
**PARENTS' CONVERGENCE ON SHARING AND
MARITAL SATISFACTION, FATHER INVOLVEMENT,
AND PARENT-CHILD RELATIONSHIP AT THE
TRANSITION TO PARENTHOOD**

RUTH FELDMAN

Department of Psychology, Bar-Ilan University

ABSTRACT: This study examines determinants of father involvement, the parents' convergence on marital satisfaction, and mothers' and fathers' interactive behavior in dual-earner families at the transition to parenthood. Sixty dual-earner Israeli couples and their five-month-old firstborn child were interviewed and videotaped in infant-mother and infant-father interactions. Interactions were coded globally for 21 interactive behaviors and composited into measures of parent sensitivity and infant readiness to interact. Five determinants of each parent's involvement in house and childcare were assessed as predictors of parent-infant interactions: the sharing of household and childcare responsibilities, the amount of time each parent spends with the infant during the week and on weekends, and the range of childcare activities the parent typically performs. Marital convergence was indexed by the absolute difference score between mothers' and fathers' marital satisfaction. Father sensitivity was related to the sharing of household and childcare responsibilities, to the amount of time the father spends with the child on weekends (but not during the week), to the range of childcare activities father performs, and to marital convergence. Mother sensitivity was related only to the sharing of responsibilities between spouses. The range of the father's childcare activities predicted maternal interactive sensitivity. Infant readiness to interact with the father, but not with the mother, was related to the sharing of childcare responsibilities, to the range of father's childcare activities, and to marital convergence. Results further specify the differential associations between the marital and the parent-child relationship for mothers and fathers and point to the importance of the father's instrumental involvement in childcare to the development of fathering.

RESUMEN: Este estudio examina los determinantes de la participación del padre, el punto de convergencia de los padres en cuanto a una satisfacción marital, así como la conducta interactiva de la madre y del padre en familias con dos sueldos y que están en la transición hacia la paternidad/maternidad. Sesenta parejas israelitas de familias con dos sueldos, y sus infantes primogénitos de cinco meses fueron entrevistadas y grabadas en video en sesiones de interacción entre el infante y la madre, por una parte, y entre el infante y el padre, por la otra. Las interacciones fueron codificadas globalmente en veintiuna conductas interactivas, y compuestas después en medidas para determinar la sensibilidad de los padres y la buena disposición del infante hacia la interacción. Cinco situaciones determinantes del involucramiento de la madre y el padre en la casa y durante el momento de prestarle cuidado al niño fueron evaluadas como

Direct correspondence to: Ruth Feldman, Department of Psychology, Bar-Ilan University, Ramat-Gan, Israel 52900.
E-mail: feldman@mail.biu.ac.il.

posibles predicciones de las interacciones entre el niño y sus padres: el compartir las responsabilidades de la casa y de cuidado del niño, la cantidad de tiempo que tanto la madre como el padre pasan con el infante durante la semana y el fin de semana, así como la variedad de actividades que la madre o el padre típicamente lleva a cabo cuando cuida al niño. La sensibilidad del padre fue relacionada con el compartir las responsabilidades de la casa y del cuidado del niño, con la cantidad de tiempo que el padre pasa con el niño en los fines de semana (pero no durante la semana), con la variedad de actividades que el padre lleva a cabo durante el tiempo en que le presta cuidado al niño, y con el punto de convergencia marital. La sensibilidad de la madre fue relacionada solamente con el compartir de las responsabilidades entre los esposos. La variedad de las actividades que el padre llevaba a cabo durante los momentos en que cuidaba al niño predijo la sensibilidad interactiva de la madre. La buena disposición del infante a interactuar con el padre, pero no con la madre, fue relacionada con el compartir de las responsabilidades de cuidado del niño, con la variedad de las actividades llevadas a cabo por el padre cuando cuidaba al niño, con la variedad de las actividades llevadas a cabo por el padre cuando cuidaba al niño, y con el punto de convergencia marital. Los resultados posteriores especifican las asociaciones diferenciales entre la relación marital y la relación entre el hijo y sus padres, para las madres y los padres, y apunta a la importancia del esencial involucramiento del padre en el cuidado del niño en cuanto al desarrollo de la crianza por parte del padre.

RÉSUMÉ: Cette étude examine les déterminants de la participation du père, la convergence des parents sur la satisfaction conjugale, et le comportement interactif des mères et des pères dans des familles où les deux parents travaillent, à la transition vers le parentage. Soixante couples israéliens travaillant tous les deux et leur premier né de cinq mois ont été interviewés et filmés durant des interactions nourrisson-mère et nourrisson-père. Les interactions ont été codées globalement pour vingt-et-un comportements interactifs et configurées en mesure de sensibilité parentale et d'empressement du nourrisson à communiquer. Cinq déterminants de la participation de chaque parent à la vie familiale et aux responsabilités de soin de l'enfant ont été évalués en tant qu'indicateurs des interactions parent-nourrisson: le partage des responsabilités de soin de l'enfant et des responsabilités familiales de ménage, le temps passé par chaque parent avec le nourrisson durant la semaine et durant le week-end, et l'éventail des activités de soin de l'enfant que le parent pratique habituellement. La convergence conjugale était indexée par la différence absolue de score entre la satisfaction conjugale des mères et des pères. La sensibilité paternelle était liée au partage des responsabilités de soin de l'enfant et familiales, au temps que le père passe avec l'enfant le week-end (mais pas pendant la semaine), à l'éventail des activités de soin de l'enfant que le père pratique, et à la convergence entre les époux. L'éventail des activités de soin de l'enfant pratiquées par le père prédisait une sensibilité maternelle interactive. L'empressement de l'enfant à communiquer avec le père, mais pas avec la mère, était lié au partage des responsabilités de soin de l'enfant, à l'éventail des activités de soin de l'enfant pratiquées par le père et à la convergence conjugale. Les résultats précisent plus loin les associations différentielles entre la relation conjugale et la relation parent-enfant pour les mères et les pères, et indiquent l'importance de la participation instrumentale du père dans le soin de leur enfant pour ce qui concerne le développement du paternage.

ZUSAMMENFASSUNG: Diese Studie untersucht die Faktoren der väterlichen Beteiligung, der elterlichen Übereinstimmung bezüglich der ehelichen Zufriedenheit und mütterliches und väterliches Interaktionsverhalten in Familien, in denen beide Partner arbeiten, zum Zeitpunkt des Übergangs zur Elternschaft. 60 israelische Paare, bei denen beide Partner arbeiten, und deren fünf Monate altes Neugeborenes wurden interviewt und bei Mutter- und Vater-Kind Interaktion videografiert. Die Interaktionen wurden global für 21 interaktive Verhalten kodiert und zu Masseinheiten des elterlichen Einfühlungsvermögen und der Bereitschaft des Kindes zu interagieren zusammengefasst. Fünf Kategorien des Engagements jedes Elternteils in Haus und Kinderbetreuung wurden als Voraussageindikatoren der Eltern-Kind Interaktion untersucht: Das Teilen der Haushalts- und Kinderbetreuungsverantwortung, das Ausmaß an Zeit, das jeder Elternteil während der Woche und an Wochenenden mit dem Kind verbrachten und die Breite des Angebots von Kinderbetreuungsaktivitäten, die ein Elternteil typischerweise durchführt. Die Einfühlungsvermögen des Vaters stand in Beziehung zu dem Ausmaß an Beteiligung am Haushalt und der Kinderbetreuung, zum Ausmaß an Zeit, die der Vater am Wochenende mit dem Kind verbrachte (aber nicht derer während der Woche), zu der Breite des Angebots an Kinderbetreuungsaktivitäten, die der

Vater macht und zur ehelichen Übereinstimmung. Die mütterliche Einfühlungsvermögen stand nur zur Teilung des Haushalts zwischen den Partnern in Relation. Das Ausmaß an väterlichen Kinderbetreuungsaktivitäten, konnte das Ausmaß an mütterlicher Einfühlungsvermögen vorhersagen lassen. Die Bereitschaft des Kindes mit seinem Vater zu interagieren, aber nicht die mit der Mutter, stand in Zusammenhang mit der Teilung von Kinderbetreuungsverantwortung, der Breite der väterlichen Kinderbetreuungsaktivitäten und zur ehelichen Übereinstimmung. Unsere Ergebnisse spezifizieren darüber hinaus die unterschiedlichen Verbindungen zwischen der ehelichen und der Eltern-Kind Beziehung für Mütter und Väter und weisen auf die Wichtigkeit der praktischen Einbeziehung des Vaters in die Kinderbetreuung bei der Entwicklung des Vaterlserns hin.

抄録：この研究は、共稼ぎ家族での親になることへの移行期における、父親の関与、結婚生活の満足度についての両親の収束度 *convergence*、および、母親と父親の相互交流行動の決定因を検証する。60組のイスラエルの共稼ぎ夫婦と彼らの5ヶ月になる第1子が、面接を受け、乳児と母親、乳児と父親の相互交流がビデオに撮られた。相互交流は全体的に21の相互交流行動にコード化され、両親の感受性と乳児の相互交流への準備性の尺度に合成された。親-乳幼児相互交流の予測因子として、それぞれの親の家事と育児への関わり方の5つの決定因が評価された。それらは家事と育児の責任分担、平日および週末にそれぞれの親が乳児と過ごす時間の長さ、および親が典型的に行う育児活動の範囲である。夫婦の収束度は、母親と父親の結婚生活満足度スコアの絶対値の差によって示された。父親の感受性は、家事と育児の責任分担、週末に（しかし平日ではなく）父親が子どもと過ごす時間の長さ、父親が行う育児活動の範囲、および夫婦の収束度と、関係していた。母親の感受性は、配偶者間の責任分担とだけ、関係していた。父親の育児活動の範囲は、母親の相互交流の感受性を予測した。乳児の父親との（しかし母親とではなく）相互交流の準備性は、育児の責任分担、父親の育児活動の範囲、および夫婦の収束度と関係していた。結果は、父親と母親にとって、夫婦関係と親子関係の関わり方の違いをさらに明らかにし、父親性 *fathering* の発達において父親が育児に道具を使って関与する *instrumental involvement* ことの重要性を指摘する。

* * *

At the transition to parenthood, the family system—which previously consisted of a single relational system—expands to include four different systems: the husband–wife, mother–child, father–child, and the higher-order family system. These systems are reciprocally related and mutually influencing; each dyadic subsystem is sensitive to developments in the other two, and their combined interactions shape a higher-order family process (Minuchin, 1985). In the past two decades, research on the transition to parenthood examined developments within and between the family subsystems. Studies demonstrated that the marital quality declines, the emerging mother–child and father–child interactive systems are associated with the marital quality, and father involvement in the daily routines of childcare is an important buffer against maternal stress and marital decline at the transition to parenthood (Belsky & Pensky, 1988; Cowan & Cowan, 1992; Cox, Owen, Lewis, & Henderson, 1989; Feldman, Nash, & Aschenbrenner, 1983; Heinicke, 1984; Levy-Shiff, 1994). Father involvement appears to serve an important function at this critical period in the evolution of families, contributing to the marital, father–child, and mother–child relational systems (Belsky, Rovine, & Fish, 1989; Levy-Shiff & Israelashvili, 1988; Ruble, Hackel, Fleming, & Stangor, 1988). Father involvement, however, is a broad construct used to index a variety of quantitative and qualitative measures, such as the specific activities the father performs, the degree of responsibility the father has for childcare, the amount of time the father spends with the child, or the father’s emotional involvement during father–child interaction (Barnett & Baruch, 1987; Parke, 1996). The associations be-

tween the determinants of father involvement, the marital, and the father–child and mother–child relational systems at the transition to parenthood require further research.

This study examines several aspects of father involvement in childcare, the couple's view on sharing the household and childcare responsibilities, the parents' convergence on marital satisfaction, and the developing mother–infant and father–infant relationship in a sample of dual-earner Israeli parents and their firstborn child. Conflicts related to the sharing of home and childcare responsibilities are exacerbated when both parents need to balance the conflicting needs of work and family, and different patterns of father involvement have shown to evolve in dual- and single-earner families (Crouter, Perry-Jenkins, Huston, & McHale, 1987; Grych & Clark, 1999). Because the number of women who resume employment when their infants are young is rapidly increasing, addressing the special dynamics of the dual-earner family, particularly at the transition to parenthood, is important (Gottfried & Gottfried, 1994).

Assessing the links between the marital and parent–child relational systems, researchers of the transition to parenthood observed that the marital relationship has stronger implications for fathering than for mothering. Belsky and colleagues (1991) found that fathers in deteriorating marriages were more negative during father–child interactions, but such associations were not found for mother–child interaction. The researchers proposed that fathers' investment in the family ranks along the continuum of “involved” to “withdrawn,” and there is minimal differentiation between the husband–wife and father–child relational systems. Involved fathers maintain more satisfying marriages, participate in house and child care, and develop more sensitive relationships with their infants as compared to withdrawn fathers, who distance themselves from wife, home, and child. Parke and Beitel (1988), summing up the findings on the closer associations between marriage and fathering, suggest that the father–child relationship is a system with less internal regulation and thus depends on the marital system for external buffering. Whereas the mother–child relationship is biologically based, the father–child attachment may be less evolutionary programmed and requires a supportive marriage and actual involvement to emerge. This view is consistent with Insel's (1997) neurobiological model of social bonding. Studying two related species of monogamous and polygamous voles, Insel found paternal care for offspring only in the monogamous species, suggesting that male–female exclusivity moderated the process of paternal bonding. Such findings underscore the importance of the father's childcare activities as one mechanism underlying the development of father–child attachment and point to the husband–wife system as a moderator of fathering at a deep biological level.

For mothers, the link between the marital and the parent–child relational systems may be moderated by different mechanisms. Women often experience a sharper decline in marital satisfaction at the transition to parenthood (Belsky & Pensky, 1988), which was attributed to violated expectations regarding the husband's participation in the daily routines of household and childcare (Belsky, 1985; Ruble et al., 1988). The birth of the first child is followed by a shift toward traditional sex roles, with women assuming a disproportionate share of the house and childcare work even among couples who shared responsibilities prior to childbirth (Belsky, Lang, & Huston, 1986). This shift often causes maternal resentment and colors the mother's perception of the marriage. For employed mothers, who share the family's financial burden, father involvement is doubly important, and their resentment toward unequal division of labor may be especially high. Pleck (1985) showed that the mother's employment out of the home did not increase meaningfully the father's level of involvement; it only changed the relative allocation of his time, a situation likely to affect maternal stress and the marital quality. Similarly, Lamb and colleagues (1987) showed that maternal employment increased the father's engagement and availability to the infant but had little impact on the degree of father respon-

sibility for childcare. It is thus possible that the mechanisms linking the marital and the mother–child relational systems, particularly for first-time working mothers, are emotional spillovers of maternal resentment from husband to infant. In addition to reducing maternal resentment, the father’s sharing of the responsibilities of childcare is a valuable source of environmental support, which frees mothers to invest their physical and mental energies in the process of mothering.

For modern couples living in a nuclear-family arrangement, the marital relationship provides the most important, and often single source of social support (Belsky, 1984)—hence the significance of father involvement to the development of sensitive mothering. Adequate social support is essential for all mothers, is particularly meaningful for first-time mothers, and serves a crucial role in the lives of working women (Belsky et al., 1989; Gottfried & Gottfried, 1994). Social support has been associated with diminished maternal depression, better marital relationship, and higher maternal sensitivity (Crockenberg & McClusky, 1986; Cutrona, 1984; Levy-Shiff, 1994). Furthermore, increase in father involvement across the first year has been shown to predict positive change in maternal sensitivity, pointing to the dynamic relations between father involvement and the mother–child system (Feldman, Greenbaum, Mayes, & Erlich, 1997). Thus, although the marital relationship may be less-tightly coupled with the mother–child relationship, the couple’s sharing the responsibilities of household and childcare may be an important contributor to the development of sensitive mothering.

Associations between fathers’ marital satisfaction and father–child relationship have been reported in several studies (for review see Erel & Burman, 1995). In this study, the parents’ convergence on marital satisfaction is used as an index of marital quality. This measure describes the degree of convergence between the husband’s and the wife’s satisfaction with the relationship. The transition to parenthood often is accompanied by a growing divergence between parents on aspects of their experience and functioning, and this discrepancy is related negatively to marital satisfaction and parenting (Belsky, Crinic, & Gable, 1995; Cowan & Cowan, 1992). Measures of parental convergence and spousal differences, therefore, may be important indicators for the intactness of the parenting system and the development of the coparenting process (Fincham, 1998).

Measures of parental convergence on childrearing attitudes and practices or on patterns of observed behaviors have been associated with marital accord and better child outcomes. McHale (1995) showed that discrepancy between mothers’ and fathers’ warmth and involvement during play with their infants is associated with marital distress, particularly among parents of girls. Gjerde (1988) found that parental convergence on childrearing values predicted more optimal mother–child interactions in terms of lower intrusiveness and power assertion. Converging parental views also have been associated with affectionate parent–child interaction (Russell & Russell, 1994), better marital quality, and children’s ego resiliency and control (Lamb, Hwang, & Broberg, 1989). In early infancy, the child’s ability to comprehend inconsistencies in the immediate environment is limited, and thus a unitary parental approach is an important attribute of the microsystem (Van Ijendoorn, Tavecchio, Stams, Verhoeven, & Reiling, 1998). The parents’ convergence on marital satisfaction may have an additional value to the general quality of consistency in the microsystem. Parents can adhere to different philosophies and learn to accept each other’s view, but a marked discrepancy between the husband’s and the wife’s marital satisfaction suggests that there is little dialogue or mutual influence between spouses, that one partner is unaware of the other partner’s distress, or—in extreme cases—that the satisfaction of one spouse comes at the account of overlooking the other’s needs. Parents’ convergence on the marital quality may point to an open relational system that is mutually negotiated and appraised.

This study examines components of parental involvement in childcare and the parents' marital convergence as predictors of mother-child and father-child relationship at the transition to parenthood. Several aspects of parental participation in childcare were examined: the degree of sharing household and childcare responsibilities between parents, the amount of time the parent spends with the child during the week and on weekends, and the range of childcare activities the parent carries out alone (e.g., bathing, feeding, diapering). In assessing the sharing of household and childcare responsibility, both parents' views were considered. Fathers' perception of their involvement in house and childcare often differs from their actual assistance (LaRossa, 1988), and studies of Israeli men have shown discrepancies between their expressed egalitarian views and limited participation in "feminine" tasks (Seginer, 1988). Thus, it is important to assess both parents' perspectives on measures of sharing.

The parents' convergence on marital satisfaction was used as an index of the marital quality and was examined as a predictor of maternal and paternal sensitivity during interaction with the infant and of the infant's readiness to interact with mother and father. Based on the importance of father involvement in childcare to the development of fathering (Barnett & Baruch, 1987), the four components of parental instrumental involvement were expected to show closer associations with father-child as compared to mother-child interactions. Similarly, in light of the literature pointing to the moderating role of marriage on fathering (Belsky et al., 1991; Parke & Beitel, 1988), the father-child relationship was expected to be associated with parental convergence on marital satisfaction. On the other hand, in accordance with studies showing associations between social support and maternal sensitivity (Crockenberg & McClusky, 1986), the sharing of household and childcare responsibilities was expected to predict maternal, as well as paternal, sensitivity during parent-child interaction.

METHOD

Participants

Participants were 60 Israeli couples and their firstborn child, who were part of a larger study on the transition to parenthood in dual-earner families. Parents were recruited through Well-Baby stations in Jerusalem and Tel-Aviv. Mothers were between 21 and 35 years of age ($M = 26.7$, $SD = 3.4$) and fathers were between 22 and 37 years of age ($M = 28.2$, $SD = 3.6$). All parents had completed high school and most (93%) had some or a full college education. Parents worked in skilled or semiskilled professions and were considered middle class by Israeli standards (Harlap, Davis, Grower, & Prywes, 1977).

Infants were approximately five months old (Range = 14–22 weeks, $M = 19.2$ weeks, $SD = 3.11$) at the time of the visit. Infants were full term (>36 weeks gestation), weighed at least 2700 g, and had no serious complication during pregnancy or after birth. The Well-Baby clinic records were screened for serious parental psychopathology, parental medical conditions, and infant health complications. The sample consisted of 29 boys and 31 girls.

Procedure

Parents were introduced to the study by the head nurse in the Well-Baby station of their neighborhood. Those willing to participate were contacted by phone, and a visit was scheduled for a time of day when both parents were home and the infant was expected to be fed and awake. Visits lasted approximately two hours and included an interview with each parent, a

battery of self-report questionnaires (identical for mothers and fathers), and three videotaped interactions; mother–child interaction, father–child interaction (counterbalanced), and a triadic family interaction. In this report, data from the two parent–child interaction sessions are used.

Measures

Sharing household and childcare responsibilities. Parents received a list of household chores (e.g., dishes, laundry, shopping) and a list of childcare activities (e.g., bathing, diapering, feeding) and were asked to assess the level of sharing in each domain on a scale of 1 to 5, ranging from no sharing (1) to equal sharing (5). The scores for the mothers and the fathers were related, $r = .45, .49$ for housekeeping and childcare responsibilities respectively, $ps < .001$. In order to assess the parents' converged view on sharing, the averaged couple score was used.

Time spent with the infant. Each parent was asked to estimate the amount of time (in hours) he/she spends with the child during the week and on weekends.

Range of parenting activities. Each parent rated whether or not he/she typically (at least once a week) performs the following childcare activities alone (not in a triadic context): babysitting, diapering, feeding, playing, bathing, and taking for trips/walks. The final score was the sum of all activities the parent reported.

Parents' convergence on marital satisfaction. Marital satisfaction was assessed with the Marital Adjustment Test (MAT; Locke & Wallace, 1959). The MAT consists of 15 items that are summed to create a global marital satisfaction score. The MAT is one of the most widely used instruments in the study of marital relationships, with well-demonstrated reliability and validity (Gottman, Markman, & Notarius, 1977). The absolute-difference score was used to examine parental convergence on marital satisfaction.

Coding

Mother–infant and father–infant interactions were coded for twenty-one interactive measures using a coding system developed by Feldman (Feldman, et al., 1997; Mayes et al., 1997). Codes were global and were rated on a 5-point scale from low to high. The coding system has shown sensitivity to infant age and play context, as well as to interactions at risk. Two global composites are used in this study: Parent Sensitivity and Infant Readiness to Interact. Composites were derived theoretically and consistent with our previous research. The factors, the specific measures combined to form each factor, and the internal consistency for the current sample are listed below.

Parent Sensitivity (alpha = .90 mothers, .88 fathers)

Parent Acknowledging of infant interactive bids; parent positive Affect; parent Adaptation to infant signal; parent warm and appropriate Vocalization; parent Resourcefulness; and Fluency of interaction.

Infant Readiness to Interact (alpha = .86 mothers, .89 fathers)

Infant maintains Alert state; infant focused Gaze; Infant Fussy (negative); infant Fatigue (negative); infant positive Affect; and infant positive Vocalization.

Two graduate students, after viewing the entire session, scored each measure. Coders were trained to reliability of 90% within a one-point window. Interrater reliability was computed periodically on a random sample of 15 mother–infant and 15 father–infant interactions. Reliability percentages using a one-scale point window averaged 93% for mother–infant interactions (range = 89–100%), kappa = .84, and 92% for father infant interactions (range = 87–99%), kappa = .82.

RESULTS

Descriptive statistics are presented in Table 1. Marital satisfaction of the mothers and the fathers and sharing scores reported in Table 1 represent each parent's individual score, not the average or difference score that are used in subsequent analyses.

As seen, mean level differences were not found between mothers' and fathers' perceptions of the sharing of household and childcare responsibilities or between the interactive measures Parent Sensitivity and Infant Readiness to Interact. Differences between parents also were not found for marital satisfaction. Marital convergence score, the absolute difference score between spouses, was $M = 2.78$, $SD = 10.17$ (range = -23.00 – $+21.00$), and this score was used in subsequent analyses. On the other hand, marked differences were found between the amount of time mothers and fathers spent with the child during the week and on weekend, suggesting that, even among dual-earners couples who share childcare responsibilities, mothers still carry most of the childcare burden. Similarly, significant differences emerged for the range of childcare activities: mothers typically perform a wider range of childcare activities than fathers do.

In Table 2, bivariate correlations between the study variables are presented for mothers and fathers.

The data for fathers presented in Table 2 indicate that Father Sensitivity is related to the sharing of household and childcare responsibilities, to the range of childcare activities the father performs, and to parental convergence on marital satisfaction. Infant Readiness to Interact with the father was related to the parents' sharing of childcare responsibilities and to the range of childcare activities the father performs. For mothers, Mother Sensitivity was related to Infant Readiness to Interact and to the sharing of household and childcare responsibilities. Range of childcare activities was related to the amount of time the mother spent with the infant during the week and on weekend.

TABLE 1. *Descriptive Statistics*

	<i>Mothers</i>		<i>Fathers</i>		(1119)
	Mean	SD	Mean	SD	
Sharing childcare responsibilities	3.63	1.00	3.15	1.08	NS
Sharing household responsibilities	3.36	1.27	2.50	1.13	NS
Time with infant during week (h/day)	7.89	4.70	3.31	2.07	63.32***
Time with infant on weekend	14.30	5.60	11.20	4.50	18.42***
Range of childcare activities	5.43	1.22	4.21	1.08	7.24**
Marital satisfaction	114.95	11.47	117.60	11.62	NS
Parent sensitivity	4.25	.65	4.08	.84	NS
Infant readiness to interact	3.52	.25	3.53	.32	NS

** $p < .01$; *** $p < .001$.

TABLE 2. *Intercorrelation among Study Variables*

	1	2	3	4	5	6	7	8
1. Parent sensitivity	_____	.22	.37**	.26*	.07	.23	.29*	-.26*
2. Infant readiness to interact	.30*	_____	.27*	.12	.11	.13	.28*	-.15
3. Share childcare	.33**	.25*	_____	.30*	.09	.07	.18	-.20
4. Share household	.32*	.23	.39**	_____	-.12	.04	.12	-.15
5. Time/week	.00	.04	.05	.12	_____	.16	-.06	-.12
6. Time/weekend	.20	.06	.06	.04	.17	_____	.08	-.18
7. Range of childcare activities	.08	.01	-.22	-.11	.30*	.31*	_____	.04
8. Marital satisfaction convergence	-.14	.05	-.14	-.15	.01	.03	-.01	_____

Note. Correlations above the line are for fathers, below for mothers.

* $p < .05$; ** $p < .01$; *** $p < .001$.

TABLE 3. *Predicting Mother–Infant Interaction*

Criterion	Mother Sensitivity				Infant Readiness to Interact				DF Predictors
	Beta	MR	R-2 Change	F Change	Beta	MR	R-2 Change	F Change	
Sharing childcare	.27*	.33	.11	7.31**	.26*	.24	.06	3.37+	1,58
Sharing household tasks	.26*	.43	.07	4.69*	.09	.26	.01	.97	2,57
Time/week	.18	.45	.03	1.89	.13	.29	.01	.43	3,56
Time/weekend	.03	.45	.00	.95	.07	.29	.00	.07	4,55
Range of childcare activities	.06	.46	.00	.30	.04	.29	.00	.15	5,54
Marital satisfaction convergence	.05	.47	.00	.21	.03	.29	.00	.23	6,53

R-2 Total = .22; $F(6,52) = 2.93$; $p < .05$.

* $p < .05$; ** $p < .01$; *** $p < .001$.

R-2 Total = .08; $F(6,53) = .81$; NS.

Tables 3 and 4 present the results of four hierarchical multiple-regression models predicting Mother Sensitivity, Infant Readiness to Interact with Mother, Father Sensitivity, and Infant Readiness to interact with father by measures of the parent's involvement in childcare and marital convergence. Mother and Father Sensitivity were correlated, $r = .32, p = .01$. Infant Readiness to Interact with mother and father also was related, $r = .29, p = .025$. These findings point to the link between the mother-child and father-child relational systems.

Results presented in Table 3, predicting Mother Sensitivity and Infant Readiness to Interact with Mother, indicate that the parents' converging view on the sharing of household and childcare responsibilities each were significantly related to Mother Sensitivity. The other measures of the parent's involvement in childcare—amount of time and range of childcare activities—and marital convergence were unrelated to Mother Sensitivity. Infant Readiness to Interact with mother was related only to the sharing of childcare responsibilities between parents, and the model as a whole was not significant.

As seen in Table 4, sharing household and childcare responsibilities, the amount of time father spends with the infant during the weekend, the range of childcare activities the father performs, and the parents' convergence on marital satisfaction were each meaningfully related to variability in Father Sensitivity. Only the amount of time father spends with the child during the week was not related to father sensitivity. Infant Readiness to Interact with father was related to sharing childcare responsibilities, to the range of father childcare activities, and to parental convergence on marital satisfaction.

In a final regression analysis, Mother Sensitivity was examined in relation to father variables. Results indicate that, in addition to sharing household and childcare responsibilities (the scores for which were the same for mothers and fathers), the Range of Childcare Activities father performs was meaningfully related to Mother Sensitivity (Beta = .24, R^2 Change = .06, F Change = 3.85, $p < .05$) and the model as a whole proved significant [R^2 Total = .27; $F(6,52) = 3.87, p < .05$].

These results support the hypothesis that the various aspects of parental involvement in childcare are related more closely to father-child interaction as compared to mother-child interaction. The parents' marital convergence, an index of the marital quality, also was related to father-child, but not to mother-child, interaction. The sharing of childcare responsibilities, on the other hand, proved a meaningful contributor to both mother and father interactive sensitivity.

DISCUSSION

Results of this study add to the body of empirical evidence suggesting that at the transition to parenthood, the three family subsystems—the marital, mother-child, and father-child—are sensitive to mutual influences (e.g., Cown & Cowan, 1992). Such transactions may be individual to dyadic, where each member of the triad contributes to the relationship between the other two, or dyadic to dyadic, where each relationship affects the other dyadic relationship. Present findings show that parents' convergence on marital satisfaction is related to father-child interaction (dyadic to dyadic); parents' sharing the burdens of household and childcare is related to mother-child and father-child relationship (dyadic to dyadic); mother-child and father-child interactions are correlated (dyadic to dyadic); and the range of childcare activities the father performs is associated with maternal sensitivity (individual to dyadic). These findings support perspectives that view the family as a unitary system (e.g., Minuchin, 1985) continuously shaped by transactions between its various subsystems.

Studies have emphasized the importance of father involvement to the marital quality and the mother-child relationship (Feldman et al., 1997; Levy-Shiff, 1994), yet a unitary definition

TABLE 4. *Predicting Father–Infant Interaction*

<i>Criterion</i>	<i>Father Sensitivity</i>				<i>Infant Readiness to Interact</i>				<i>DF Predictors</i>
	Beta	MR	R-2 Change	<i>F</i> Change	Beta	MR	R-2 Change	<i>F</i> Change	
Sharing childcare	.39***	.33	.14	9.56**	.19	.24	.06	3.65*	1,58
Sharing household tasks	.23*	.46	.07	4.70*	.03	.24	.00	.15	2,57
Time/week	.07	.46	.00	.35	.13	.28	.02	1.03	3,56
Time/weekend	.19+	.52	.04	3.65*	.07	.31	.01	.47	4,55
Range of childcare activities	.23*	.57	.05	3.76	.33*	.39	.05	3.48*	5,54
Marital satisfaction convergence	.25*	.64	.06	4.69*	.26*	.45	.05	3.78*	6,53

R-2 Total = .32; $F(6,52) = 4.71$; $p < .001$.
 * $p < .05$; ** $p < .01$; *** $p < .001$.

R-2 Total = .21; $F(6,53) = 2.71$; $p < .05$.

of father involvement has not been accepted, and little research has been done to examine correlations between different aspects of father involvement during infancy. The present results show few associations between the various determinants of father involvement: responsibility for household and childcare; the time spent with the infant during the week and on weekends; and the range of childcare activities father performs. At the same time, four of the above measures added meaningfully to the prediction of father sensitivity. The father's involvement with different domains of childcare appears to have a cumulative effect on the father's sensitivity during father–infant interaction, which is expressed in higher degrees of reciprocity, adaptation, acknowledgement of the infant's interactive bids, fluency of interaction, and positive affect. Sensitive fathering, therefore, seems to be related to the amount and range of the father's childcare responsibilities. Taking part in the mundane activities of house and childcare serves not only a supporting role for women but also promote men's sensitive relations with their infants. Belsky and colleagues' (1991) proposition—that fathering ranks along the involved-to-withdrawn polarity—receives support in the data. Fathers who assumed more of the “care” and “responsibility” dimensions of parenting, typically described as maternal functions (Clarke-Stewart, 1978; Lamb, 1977), also developed a more emotionally involved relationship with the child.

Of the several dimensions of father involvement, only the time the father spends with the infant during the week was not related to measures of fathering. At the transition to parenthood, the shift toward traditional sex roles reflects the father's growing preoccupation with his role as the breadwinner (Amstey & Whitbourne, 1987). Cohen (1987) suggests that fathers who are involved with the child and the family also express increased involvement with their job, which they perceive as means of providing for the family. Perhaps the amount of hours the father works during the week is not a good indicator of the level of involvement with home and infant but may be related to increased involvement with the family's financial needs. Longer work hours also may reflect higher educational attainment and employment status (Gottfried & Gottfried, 1994). A compromise between the father's longer work hours during the week and involvement in other aspects of childcare may be a mutual decision of the husband and wife for the benefit of both. On the other hand, whether the father prefers to spend his weekends with the family, at work, or in solitary leisure activities, may be a better indicator of the father's involvement/withdrawal and is indeed related to father sensitivity.

Our findings for dual-earner couples differ from those recently reported by Grych and Clark (1999). These authors found positive associations between marital satisfaction and sensitive fathering only for single-earner families at four months postpartum, whereas for dual-earner families the relations between marriage and fathering were negative. It was suggested that the results reflect the increased stress fathers experience upon the mother's resuming employment. In general, Crouter and colleagues (1987) suggest that different mechanisms underlie father involvement in the single- and dual-earner family—in the first case, the father participates out of choice, in the latter, out of necessity. One reason for the different findings may be related to the Israeli social policy. Mothers in Israel receive a paid and mandatory maternity leave for three months and easier work conditions for one year. The financial support and shorter work day may have eased the mother's readjustment to work and prevented father stress and marital decline. An additional reason may be the measure of marital convergence used here as compared to measures of marital satisfaction used in previous research. In the dual-earner family, when the husband and wife both work and share responsibilities of childcare, it is possible that the marital decline observed at the transition to parenthood either is attenuated or occurs to the same extent in husband and wife. The marital convergence in both cases will be greater than in single-earner families, where the shift toward traditional sex roles is more pronounced.

The sharing of responsibilities between parents and the range of childcare activities the father performs predicted maternal sensitivity. Thus, the findings are consistent with the literature on the centrality of contextual support, in this case the husband's, to the development of maternal sensitivity (e.g., Belsky, 1984). However, unlike fathers, the amount of time mothers spent with the child and the range of childcare activities mothers performed was not related to mother-child interaction. Perhaps there is a ceiling effect for the impact of shared time and range of activities on the development of sensitive parenting. It is interesting to note that even among dual-earner couples the difference in the amount of time mothers and fathers spend with the infant is highly significant. Mothers spent nearly 2.5 times as many hours with the infant as fathers during a typical workday. These differences remained high even on weekends, a time when the gross imbalance observed during the week may have been reversed. Furthermore, the average response for sharing household and childcare responsibilities was between 3 (sharing, but the mother carries most of the burden) and 4 (sharing, but more than 50% of the responsibility is the mother's). Only a few couples reported that the father shared 50% of the responsibility, and not one couple reported the father's participation at more than 50% of the household or childcare responsibility. The findings underscore the difficult role of young working woman within a modern society, which, in principle, adheres to egalitarian views. These mothers are expected by themselves and society to advance in their career, but often the balance between the work and family roles within the family remains traditional (Pleck, 1985). Such imbalance also is inherent in our conceptual framework and terminology with regard to the division of labor. A parallel concept to "father involvement" is not used to describe "mother involvement" in the daily chores around the house and childcare. We speak of "social support" fathers (and others) provide to mothers, but not to fathers. Such terms convey the underlying meaning that the managing of household duties and childcare lies mainly on the mother's shoulders (Silverstein, 1991). Fathers may differ in the degree to which they "help out," but when concrete measures of their time and activities are assessed, childcare is far from being equally shared between spouses, even when both partners share the family's financial burdens.

Marital convergence—the degree of agreement between the mother's and the father's satisfaction with the marriage—was related to father-child interaction but not to mother-child relationship. Marital convergence rarely has been examined as a predictor variable at the transition to parenthood. Studies addressing marital satisfaction have examined pattern of change over time in the marital relationship, such as marriages that are consistently high or low on marital quality, improving, or deteriorating (e.g. Belsky et al., 1991; Heinicke & Guthrie, 1992). Research assessing the importance of parental convergence in the perception of the parenting role, childrearing attitudes, or parenting practices and behaviors (e.g., Lamb et al., 1989; McHale, 1995) used the marital accord as an outcome measure, demonstrating that a higher degree of convergence is related to better marital quality. The present results add to the literature on fathering the notion that parental convergence on marital satisfaction, not only the degree of marital satisfaction, is related to father-child relationship. Mothers who typically report greater decline in marital satisfaction (Belsky et al., 1991) are not only less sensitive to the marital quality but also are less influenced by the discrepant assessment of marriage by husband and wife. At the first post-birth period, mothers undergo a period of biologically based preoccupation, which implies a complete mental focus on infant safety, survival, and the building of the attachment relationship (Feldman, Weller, Leckman, Kvint, & Eidelman, 1999; Insel, 1997; Winnicott, 1956) and excludes focus on the marital relationship. Fathers, on the other hand, are more dependent on the various aspects of the marital relationships for the development of fathering, including the husband-wife agreement on marital satisfaction.

The transition to parenthood in the dual-earner family is a topic in need of much further research. The complexities and special challenges facing the dual-earner couple as they are attempting to balance the conflicting needs of work and family require special attention. The individual, contextual, cultural, and social-policy determinants that may facilitate or disrupt the parents' ability to function at home and in the workplace need to be examined in depth among families of different social classes, marital patterns, living arrangements, and cultural background.

REFERENCES

- Amstey, F.H., & Whitbourne, S.K. (1987). Work and motherhood: Transition to parenthood and women's employment. *Journal of Genetic Psychology*, 149, 111–118.
- Barnett, R.C., & Baruch, G.K. (1987). Determinants of fathers' participation in family work. *Journal of Marriage and the Family*, 49, 29–40.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55, 83–96.
- Belsky, J., Crnic, K., & Gable, S. (1995). The determinants of coparenting in families with toddler boys: Spousal differences and daily hassles. *Child Development*, 66, 629–642.
- Belsky, J., Lang, M., & Huston, T.L. (1986). Sex typing and division of labor as determinants of marital change across the transition to parenthood. *Journal of Personality and Social Psychology*, 50, 517–522.
- Belsky, J., & Pensky, E. (1988). Marital change across the transition to parenthood. *Marriage and Family Review*, 12, 133–156.
- Belsky, J., Rovine, M., & Fish, M. (1989). The developing family system. *Minnesota Symposia on Child Psychology*, 22, 119–166.
- Belsky, J., Youngblade, L., Rovine, M., & Volling, B. (1991). Patterns of marital change and parent-child interaction. *Journal of Marriage and the Family*, 53, 487–498.
- Clarke-Stewart, A. (1978). And daddy makes three: The father's impact on mother and young child. *Child Development*, 49, 466–478.
- Cohen, T.F. (1987). Remaking men: Men's experiences becoming and being husbands and fathers and their implications for reconceptualizing men's lives. *Journal of Family Issues*, 8, 57–77.
- Cowan, P., & Cowan, C. (1992). When partners become parents: The big life change for couples. New York: Basic.
- Cox, M.J., Owen, M.T., Lewis, J.M., & Henderson, V.K. (1989). Marriage, adult adjustment, and early parenting. *Child Development*, 60, 1015–1024.
- Crockenberg, S.B., & McClusky, K. (1986). Change in maternal behavior during the baby's first year of life. *Child Development*, 57, 746–753.
- Crouter, A.C., Perry-Jenkins, M., Huston, T.L., & McHale, S.M. (1987). Processes underlying father involvement in dual-earner and single-earner families. *Developmental Psychology*, 23, 431–440.
- Cutrona, E. (1984). Social support and stress in the transition to parenthood. *Journal of Abnormal Psychology*, 93, 378–390.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin*, 118, 108–132.
- Feldman, R., Greenbaum, C.W., Mayes, L.C., & Erlich, H.S. (1997). Change in mother-infant interactive behavior: Relations to change in the mother, the infant, and the social context. *Infant Behavior and Development*, 20, 153–165.
- Feldman, R., Weller, A., Leckman, J.F., Kvint, J., & Eidelman, A.I. (1999). The nature of the mother's

- tie to her infant: Maternal bonding under conditions of proximity, separation, and potential loss. *Journal of Child Psychology and Psychiatry*, 40, 929–940.
- Feldman, S.S., Nash, S.C., & Aschenbrenner, B.G. (1983). Antecedents of fathering. *Child Development*, 54, 1628–1636.
- Fincham, F.D. (1998). Child development and marital relations. *Child Development*, 69, 543–574.
- Gjerde, P.F. (1988). Parental concordance on child rearing and the interactive emphases of parents: Sex differentiated relationships during the preschool years. *Developmental Psychology*, 24, 700–706.
- Gottfried, A.E., & Gottfried, A.W. (1994). *Redefining Families: Implications for children's development*. New York: Plenum.
- Gottman, J., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A sequential analysis of verbal and nonverbal behavior. *Journal of Marriage and the Family*, 9, 461–477.
- Grych, J.H., & Clark, R. (1999). Maternal employment and development of the father–infant relationship in the first year. *Developmental Psychology*, 35, 893–903.
- Harlap, S., Davis, A.M., Grower, M.B., & Prywes, B. (1977). The Jerusalem perinatal study: The first decade (1964–1977). *Israel Medical Journal*, 13, 1073–1091.
- Heinicke, C.M. (1984). Impact of prebirth parent personality and marital functioning on family development: A framework and suggestions for further study. *Developmental Psychology*, 20, 1044–1053.
- Heinicke, C.M., & Guthrie, D. (1992). Stability and change in husband–wife adaptation and the development of the positive parent–child relationship. *Infant Behavior and Development*, 15, 109–127.
- Insel, T.R. (1997). A neurobiological basis of social attachment. *American Journal of Psychiatry*, 154, 726–735.
- Lamb, M.E. (1977). Father–infant and mother–infant interaction in the first year of life. *Child Development*, 48, 167–181.
- Lamb, M.E., Hwang, C.P., & Broberg, A. (1989). Associations between parental agreement regarding child-rearing and the characteristics of families and children in Sweden. *International Journal of Behavioral Development*, 12, 115–129.
- Lamb, M.E., Pleck, J., Charnov, E.L., & Levine, J.A. (1987). A biosocial perspective on paternal behavior and involvement. In J.B. Lancaster, J. Altman, A. Rossi, & L.R. Sherrod (Eds.), *Parenting across the life span* (pp. 11–142). Chicago: Aldine.
- LaRossa, R. (1988). Fatherhood and social change. *Family Relations*, 37, 451–457.
- Levy-Shiff, R. (1994). Individual and contextual correlates of marital change across the transition to parenthood. *Developmental Psychology*, 30, 591–601.
- Levy-Shiff, R., & Israelashvili, R. (1988). Antecedents of fathering: Some further explorations. *Developmental Psychology*, 24, 434–440.
- Locke, H., & Wallace, K. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, 21, 251–255.
- Mayes, L.C., Feldman, R., Granger, R.H., Haynes, M.O., Bornstein, M.H., & Schottenfeld, R. (1997). The effects of polydrug use with and without cocaine on mother–infant interaction at 3 and 6 months. *Infant Behavior and Development*, 20, 489–502.
- McHale, J.P. (1995). Coparenting and triadic interactions during infancy: The roles of marital distress and child gender. *Developmental Psychology*, 31, 985–996.
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, 56, 289–302.
- Parke, R.D. (1996). *Fatherhood*. Cambridge, MA: Harvard University Press.
- Parke, R.D., & Beitel, A. (1988). Disappointment: When things go wrong in the transition to parenthood. *Marriage and Family Review*, 12, 221–265.

- Pleck, J. (1985). *Working wives/working husbands*. Beverly Hills, CA: Sage.
- Ruble, D.N., Hackel, L.S., Fleming, A.S., & Stangor, C. (1988). Changes in marital relationship during the transition to first time motherhood: Effects of violated expectations concerning division of household labor. *Journal of Personality and Social Psychology*, 55, 78–87.
- Russell, A., & Russell, G. (1994). Coparenting early school-age children: An examination of mother–father interdependence within families. *Developmental Psychology*, 30, 757–770.
- Seginer, R. (1988). Adolescents' orientation toward the future: Sex role differentiation in a sociocultural context. *Sex Roles*, 18, 739–757.
- Silverstein, L.B. (1991). Transforming the debate about child care and maternal employment. *American Psychologist*, 46, 1025–1032.
- Van Ijzendoorn, M.H., Tavecchio, L.W.C., Stams, G.J., Verhoeven, M., & Reiling, E. (1998). Attunement between parents and professional caregivers: A comparison of childrearing attitudes in different child-care settings. *Journal of Marriage and the Family*, 60, 771–781.
- Winnicott, D.W. (1956). *Collected papers: Through pediatrics to psychoanalysis*. New York: Basic Books.