifth grade (M = 10.4 years old at fifth grade). Across assessments, parents reported on their parenting beliefs and mothers reported on the child's externalizing behavior problems. Parenting beliefs predicted change in parenting behavior, and to a lesser degree parenting behavior predicted change in parenting beliefs. Parenting behavior and parenting beliefs both showed reciprocal effects between coparents, after controlling for child externalizing behavior and parent education.

Keywords

Parenting style; childrearing practices; parenting; parenting skills; mimicry

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One of the most studied and empirically supported influences on child development is parenting. Developmentalists seek to understand the factors that affect parenting behaviors due to both theoretical and practical interest (Luster & Okagaki, 2005). Attitudes, priorities, and beliefs about childrearing (collectively called parenting beliefs) are one potential cause of parenting behavior, but empirical support for this is limited. A second potential cause of parenting behavior is the parenting behavior of one's spouse or coparent, but empirical support for this is also limited. The current study addresses these gaps in the literature by focusing on parenting beliefs as well as the coparents' parenting behavior and beliefs as predictors of later parenting behavior.

Parenting beliefs

Parenting beliefs are widely viewed as important precursors to parenting behaviors (Sigel & McGillicuddy-De Lisi, 2002), yet empirical support is weak. Some studies show significant cross-sectional associations between parenting beliefs and parenting behavior (Conger, McCarty, Yang, Lahey, & Kropp, 1984; Hastings & Grusec, 1998), yet others do not (Bornstein, Cote, & Venuti, 2001; Smetana & Daddis, 2002). Variation across these studies in the specific parenting beliefs studied, the reporter of parenting behavior, and child age do not seem to explain the inconsistent pattern of results. Although the most frequently cited explanation for this association is that beliefs about parenting cause change in parenting

behavior, one alternative explanation is that parents align their beliefs about parenting with their parenting behavior to reduce cognitive dissonance (Festinger, 1962). It is also possible that the association between parenting beliefs and parenting behavior only occurs in some studies because it is spurious, caused by a third variable like child behavior.

Burchinal and colleagues reported that parenting beliefs predicted change in parenting behavior (Burchinal, Skinner, & Reznick, 2010), although child behavior was not included as a control. Although we are unaware of any studies wherein were tested the hypothesis that parenting behavior could change parenting beliefs, it is possible that the experience of parenting may alter a parents' beliefs or attitudes about their role over time, perhaps in an effort to bring consistency between the two (Bonds & Gondoli, 2007). We hypothesize reciprocal relations such that beliefs about parenting will predict changes over time in parenting behaviors, and that beliefs about parenting will also change over time in response to parenting behavior. We will also test whether the magnitude of these associations are equivalent. In the current study, we focus on parenting beliefs generally considered to be healthy, such as the belief that children should have their autonomy fostered in developmentally appropriate ways, and the belief that caregiving requires consideration of individual differences between children.

Parents influence each other

As partners in parenting, spouses or coparents may influence each others' beliefs about parenting, as well as each other's parenting behaviors. Spouses may become more similar in their parenting due to assortative mating (Agrawal et al., 2006), social learning (Bandura, 1977), and ongoing negotiation regarding parenting (Bonds & Gondoli, 2007). Despite this possibility of interparental influence, Belsky (1981, *p.*17) observed that "With regard to influences within the family, there exists a complete absence of information on the kinds of cross-parent learning that may go on between mothers and fathers." Little progress has been made in this area since Belsky's observation. Existing data on interparental influences is inconsistent. Belsky and Volling (1987) examined transactional processes between the parenting behaviors of new fathers and mothers and found only 2 relations out of 16 to be significant. However, Schofield et al. (2009) found that spouses consistently predict change in each other's warmth, harshness, and monitoring. The most obvious difference between these studies is that Belsky and Volling focused on infancy, whereas Schofield et al. focused on adolescence, during which the developmental landscape is characterized by negotiations about parenting and shifts in parenting practices (Steinberg & Silk, 2002). We extend this work by testing the hypothesis of reciprocity during the developmental period between infancy and adolescence. Specifically we test whether spouses reciprocally predict each other's sensitive parenting behavior over time.

The same mechanisms that are believed to cause reciprocal influences between co-parents in parenting behavior (assortative mating, social learning, co-parenting) could also cause reciprocal influences in parenting beliefs. Attitudes influence with whom we interact (e.g., Snyder & Kendzierski, 1982), and the selection into situations (and marriages) could be one way in which parenting beliefs influence parenting behavior. Furthermore, although confidence regarding a position or attitude can decay over time (Shiffrin, 1973), having a

spouse who shares one's parenting beliefs may facilitate retention of and confidence in those beliefs.

The literature on interparental influence in parenting beliefs is small, and we identified no longitudinal studies showing that spouses affect each other's parenting beliefs, although correlations from cross-sectional data support the possibility (Grigorenko & Sternberg, 2000; Simons, Beaman, Conger, & Chao, 1992). Accordingly, we predict that spouses will reciprocally influence each other's democratic parenting beliefs over time and we hypothesize that this will be the case even after controlling for other variables that might account for reciprocal associations between spouses like parents' education (Dubow, Boxer, & Huesmann, 2009) and child externalizing behavior (Stewart, Simons, Conger, & Scaramella, 2002).

Method

Participants

Participants in this study were part of a substudy at 6 of the 10 sites participating in the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development (SECCYD). This substudy included data from fathers who were not part of the data collected in the larger 10-site study. Families who participated in the study were recruited through hospital visits to mothers of newborn babies at 6 sites throughout the country (Arkansas, California, Kansas, Pittsburgh, North Carolina, and Wisconsin). Specific recruitment procedures for the larger study are detailed more thoroughly by the NICHD Early Child Care Research Network (ECCRN) (2005). After mothers and infants had been enrolled in the study, additional funding was obtained to recruit fathers to participate. There were 813 participating families at these 6 sites; of these 661 (81.3%) included fathers who were living with the mother and child at 6 months. All of these fathers were asked to participate, and 427 (64.6%) agreed (Costigan & Cox, 2001). The current analyses focus on the subsample of families in which observed measures of parenting were available for both mother and father ($N = 365$). At the 1 month assessment, mothers averaged 28.8 years of age ($SD = 5.5$), total household size was 3.9 ($SD = 1.0$), years of education was 14.8 (fathers) and 14.6 (mothers), annual family income was $49,910 ($SD = 35,100$) and income-to-needs ratio (the ratio of family or unrelated individual income to their appropriate poverty threshold) was 2.8 ($SD = 2.7$). Families were 89% European American, 7% African American, 4% Hispanic, and were similar to the larger SECCYD sample on most demographics (but see Costigan & Cox, 2001). For this sample, the amount of missing data averaged 19% (range: 0% to 35%). 77% of mothers and 79% of fathers in this study who participated in the first assessment (1 month after the child's birth) participated in the final assessment (when the child was in 5th grade). Attrition was unrelated to mother sensitivity ($r = -.05$), father parenting behavior ($r = .02$), mother parenting beliefs ($r = -.01$), father parenting beliefs (r = −.01), parent education ($r = -.07$), family income ($r = -.05$), child internalizing ($r = -.02$) or externalizing ($r = .00$).

Procedures and Variables

Detailed measures of family demographics, maternal behaviors, and children's characteristics and adjustment were obtained from multiple informants beginning when children were 1 month of age and continuing until they were 15 years old. Assessments used in the current study were conducted when children were 1, 6, 36, and 54 months old, in Kindergarten and grades 1, 3, 4, and 5.

Parent sensitivity—Parenting behaviors were assessed through observations of mothers and fathers when interacting independently with their children. Observations were obtained eight times between the child's birth and grade 5; two of those assessments (15 and 24 months) were excluded because of the small sample sizes of fathers included in those assessments. Videotapes of parent-child interactions involving play scenarios and problem-solving tasks were sent to a single site for central coding. In order to maintain an age-appropriate measure of the construct, parental sensitivity indicators changed somewhat over time, to reflect a developmentally appropriate measure of the construct (NICHD Early Child Care Research Network, 1997, 1998). At 6 and 36 months, sensitivity was the sum of three 4-point ratings: sensitivity to the child's non-distress signals (e.g., acknowledging the child's affect, contingent vocalizations by the mother, facilitating the manipulation of an object or child movement), positive regard (e.g., speaking in a warm tone of voice, hugging or other expressions of physical affection, an expressive face), and reflected intrusiveness (e.g., taking away objects or food while the child still appears interested, not allowing the child to handle toys he/she reaches for, insisting that the child do something in which he/she is not interested, not allowing the child to make choices).

At 54 months and in grades 1, 3 and 5, sensitivity was the sum of three 7-point ratings: supportive presence (e.g., pay attention to the child when the child talks, be engaged in the interaction, appear to enjoy interacting with the child), respect for autonomy (e.g., ask the child's opinion, negotiate rule with the child, acknowledge the child's perspective), and reflected hostility (e.g., point out child's weaknesses, put the child down, use a negative or sarcastic tone of voice). Inter-coder reliability was established by having two coders assess approximately 20% of the tapes, randomly drawn from each assessment period ($r_{ICC} > .70$). Confirmatory factor analyses supported a single factor solution at each timepoint, with good fit and standardized loadings above .40. Additional details regarding coding procedures, training and reliabilities are available in NICHD ECCRN (2005). To account for imperfect reliability of the scale scores, we created single-indicator latent variables to represent the constructs with each latent variable being measured by its corresponding scale score and the residual variance of the scale score fixed to [(1-scale reliability) * scale variance] (Hayduk, 1987; Hayduk & Littvay, 2012).

Democratic parenting beliefs—Mothers and fathers reported separately on their beliefs about parenting three times between the child's birth and grade six, using the Modernity scale (Schaefer & Edgerton, 1985). The 30 items on this sale provide an estimate of how progressive (democratic, child-centered) versus traditional (authoritarian, strict, adult-centered) the parent's attitudes are toward child rearing and discipline. Sample items include “parents should teach their children that they should be doing something useful at all times”

(reflected) “parents should go along with the game when their child is pretending something” and “children have a right to their own point of view and should be allowed to express it.” Responses ranged from 1=strongly disagree to 5=strongly agree. Consistent with prior work using this scale (Dowsett, Huston, Imes, & Gennetian, 2008), we combined the items into a single index, which had composite reliabilities above .80 across all timepoints for both parents. We modeled single-indicator latent variables from these summary scales by setting the residual variances to [$\sigma^*(1-\alpha)$].

Child externalizing behavior problems—Mothers completed age-appropriate versions of the Child Behavior Checklist (CBCL; Achenbach 1991) when children were 24 months, 36 months, 54 months, in Kindergarten, and in grades 1, 3, and 4. The T score standardization was used in the current analyses.

Parent education—Mothers and fathers years of education from the first assessment were averaged into a single variable.

Results

Using full information maximum likelihood estimation (Muthén & Muthén, 2012) we tested a series of nested models, and selected the most appropriate on statistical (Hu & Bentler, 1998) and conceptual grounds. The first model restricted the pattern of regression weights between the 18 latent factors (3 measures each of parenting beliefs and 6 assessments of parenting behavior across timepoints for mothers and fathers) and 8 covariates (e.g., parent average education and child externalizing at 7 timepoints) consistent with our hypotheses. We modeled relative/rank-order change in parent sensitivity and democratic beliefs, because most attitudes show relative change instead of absolute change (Coggins, Stimson, Atkinson, & Baumgartner, 2012), and because the measures of parent sensitivity changed slightly at the 54 month assessment. Externalizing was also modeled as a simplex autoregressive process. Parent sensitivity and democratic beliefs were regressed onto the prior measure of externalizing. This model showed a reasonable fit of $\chi^2 = 334.46$, $df = 196$, RMSEA = .044 [90%CI: .036-.052], CFI = .912, TLI = .905, SRMR = .069 and the ratio of sample size to indicators exceeded the rule of 10 suggested by Nunnally (1967). The correlations from this model are available in Table 1, and the factor loadings are presented in Table 2.

The next model invoked invariance constraints on the regression weights of parallel paths across time. For example, the regression weight of the path from mother parenting at 6 months to mother parenting at 36 months was constrained to be equal to the regression weight associated with the path from mother parenting at 36 months to mother parenting at 54 months. These constraints did not significantly worsen model fit, $\Delta\chi^2 = 23.78$, $\Delta df = 19$, $p = .20$, showing that the hypothesized associations did not vary across the spans of development covered by this data. Next we invoked invariance constraints on the regression weights of parallel paths across parents. These constraints did not significantly worsen model fit, $\Delta\chi^2 = 3.59$, $\Delta df = 11$, $p = .98$, showing that the hypothesized effects did not vary in magnitude across mothers and fathers. This model was selected as the final and most parsimonious representation of our findings, $\chi^2 = 361.83$, $df = 226$, RMSEA = .041 [90%CI: .032-.048], CFI = .955, TLI = .948, SRMR = .071.

Figure 1 contains the paths and standardized coefficients associated with this final model, with within-time correlations and covariates of parental education and child externalizing not shown for the sake of clarity. Consistent with the hypothesis that beliefs about parenting would predict changes in observed parenting behavior, the paths from parenting beliefs to parenting behavior were significant and ranged in magnitude from .14 to .42. Consistent with the hypothesis that observed parenting behavior would predict changes in parenting beliefs, the paths from parenting behavior to parenting beliefs were significant and ranged in magnitude from .06 to .08. The paths from beliefs to behavior were significantly larger in magnitude than the paths from behavior to beliefs, $\Delta\chi^2 = 8.55$, $\Delta df = 1$, $p = .0034$. Spouses predicted each others' observed parenting behaviors (βs ranged from .06 to .13). The reciprocal paths between mother and father parenting beliefs are not shown in the figure, but were all significant (βs ranged from .06 to .07). With regard to the covariates, child externalizing problems significantly predicted less mother sensitivity at three of the five timepoints (βs ranged from .00 to −.19) and less father sensitivity at two of the five timepoints (βs ranged from .00 to −.12). Although not predicted, secondary analyses showed mother parenting behavior predicted change in father's parenting beliefs (βs ranged from .14 to .17).

Discussion

Among these families, democratic parenting beliefs predicted change over time in sensitive parenting behavior. This supports the findings of Burchinal et al. (2010) and provides evidence consistent with an effect of parenting beliefs on parenting behavior. Replication in other samples in needed, given the limited number of studies testing for such longitudinal associations. Sensitive parenting behavior also predicted change over time in democratic parenting beliefs. One interpretation is that humans value consistency between their beliefs and their behavior (Festinger, 1962) and to create consistency, parents may shift their beliefs about parenting to match their behaviors. Alternatively, it may be the case that over time parents learn by experience what behavior works and consequently shift their beliefs about parenting. Additional research is needed to identify which parents are the most likely to shift their beliefs about parenting (including democratic beliefs) to align with their parenting behaviors (including sensitivity). This finding also illustrates the importance of longitudinal data to the study of parenting beliefs. Despite their high stability over time, parenting beliefs are not static and merit study as a developmental process.

Sensitive parenting behavior and democratic parenting beliefs both showed reciprocal associations between spouses over time. Although the individual effects were small in magnitude, compounded over time they would represent a large effect. These reciprocal associations highlight the benefit of considering both parents simultaneously when studying parental sensitivity. Additional work is needed to identify factors that increase or decrease the magnitude of these reciprocal associations.

This study used a nonexperimental design, and these results do not support strong causal inference. Other factors may have caused the observed similarity between parents. Although the NICHD Study of Early Child Care and Youth Development sample was selected to represent a wide range of families, observed parenting for both parents was available for

only a subsample of the larger study. Finally, other measure of observed parenting behavior or parenting beliefs may provide a different pattern of results than those presented in this study.

Developmental implications include that over time, the effect co-parents have on each other's parenting behavior can be substantial. In terms of practical implications, some participants will mention after an intervention that they did not benefit as much as they could have, due to the behavior of their spouse (Pruett, Insabella, & Gustafson, 2005). The current study offers support for the possibility of a converse effect; namely, in many families improving the practices of one parent may lead to a positive carryover effect for their spouse. Intervention or prevention programs focused on parenting should target both parents in two-parent families, and continue to address the beliefs parents have about their role as parents, as well as how they carry out that role. In terms of policy implications, young people seek out romantic partners based on shared interests, physical attractiveness, and how fun they are, not based on what kind of parent they would become. It may be helpful to increase awareness among young people of the ability of co-parents to so consistently influence each other's parenting.

References

Achenbach, TM. Manual for the Child Behavior Checklist/4-18 and 1991 Profile. University of Vermont, Department of Psychiatry; Burlington, VT: 1991.

Agrawal A, Heath AC, Grant JD, Pergadia ML, Statham DJ, Bucholz KK, Martin NG, Madden PA. Assortative mating for cigarette smoking and for alcohol consumption in Australian twins and their spouses. Behavior Genetics. 2006; 36:553–556. [PubMed: 16710775]

Bandura, A. Social learning theory. Prentice-Hall; Oxford, England: 1977.

Belsky J. Early human experience: A family perspective. Developmental Psychology. 1981; 17:3–17.

Belsky, J.; Volling, B,L. Mothering, fathering, and marital interaction in the family triad during infancy.. In: Berman, PW.; Pedersen, FA., editors. Men's transitions to parenthood:Longitudinal studies of early family experience. Lawrence Erlbaum; Hillsdale, NJ: 1987. p. 37-63.

Bonds DD, Gondoli DM. Examining the process by which marital adjustment affects maternal warmth: The role of coparenting support as a mediator. Journal of Family Psychology. 2007; 21:288–296. [PubMed: 17605551]

Bornstein MH, Cote LR, Venuti P. Parenting beliefs and behaviors in northern and southern groups of Italian mothers of young infants. Journal of Family Psychology. 2001; 15:663–675. [PubMed: 11770473]

Burchinal M, Skinner D, Reznick JS. European American and African American mothers' beliefs about parenting and disciplining infants: A mixed-method analysis. Parenting: Science and Practice. 2010; 10:79–96.

Coggins, KE.; Stimson, JA.; Atkinson, ML.; Baumgartner, FR. Absolute and relative opinion change.. Paper presented at the Annual Meeting of the Comparative Agendas Project; Reims, France. June 14-16; 2012.

Conger RD, McCarty JA, Yang RK, Lahey BB, Kropp JP. Perception of child, child-rearing values, and emotional distress as mediating links between environmental stressors and observed maternal behavior. Child Development. 1984; 55:2234–2247. [PubMed: 6525894]

Costigan CL, Cox MJ. Fathers' participation in family research: is there a self-selection bias? Journal of Family Psychology. 2001; 15:706–20. [PubMed: 11770476]

Dowsett CJ, Huston AC, Imes AE, Gennetian L. Structural and process features in three types of child care for children from high and low income families. Early Childhood Research Quarterly. 2008; 23:69–93. [PubMed: 19609366]

Dubow EF, Boxer P, Huesmann LR. Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. Merrill-Palmer Quarterly. 2009; 55:224–249. [PubMed: 20390050]

Festinger L. Cognitive dissonance. Scientific American. 1962; 207:93–107. [PubMed: 13892642]

Grigorenko EL, Sternberg RJ. Elucidating the etiology and nature of beliefs about parenting styles. Developmental Science. 2000; 3:93–112.

Hastings PD, Grusec JE. Parenting goals as organizers of responses to parent–child disagreement. Developmental Psychology. 1998; 34:465–479. [PubMed: 9597357]

Hayduk, LA. Structural equation modeling with LISREL: Essentials and advances. Johns Hopkins University Press; Baltimore, MD, USA: 1987.

Hayduk LA, Littvay L. Should researchers use single indicators, best indicators, or multiple indicators in structural equation models? BMC Medical Research Methodology. 2012; 12:159. [PubMed: 23088287]

Hu L, Bentler PM. Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. Psychological Methods. 1998; 3:424–453.

Luster, T.; Okagaki, L., editors. Parenting, An Ecological Perspective. Lawrence Erlbaum Associates; Mahwah: NJ: 2005.

Muthen, LK.; Muthen, BO. Mplus User's Guide. 6th ed.. Muthén & Muthén; Los Angeles, CA: 2012.

NICHD Early Child Care Research Network. Child care and child development: Results from the NICHD Study of Early Child Care and Youth Development. Guilford; New York: 2005.

Nunnally, JC. Psychometric theory. McGraw-Hill; New York: 1967.

Pruett MK, Insabella GM, Gustafson K. The collaborative divorce project: A court-based intervention for separating parents with young children. Family Court Review. 2005; 43:38–51.

Schaefer, ES.; Edgerton, M. Parent and child correlates of parental modernity.. In: Siegel, IE., editor. Parental belief systems. Erlbaum; Hillsdale, NJ: 1985. p. 287-318.

Schofield TJ, Conger RD, Martin MJ, Stockdale GD, Conger KJ, Widaman KF. Reciprocity in parenting of adolescents within the context of marital negativity. Developmental Psychology. 2009; 45:1708–1722. [PubMed: 19899926]

Shiffrin RM. Information persistence in short-term memory. Journal of Experimental Psychology. 1973; 100:39–49.

Sigel IE, McGillicuddy-DeLisi AV. Bornstein MH. Parent beliefs are cognitions: The dynamic belief systems model. Handbook of parenting: Vol. 3. Being and becoming a parent (2nd Edition). 2002:485–508.

Simons RL, Beaman J, Conger RD, Chao W. Gender differences in the intergenerational transmission of parenting beliefs. Journal of Marriage & the Family. 1992; 54:823–836.

Smetana JG, Daddis C. Domain-specific antecedents of parental psychological control and monitoring: The role of parenting beliefs and practices. Child Development. 2002; 73:563–580. [PubMed: 11949909]

Snyder M, Kendzierski D. Choosing social situations: Investigating the origins of correspondence between attitudes and behavior. Journal of Personality. 1982; 50:280–295.

Steinberg, L.; Silk, JS. Parenting adolescents.. In: Bornstein, MH., editor. Handbook of parenting: Vol. 1. Children and Parenting. 2nd ed.. Lawrence Erlbaum Associates; Mahwah: NJ: 2002. p. 103-134.

Stewart EA, Simons RL, Conger RD, Scaramella LV. Beyond the international relationship between delinquency and parenting practices: The contribution of legal sanctions. Journal of Research in Crime and Delinquency. 2002; 39:36–59.

Walling BR, Mills RSL, Freeman WS. Parenting cognitions associated with the use of psychological control. Journal of Child and Family Studies. 2007; 16:642–659.

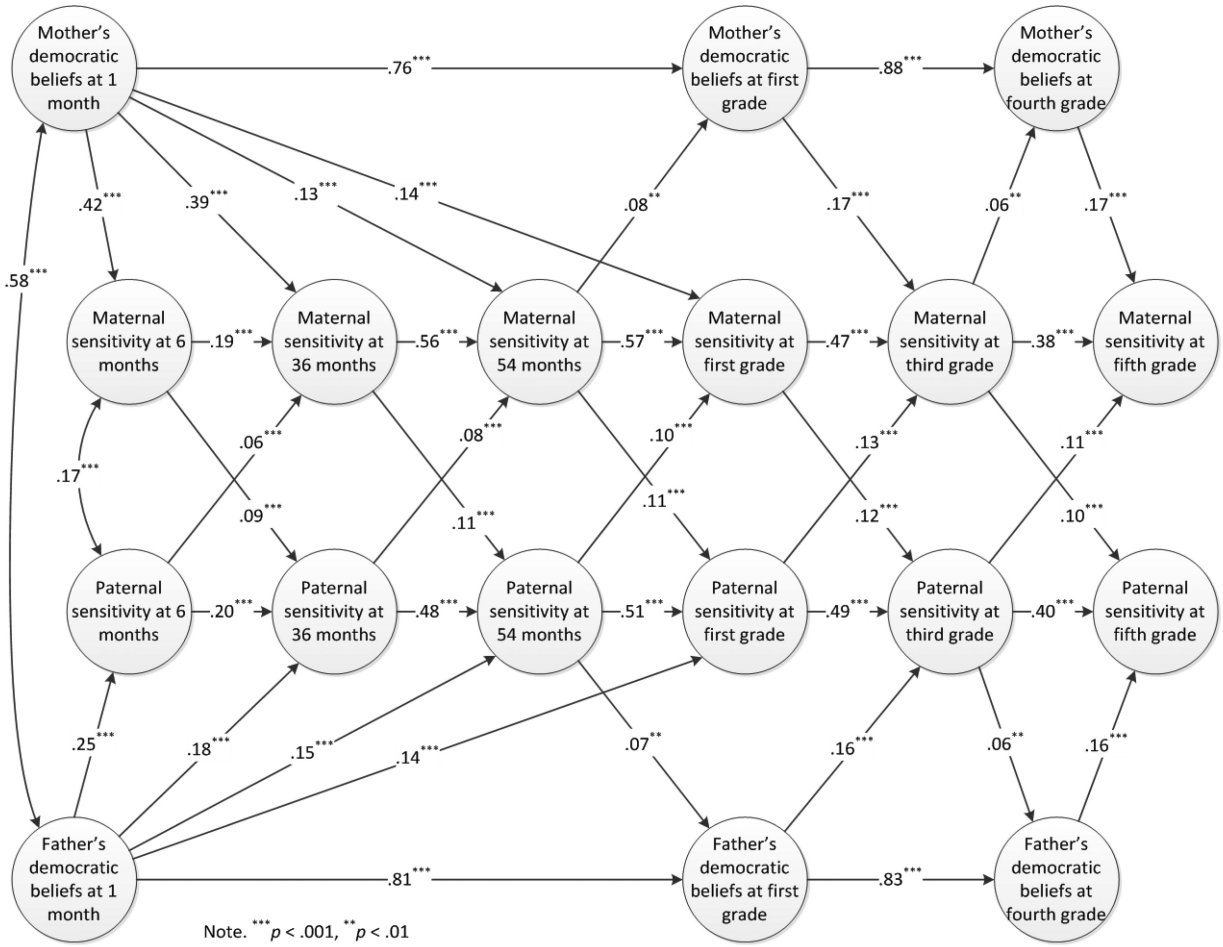

Figure 1.
Reciprocal Associations Over Time Between Spouses' Parenting and Parenting Beliefs

Table 1

Correlations Among Variables Used in Analyses

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1. Mother sensitivity @6 months	-																									
2. Mother sensitivity @36 months	.37*	-																								
3. Mother sensitivity @54 months	.33*	.61*	-																							
4. Mother sensitivity @grade 1	.31*	.56*	.61*	-																						
5. Mother sensitivity @grade 3	.32*	.48*	.40*	.60*	-																					
6. Mother sensitivity @grade 5	.38*	.53*	.40*	.49*	.55*	-																				
7. Father sensitivity @6 months	.21*	.26*	.28*	.08	.21*	.02	-																			
8. Father sensitivity @36 months	.21*	.24*	.20*	.22*	.22*	.27*	.14	-																		
9. Father sensitivity @54 months	.05	.26*	.24*	.18*	.16*	.18*	.21*	.59*	-																	
10. Father sensitivity @grade 1	.33*	.36*	.37*	.38*	.31*	.41*	.22*	.53*	.56*	-																
11. Father sensitivity @grade 3	.19*	.28*	.20*	.17*	.30*	.32*	.14*	.40*	.44*	.60*	-															
12. Father sensitivity @grade 5	.00	.26*	.26*	.30*	.24*	.35*	.14	.38*	.41*	.41*	.46*	-														
13. Mother beliefs @1 month	.40*	.48*	.42*	.45*	.42*	.39*	.20*	.20*	.24*	.41*	.26*	.30*	-													
14. Mother beliefs @grade 1	.43*	.48*	.36*	.41*	.43*	.36*	.21*	.29*	.18*	.38*	.22*	.12	.83*	-												
15. Mother beliefs @grade 4	.34*	.53*	.34*	.44*	.49*	.37*	.10	.34*	.24*	.35*	.18*	.20*	.78*	.93*	-											
16. Father beliefs @1 month	.26*	.46*	.36*	.29*	.30*	.35*	.24*	.28*	.27*	.40*	.29*	.27*	.56*	.51*	.51*	-										
17. Father beliefs @grade 1	.24*	.45*	.42*	.38*	.37*	.37*	.20*	.48*	.33*	.51*	.33*	.36*	.55*	.56*	.54*	.86*	-									
18. Father beliefs @grade 4	.25*	.43*	.41*	.41*	.49*	.46*	.18*	.44*	.31*	.41*	.32*	.34*	.50*	.51*	.57*	.76*	.90*	-								
19. Child externalizing @24 months	−.06	−.28*	−.21*	−.16*	−.27*	−.18*	−.03	−.08	−.16*	−.18*	−.22*	−.12	−.19*	−.25*	−.24	−.20*	−.19*	−.22*	-							
20. Child externalizing @36 months	−.05	−.32*	−.20*	−.16*	−.31*	−.21*	−.04	−.02	−.15*	−.17*	−.28*	−.20*	−.22*	−.25*	−.26*	−.17*	−.15*	−.20*	.72*	-						
21. Child externalizing @54 months	−.05	−.27*	−.22*	−.12*	−.19*	−.20*	−.06	−.04	−.19*	−.12	−.27*	−.20*	−.19*	−.24*	−.26*	−.14*	−.13*	−.21*	.63*	.68*	-					
22. Child externalizing @Kindergarten	−.11	−.32*	−.28*	−.16*	−.30*	−.30*	−.05	−.07	−.21*	−.20*	−.24*	−.15*	−.30*	−.34*	−.34*	−.20*	−.13*	−.23*	.55*	.64*	.76*	-				

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
23. Child externalizing @grade 1	−.10	−.33*	−.26*	−.17*	−.25*	−.35*	−.03	−.08	−.19*	−.15*	−.24*	−.22*	−.26*	−.28*	−.28*	−.20*	−.17*	−.23*	.53*	.62*	.73*	.79*	-			
24. Child externalizing @grade 3	−.15*	−.31*	−.28*	−.26*	−.42*	−.40*	−.05	−.13	−.13	−.27*	−.34*	−.30*	−.30*	−.26*	−.28	−.16*	−.13*	−.24*	.48*	.57*	.61*	.67*	.75*	-		
25. Child externalizing @grade 4	−.20*	−.26*	−.24*	−.24*	−.06	−.20	−.02	−.07	−.03	.08	−.19	−.28*	−.25*	−.10	−.25*	−.31*	−.10	−.24	.24*	.27*	.34*	.73*	.46*	.82*	-	
26. Parent education	.34*	.41*	.36*	.36*	.35*	.30*	.21*	.22*	.17*	.24*	.18*	.23*	.52*	.41*	.37*	.49*	.38*	.39*	−.22*	−.29*	−.21*	−.24*	−.26*	−.26*	−.30*	-

Note.

*p < .05.

Table 2

Factor Loadings for Latent Variables Used in Analyses

Variable	Std. λ
1. Mother sensitivity at 6 months	.91
2. Mother sensitivity at 36 months	.91
3. Mother sensitivity at 54 months	.90
4. Mother sensitivity at grade 1	.87
5. Mother sensitivity at grade 3	.88
6. Mother sensitivity at grade 5	.90
7. Father sensitivity at 6 months	.90
8. Father sensitivity at 36 months	.89
9. Father sensitivity at 54 months	.90
10. Father sensitivity at grade 1	.90
11. Father sensitivity at grade 3	.87
12. Father sensitivity at grade 5	.90
13. Mother beliefs at 1 month	.93
14. Mother beliefs at grade 1	.94
15. Mother beliefs at grade 4	.93
16. Father beliefs at 1 month	.94
17. Father beliefs at grade 1	.94
18. Father beliefs at grade 4	.94