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Inter-parental similarity in responsiveness and control and its association with perceptions of the marital relationship

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Abstract: *This study examined how similarities and differences between spouses' parenting styles are associated with characteristics of their marital relationship. First, we explored the extent to which husbands and wives are similar or different in their attitudes about and communication of parental responsiveness and parental control. Then, we investigated how similarity in partners' parental communication predicts perceptions of the marital relationship. We conducted a study in which 51 families, consisting of a married heterosexual couple and their 3–6 year old child, each completed a survey about their parenting beliefs and marital relationship and participated in interaction tasks where spouses evaluated each other's parenting behavior. Independent coders rated parent–child interactions for observed parental responsiveness and control. Results showed that spouses were interdependent in terms of observed parental responsiveness and both self-reported and observed parental control. Multi-level modeling revealed that similarity across spouses in terms of observed parental responsiveness and self-reported and observed parental control were positively associated with marital satisfaction. In addition, similarity of observed responsiveness and observed control were associated with more positive evaluations of a partner's parenting behavior. Our results are discussed in terms of implications for understanding coparenting dynamics and interdependence between spouses.*

Keywords: family systems, marital relationship, coparenting, parenting, family communication

Family systems theory highlights the interdependent relationships that exist among family members and identifies subsystems within the family (Galvin, Dickson, & Marrow, 2006; Minuchin, 1974). The holistic nature of family communication implied by the theory suggests that different roles in the family system influence family members' interactions. Along those lines, family members must learn to balance their various roles and communicate with consistency across the various family subsystems (Belsky, Youngblade, Rovine, & Volling, 1991; Katz & Gottman, 1996). In particular, balancing roles as parents and spouses can be an especially challenging experience for marital dyads. Prior research suggests that disagreements about parenting and child-rearing are a common source of marital discord (e.g., Cummings & Davies, 2010; Cummings, Goeke-Morey, & Papp, 2001; Mahoney, Jouriles, & Scavone, 1997). In other words, inconsistencies in the ways that spouses manage their roles as parents can be a source of strife in their marital relationship. Thus, the goal of this study is to investigate how similarities and differences between spouses' parenting styles contribute to marital outcomes.

We draw on the parenting styles typology (Baumrind, 1967, 1971; Maccoby & Martin, 1983) as a theoretical framework that highlights dimensions of parenting behaviors that may be employed differently by mothers and fathers. Specifically, the parenting styles literature highlights messages of parental responsiveness and parental control as central to communication between parents and children (Baumrind, 1991; Maccoby & Martin, 1983). Two limitations have been identified with regard to the research on parenting styles. First, research on parenting styles has tended to focus exclusively on mothers' parenting styles and assumes that fathers parent in the same manner (Simons & Conger, 2007; Winsler, Madigan, & Aquilino, 2005). Although

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some recent research has focused on fathers' parenting behavior (e.g., Combs-Orme & Renkert, 2009; Lamb, 2010), relatively fewer studies have considered the extent to which fathers and mothers are coordinated in their parenting styles. There is evidence that coparenting dynamics affect family functioning (see Cummings & Davies, 2010; Doherty & Beaton, 2004; Margolin, Gordis, & John, 2001); therefore, it is important to look at fathers' parenting behavior separately and in relation to a mother's parenting style. Second, although a considerable amount of research has examined how parenting styles and coparenting dynamics correspond with children's well-being (e.g., McKinney & Milone, 2012; McKinney, Milone, & Renk, 2011; Simons & Conger, 2007; Weiss & Schwarz, 1996), less is known about the impact that differences in parenting style can have for the spousal relationship aside from increased marital conflict (e.g., Cummings & Davies, 2010). In light of prior research that suggests the existence of interdependent relationships across marital and parental subsystems (Buehler & Gerard, 2002; Erel & Burman, 1995), there is a reason to believe that the degree of spousal interparental agreement is associated with characteristics of marital dynamics. This study addresses these limitations theoretically and methodologically by measuring interdependence between mothers' and fathers' parenting styles and assessing the marital characteristics and qualities associated with coparenting dynamics.

Drawing on the assumptions of interdependence and holism in family systems theory (Bowen, 1976; Minuchin, 1974) and employing a theoretical view of parenting styles (Baumrind, 1967, 1971, 1991; Maccoby & Martin, 1983), the goals of this study are twofold. First, we investigate the extent to which husbands and wives are similar or different in both their beliefs about parenting and their enactment of parental communication in an effort to characterize the nature of their coparenting relationship. Second, we examine how similarity in partners' parental responsiveness and control are associated with marital dynamics, such as relationship satisfaction and appraisals of a partner's parenting.

Communicating parental responsiveness and parental control

The literature on parent–child interaction has identified two dimensions of parenting behavior: Parental responsiveness and parental control (Grolnick & Gurland, 2002; Segrin & Flora, 2011; Stafford & Bayer, 1993). *Parental responsiveness* refers to the extent to which parents are attuned to their child's needs by employing warm and supportive communication to promote individuality and self-regulation in the child (Baumrind, 1991). Parental responsiveness is accomplished through communication that makes children feel cared for, supported, and accepted (Peterson & Hann, 1999). *Parental control* refers to the demands parents make on their child to integrate into the family system, and emphasizes hierarchy and obedience in disciplining the child (Baumrind, 1991). Two forms of control constitute this dimension: (a) *behavioral control* is the regulation of the child's behavior through firm discipline, behavioral monitoring, and limit setting (Barber, 1996); and (b) *psychological control* is the parents' control over the behavior of their child through emotional means (Aunola & Nurmi, 2005). Behavioral control may include directive declarative statements, negative acknowledgments, and physical punishments (Baumrind, 1995; Krcmar, 1996; Wilson & Whipple, 1995). Psychological control may include expressions of disappointment, love withdrawal, parental intrusiveness, and guilt and shame induction (Barber, 1996; Gottman, Katz, & Hooven, 1997).

Although parenting involves a broad array of behaviors, the vast majority of parenting practices are encompassed under the dimensions of responsiveness and control (e.g., responsiveness encompasses behaviors related to attentiveness, warmth, and support, and control encompasses behaviors related to discipline, obedience, and the reinforcement of family hierarchy). The two dimensions combine to create a taxonomy of four distinct parenting styles: Authoritative, permissive, authoritarian, and neglecting (Baumrind, 1967, 1971, 1991; Maccoby & Martin, 1983). Whereas *authoritative parents* are high in both responsiveness and control, *permissive parents* are high in

responsiveness but low in control. *Authoritarian parents* are low in responsiveness and high in control, and lastly, *neglecting parents* are low in both responsiveness and control.

One of the limitations of the parenting styles literature has been an almost exclusive focus on maternal parenting style (Socha & Yingling, 2010). Scholars have assumed that fathers hold the same parental attitudes and present the same parental behavior as their spouse, despite the fact that there is limited evidence to support the assumption of similar parenting styles across spouses. In recent years, however, a growing number of studies point to the changing trends of increased father involvement in children's lives and the many ways in which fathers influence their children's development (e.g., Combs-Orme & Renkert, 2009; Lamb, 2010; Schober, 2012). Thus, considering the father's parenting style in conjunction with the mother's parenting style is important to better understand the consequences that inter-parental agreement or disagreement may have on the family. In addition, although some studies have looked at how paternal and maternal styles interact to shape family dynamics (e.g., Simons & Conger, 2007; Winsler et al., 2005), those studies each employed a different methodology (i.e., either self-report or observations) and findings from these studies show inconsistent results regarding similarity and difference in spouses' parenting styles that may be due to the use of different methods. It is unclear, then, whether mothers and fathers perceive and/or enact similar or different parenting behaviors in terms of responsiveness and control, yet inter-parental similarity or difference may have significant consequences for the family system (Cummings & Davies, 2010). Thus, the first goal of this study is to examine whether mothers and fathers enact similar or different parenting behaviors in terms of responsiveness and control.

Parents may or may not demonstrate inter-parental similarity in beliefs and behavior. On one hand, to the extent that individuals are attracted to mates who demonstrate similar communication behaviors, spouses may share similar attitudes and enact similar communication strategies in their parenting (Homish & Leonard, 2005; Luo & Klohnen, 2005). On the other hand, a variety of social forces may contribute to distinctive parenting practices for mothers and fathers. For example, social assumptions that children require nurturing and support may contribute to similar amounts of responsiveness from both parents; however, spouses who embrace more traditional gender roles may exhibit more responsive behaviors from mothers than fathers (McKinney & Renk, 2008). Similarly, parents with traditional gender roles might expect fathers to be more controlling than mothers (Cassano, Perry-Parrish, & Zeman, 2007); however, parents who explicitly negotiate their expectations for discipline and control to ensure consistency between spouses are more likely to demonstrate similar levels of control in their parenting behavior. Given that evidence supports both similarity and difference between mothers' and fathers' parenting behavior, we advance the following research question to probe the degree of similarity across parents in terms of responsiveness and control:

> RQ1: To what extent is (a) self-reported and (b) observed parental responsiveness and parental control similar or different for mothers and fathers?

Similarity of parenting style across spouses and perceptions of the marital relationship

The interdependence that exists between mothers' and fathers' parenting beliefs and behaviors can have implications for the marital relationship. As suggested by family systems theory (Bowen, 1976; Cox & Paley, 2003; Minuchin, 1974), each subsystem within the family (e.g., the marital subsystem, the parental subsystem) influences and is influenced by the other subsystems. The inherent interplay between family subsystems promotes the idea that the parental and marital subsystems are interdependent and implies that communication within the parental subsystem may affect interactions in the marital subsystem (see also Adamsons & Pasley, 2006; Gable, Belsky, & Crnic, 1992). Family systems theories acknowledge this idea and highlight the coparenting subsystem as a link between parent–child

and marital family subsystems. The coparenting unit focuses on spouses in their parental roles (Feinberg, 2003). Prior research on coparenting mostly examined the extent to which partners support or undermine each other's parenting (Feinberg, 2003; Jia & Schoppe-Sullivan, 2011) and explored the associations between partners' coparenting dynamics and children's well-being (McHale & Cowan, 1996; McHale & Lindahl, 2011). Considerably less research, however, has specifically looked at the similarity of spouses' parenting practices, and moreover, at its association with family outcomes. The few studies that did, focused either on associations with children's behavioral outcomes (e.g., Lindsey & Mize, 2001; Simons & Conger, 2007), or highlighted no outcomes at all (e.g., Winsler et al., 2005). Although it is certainly important to examine the outcomes that parenting behavior has for children, exploring the ways in which coparenting dynamics may affect the spousal relationship is equally important for identifying factors that are associated with the characteristics and quality of a marriage.

There are a number of characteristics that account for dissimilar parenting styles between spouses and may contribute to marital discord. Dissimilarities in parenting attitudes may reflect differences between spouses' specific psychological characteristics, such as levels of introversion and extroversion (Belsky, Crnic, & Gable, 1995), and their communication skills, such as problem solving strategies (Margolin et al., 2001). Studies indicate that disagreements about parenting and child-rearing, which may reflect inter-parental differences, are common sources of tension between spouses (e.g., Carpenter & Halberstadt, 2000; Cummings & Davies, 2010; Mahoney et al., 1997; Papp, Cummings, & Goeke-Morey, 2009). Taken together, these findings suggest that partners who are more divergent in their attitudes about child-related issues may experience more challenges in their coparenting relationship, which is reflected in their marital interaction. By extension, whereas differences in attitudes and parenting practices are associated with increased disagreement and conflict, similar parenting styles likely correspond with more balance and satisfaction in the marital relationship. Thus, we propose the following hypotheses:

H1: Similarity in (a) self-reported and (b) observed parental responsiveness is positively associated with marital satisfaction.

H2: Similarity in (a) self-reported and (b) observed parental control is positively associated with marital satisfaction.

In addition to corresponding with spousal perceptions of marital satisfaction, similarity of parenting styles may also be related to spouses' evaluations of one another's specific parenting behaviors. Prior research shows that partners who share similar psychological attributes, demographic characteristics, and child-rearing attitudes are more supportive in their coparenting relationship and evaluate it more positively than spouses who do not share similar characteristics (Belsky et al., 1995). Because the coparenting relationship is characterized by the extent to which spouses either support or undermine one another's parenting behaviors (Aydintug, 1995; Feinberg, 2003), positive associations between similarity of personal characteristics and coparenting may reflect spouses' approval of their partner's parenting behavior. Thus, we predict that spouses who share similar beliefs about and enactment of parental responsiveness and control evaluate each other's parenting practices more positively than spouses with different parenting styles. Accordingly, we advance the following hypotheses:

H3: Spouses evaluate their partner's parenting behavior more positively when it is similar to their own (a) self-reported and (b) observed parental responsiveness.

H4: Spouses evaluate their partner's parenting behavior more positively when it is similar to their own (a) self-reported and (b) observed parental control.

Method

To test our hypotheses and research question, we conducted a study in which married heterosexual couples and their 3- to 6-year old child were invited to the interaction laboratory in a

communication department at a large northeastern university to complete a series of self-report measures and interaction tasks. We recruited participants for this study by distributing flyers in preschools and daycare centers in the community. Using a snowball sampling strategy, additional families were referred to the study by former participants. Families were eligible to participate if: (a) the parents were married to each other, (b) they were the biological parents of a 3- to 6-year old child, (c) the 3- to 6-year old child was their first (but not necessarily their only) child, (d) all family members lived together in the same household, and (e) both partners were at least 18 years of age.[2] Families that met the eligibility criteria were invited to make an appointment to come to the laboratory to complete the study elements. Each spouse received $40 for their participation and the child was allowed to pick a toy from an assortment of toys.

Participants

Participants in this study were 51 heterosexual couples and their first biological, 3- to 6-year old child from the Northeast area of the United States. Parents ranged in age from 23 to 52 years (M = 35.15, SD = 5.67). Children ranged in age from 3 to 6 years (M = 3.95, SD = 0.89) with 24 boys and 27 girls participating in the study. Couples were married for an average of 6.17 years (range 10 months-14 years) and had on average 1.65 children (range 1 child to 3 children: 37.3% had 1 child, 58.8% had 2 children, and 3.9% of the couples had 3 children). In terms of education, 14.7% of the parents who participated in the study were high school graduates, 48% had a 2- or 4-year college degree, 29.4% held a Masters degree, and 7.8% had a doctoral degree. Participants reported their annual household income, with 13.4% of the families making $50,000 or less, 65% making $50,001 to $125,000 a year, and 21.6% reported an annual household income higher than $125,001. The majority of participants (67.6%) were Caucasian, 10.8% were African-American, 9.8% were Hispanic, 7.8% were Asian/Pacific Islander, 4.9% were Indian, 2% were Middle Eastern, and 2.9% reported Other.[3]

Procedure

Upon arrival at the research laboratory, each spouse was asked to provide consent to participate in the study. The participants were generally told that the study explored communication dynamics between parents and their children and between spouses. They were not provided with more information about the nature of the study or its purposes to avoid any possible influences on the way they would act during the study. Then, each of the parents individually completed a questionnaire with closed-ended items about their marital relationship and the ways they enact parental responsiveness and control with their child. Participants were told that their answers would stay completely confidential and would not be shared with their partner. After the spouses completed the survey, the family was asked to participate in a series of interaction tasks. In this part of the procedure, parents were asked to work individually with their child on two tasks that were challenging for their child and were told that they could help the child in whatever ways they felt were appropriate. The tasks (based on Cohn, Silver, Cowan, Cowan, & Pearson, 1992) included finding matching pairs in a memory game and completing a jigsaw puzzle. Two parallel versions of puzzles were used for each parent–child interaction so that the puzzle was unfamiliar to the child in the interactions with each parent. Participants were given 7.5 minutes to complete each task (i.e., the memory game and the puzzle), for a total of 15 minutes of interaction. The interactions were video-taped.

While one parent and the child worked on the tasks in an interaction room, the other parent watched the parent–child interaction on a

[2] The sample was limited to heterosexual, married couples and their 3- to 6-year old biological child to be consistent with previous studies on parenting styles, and especially with studies that looked at similarities in spousal parenting style (i.e., Simons & Conger, 2007; Winsler et al., 2005).

[3] The percentages for ethnicity sum to more than 100% because participants were instructed to check all ethnicities that applied.

television from a different room in the laboratory. The observing parent evaluated his or her spouse's parenting strategies during the interaction using a variety of closed-ended survey items about their partner's parental responsiveness and control. After the first spouse had completed the tasks with the child the spouses switched roles, such that the spouse who was evaluating the parent–child interaction would work on a similar series of tasks with their child while the other spouse observed the interaction from a separate room and evaluated the spouse's parenting behavior. Both parents were aware that their spouse would be evaluating their parenting before the interaction tasks began. The families were randomly assigned to have either the father or the mother engage in the tasks with the child first to limit ordering effects.

Measures

We conducted confirmatory factor analyses on all of our multi-item scales to ensure that they met the criteria of face validity, internal consistency, and parallelism (Hunter & Gerbing, 1982). The criteria for a good fitting factor structure were set at $\chi^2/df < 3.0$, comparative fit index (CFI) >0.95, and root mean squared error of approximation (RMSEA) <0.08 (Bryne, 2010; West, Taylor, & Wu, 2012). All of the reported scales met the criteria for a good fitting model. After confirming the unidimensionality of each scale, a composite score was computed by averaging responses across items.

Self-reported parental responsiveness and parental control

We combined items from Aunola and Nurmi's (2004) Parenting Style Questionnaire (PSQ) and Robinson, Mandleco, Olsen, and Hart's (2001) Parenting Style and Dimension Questionnaire (PSDQ) to measure perceived enactment of parental responsiveness and control. Each parent was asked to rate their level of agreement (1 = *strongly disagree*, 7 = *strongly agree*) with a set of statements for parental responsiveness and a set of statements for parental control. Ten items measured *parental responsiveness* (e.g., 'I talk it over and reason with my child when he/she misbehaves'; 'I express my affection by hugging and holding my child') (M = 6.1; SD = 0.57; α = 0.75), and eight items measured *parental control* (e.g., 'My child must learn that there are rules in our family'; 'I let my child see how disappointed I am if he/she misbehaves') (M = 4.23; SD = 0.87; α = 0.75).

Observed parental responsiveness and parental control

Video-taped interactions were coded by a team of four trained coders to identify manifestations of responsiveness and control in the parent–child interactions. In their training, the coders were given the theoretical definitions of parental responsiveness and control and the team coded numerous examples of parental responsiveness and control for both mothers and fathers as a whole group before being allowed to code independently. The coders were given coding schemes developed by the authors to evaluate the levels of responsiveness and control with the following instructions: 'For each 1-minute interval of the conversation, please rate the interaction on a five-point scale with regard to the father's [mother's] responsiveness [control] in his [her] interaction with the child'. For each minute of interaction, the coders rated the interaction on a five-point scale which ranged from 1 (*Not At All Responsive/Controlling*) to 5 (*Completely Responsive/Controlling*). Coders were provided with pointers to evaluate low responsiveness (e.g., the parent is not listening to the child, the parent appears to be uncomfortable with the child), high responsiveness (e.g., the parent is being supportive, the parent acknowledges the child's attempts to do well on the task), low control (e.g., the parent makes no attempt to change the child's behavior during the task, the parent is relatively passive, tends to let the child guide the interaction or the task), and high control (e.g., the parent frequently uses directive declarative statements and overt commands, the parent takes an aggressive posture, the parent forces the child to make eye contact). The coders were instructed to rate the level of parental responsiveness and control in 25 interactions each week, starting with all of the fathers as a set. The coders then rated all of the mothers, separately from fathers, so they would not be able to compare mothers and fathers in the same family. The four coders attended

weekly meetings with the researchers to check their reliability and address discrepancies between coders. Reliability of the coders was determined using intraclass correlation (ICC). Following Wahlund, List, and Dworkin (1998), an acceptable reliability was set at ICC = 0.70. Coders were reliable across the dimensions of observed parental responsiveness (ICC = 0.73; *M* = 4.47; SD = 0.50) and observed parental control (ICC = 0.76; *M* = 2.33; SD = 0.57).

Similarity of parental responsiveness and parental control

We calculated difference scores between mothers' and fathers' responsiveness and control as a measure of similarity. Although difference scores have been widely used to operationalize similarity, they can be unreliable since they may be correlated with the values used to compute them (Cronbach & Furby, 1970) and they can compound measurement error due to regression to the mean (Lord, 1963). In order to address these issues, we followed procedures outlined by Theiss and Solomon (2008) in which each spouse's reported or observed parental responsiveness or control was weighted based on its own association with the dependent variable prior to calculating difference scores. We regressed mothers' and fathers' self-reported and observed responsiveness and control onto the dependent variables of relationship satisfaction and appraisals of the partner's parenting in separate analyses. We then used the resulting standardized beta coefficients to weight each of the independent variables and used the weighted values to calculate difference scores by subtracting the wife's weighted score on each variable from the husband's weighted score.

This procedure yielded computed variables where 0 represented complete similarity between the spouses, a positive value indicated that the husband had a higher score than the wife, and a negative value indicated that the wife had a higher score than her husband. Then, we took the absolute value of the differences, but made the absolute value negative, so that the resulting variable had the potential to range from −7 (spouses are completely different) to 0 (spouses are completely similar). For the marital satisfaction inquiry, the resulting variable for the similarity in self-reported parental responsiveness ranged from −2.00 to 0 (*M* = −0.92; SD = 0.40); the variable for the similarity in self-reported parental control ranged from −3.90 to 0 (*M* = −0.97; SD = 0.88); the variable for the similarity in observed parental responsiveness ranged from −1.14 to −0.83 (*M* = −1.02; SD = 0.08); and the variable for the similarity in observed parental control ranged from −0.31 to −0.11 (*M* = −0.20; SD = 0.45). For the association with the appraisals of a partner's parenting, the resulting variable for the similarity in self-reported parental responsiveness ranged from −1.50 to 0 (*M* = −0.73; SD = 0.26); the variable for the similarity in self-reported parental control ranged from −2.59 to −0.25 (*M* = −1.45; SD = 0.76); the variable for the similarity in observed parental responsiveness ranged from −1.23 to 0 (*M* = −0.69; SD = 0.09); and the variable for the similarity in observed parental control ranged from −1.06 to 0 (*M* = −0.57; SD = 0.07).

Marital satisfaction

We measured relational satisfaction in marriage using Fletcher, Simpson, and Thomas' (2000) Perceived Relationship Quality Component (PRQC) Inventory. Participants used a seven-point scale (1 = *not at all,* 7 = *extremely*) to indicate their response to three questions: (a) How satisfied are you with your relationship?; (b) How content are you with your relationship?; (c) How happy are you with your relationship? (*M* = 3.69; SD = 1.16; α = 0.96).

Appraisals of a partner's parenting

While watching their spouse interacting with the child each parent evaluated their partner's parenting strategies. Parents were told to evaluate only the interaction they were observing. We developed a seven-point Likert scale asking participants to indicate how much they agreed (1 = *strongly disagree*; 7 = *strongly agree*) with a series of statements regarding their partner's parenting behavior in the interaction. Participants completed the scale twice, once following the memory task and once following the puzzle task. Eight items assessed the spouse's appraisals of his/her partner's parenting: (a) My spouse is being responsive to

our child's needs; (b) My spouse does not really understand how to help our child to complete this task (reverse coded); (c) My spouse's reactions to our child limit the child's ability to complete this task (reverse coded); (d) My spouse could use some advice in how to really listen to what our child is saying (reverse coded); (e) My spouse is very skilled at helping our child; (f) I would probably act the same way as my spouse in doing this task with our child; (g) I think my spouse is handling this task very well; (h) I would be more effective in helping our child complete this task (reverse coded) (M = 5.83; SD = 0.83; α = 0.82). The composite variable was computed by taking the average across all items from both tasks.[4]

Results

Tests of research question

Recall that our research question inquired about the extent to which mothers and fathers were similar or different in their self-reported and observed responsiveness and control. As a starting point for answering this question, we conducted paired-samples t-tests to compare the means on each of our variables for mothers and fathers in the same family. Significant differences were found for self-reported responsiveness ($t_{(50)} = -2.13$, $p < 0.05$), such that fathers (M = 6.0) reported that they were less responsive in their parenting than mothers (M = 6.21), and for observed responsiveness ($t_{(50)} = -8.6$, $p < 0.001$), such that fathers (M = 4.17) were seen as less responsive in their parenting interactions than were mothers (M = 4.76). Next, we evaluated the correlations between husbands and wives in terms of responsiveness and control. Results revealed positive associations between husbands and wives in terms of observed responsiveness ($r = 0.30$, $p < 0.05$) and both self-reported control ($r = 0.41$, $p < 0.001$) and observed control ($r = 0.26$, $p < 0.05$). Thus, although effect sizes are modest, initial analyses suggest that spouses differ in terms of their perceived parental responsiveness, but they tend to be similar in terms of their perceived and observed parental control. Results for observed responsiveness diverge, such that the means for mothers and fathers are significantly different, but they are still positively correlated.

To further probe the interdependence that exists between mothers and fathers in terms of their self-reported and observed responsiveness and control, we employed an actor-partner interdependence model (APIM; Cook & Snyder, 2005). The APIM was conducted using hierarchical linear modeling software (HLM 6.08) because it is designed to accommodate nonindependent or nested data (Bryk & Raudenbush, 1992). We evaluated our research question using a full maximum likelihood, two-level model with individual characteristics (e.g., self-reported and observed variables) at Level 1 and dyadic characteristics (i.e., length of marriage, number of children, and age of the child) at Level 2. We included these variables because they are likely to account for a portion of the variance in the studied outcome variables. For the APIM, the partner's self-reported or observed responsiveness or control was entered as a Level 1 predictor of the corresponding variable for the actor (e.g., partner's self-reported responsiveness predicted actor's self-reported responsiveness). Predictors were entered into the model as uncentered variables. All slopes were estimated as fixed effects and the intercept was estimated as a random effect. Results indicated that length of marriage, number of children, and age of the child did not significantly alter the value of the intercept (see Table 1). With regard to the slopes, the partner's observed responsiveness, self-reported control, and observed control were all positively associated with the corresponding variable for the actor. These results suggest that spouses may be interdependent in terms of the degree of parental control they perceive and enact with their children, but that they may diverge in terms of their perceived responsiveness.

[4] Before we collapsed the final score for the appraisals variable across memory and puzzle tasks, we calculated the raw codes for each interaction and computed scores separately for the first half of the interaction (i.e., memory task) and the second half of the interaction (i.e., puzzle task). Then, we conducted paired sample t-tests to determine whether responsiveness and control were enacted differently for each task. Results indicated no significant differences across tasks, so we collapsed ratings across both tasks in the study.

Table 1: Husbands' and wives' similarity of parental responsiveness and control

	Actor's self-reported responsiveness	Actor's self-reported control	Actor's observed responsiveness	Actor's observed control
Intercept	6.09***	4.21***	6.09***	4.21***
Length of marriage	–0.03	–0.01	–0.01	–0.01
Number of children	0.05	0.14	0.03	0.08
Age of child	0.09	0.09	0.05	0.03
Slope				
Partner's self-reported responsiveness	0.10			
Partner's self-reported control		0.33**		
Partner's observed responsiveness			0.18*	
Partner's observed control				0.21*
Residuals				
Intercept	0.00	0.00	0.00	0.00

The dependent variable is actors' parental responsiveness/control. Coefficients are unstandardized; $N = 102$; *$p < 0.05$; ***$p < 0.001$.

Tests of hypotheses

Prior to testing our substantive hypotheses, we assessed the bivariate correlations among our variables (see Table 2). Results indicated that marital satisfaction was positively associated with similarity of observed responsiveness, similarity of self-reported control, and similarity of observed control. In addition, appraisals of a partner's parenting were positively associated with similarity of observed responsiveness and similarity of observed control. Notably, associations between self-reported and observed responsiveness and control were nonsignificant. Next, we tested our hypotheses using multi-level modeling (HLM 6.08). Again, we constructed a full maximum likelihood model with individual characteristics at Level 1 and dyadic characteristics at Level 2. Predictors were entered into the model as uncentered variables. Slopes were estimated as fixed effects and intercepts were estimated as random effects.

Recall that *H1* and *H2* predicted that similarities between spouses in self-reported and observed responsiveness and control were positively associated with marital satisfaction. To test our hypotheses, we constructed four models where the similarity of self-reported responsiveness and control and similarity of observed responsiveness and control were each entered separately as predictors of marital satisfaction. Length of marriage and number of children were entered as grand-mean centered covariates on the Level 2 intercept. Results indicated that the length of marriage, number of children, and the age of the child did not significantly alter the value of the intercept (see Table 3). As for *H1*, similarity of self-reported responsiveness was not significantly associated with marital satisfaction, but similarity of observed responsiveness was positively associated with marital satisfaction. As for *H2*, similarity of self-reported and observed parental control were both positively associated with marital satisfaction. Thus, *H1* was partially supported and *H2* was fully supported.

The next set of hypotheses predicted that spouses would evaluate their partner's parenting behavior more positively when it is similar to their own parenting behavior (*H3* and *H4*). Four models identical to Model 1 were constructed where appraisals of a partner's parenting behavior was the outcome variable and similarity of self-reported responsiveness and control and similarity of observed responsiveness and control

Table 2: Correlations between similarity of responsiveness and control and marital outcomes

	1	2	3	4	5
1. Similarity of self-reported responsiveness					
2. Similarity of self-reported control	0.09				
3. Similarity of observed responsiveness	0.16	0.10			
4. Similarity of observed control	0.16	0.01	0.09		
5. Marital satisfaction	0.05	0.25*	0.31***	0.18*	
6. Eval. of spouse's parenting	0.10	0.11	0.21*	0.21*	0.38***

$N = 102$; *$p < 0.05$; ***$p < 0.001$.

Table 3: Similarity of parental responsiveness and control predicting marital satisfaction

	Self-reported responsiveness	Self-reported control	Observed responsiveness	Observed control
Intercept	5.99***	5.99***	5.99***	5.99***
Length of marriage	–0.01	–0.01	–0.05	0.07
Number of children	0.10	0.09	0.03	0.03
Age of child	0.03	0.15	0.15	0.17
Slope				
Self-reported responsiveness	0.11			
Self-reported control		0.19*		
Observed responsiveness			0.39*	
Observed control				0.41*
Residuals				
Intercept	0.00	0.00	0.00	0.00

The dependent variable is marital satisfaction. Coefficients are unstandardized; $N = 102$; *$p < 0.05$; ***$p < 0.001$.

were each entered as predictors in separate models. Results of this analysis indicated that length of marriage, the number of children, and the age of the child did not significantly alter the value of the intercepts in the four models (see Table 4). Turning to the slopes for the models, similarity of self-reported responsiveness was not significantly associated with the evaluation of a partner's parenting and neither was self-reported control. Similarity of observed responsiveness and observed control were, however, each positively associated with more positive appraisals of a spouse's parenting behavior. The residuals indicated that there was no significant variability left to be explained in the intercept. Thus, *H3* and *H4* were supported for the observed parenting behaviors but not for the self-reported parenting behaviors.

Discussion

This study explored the interdependence that exists between spouses' parental responsiveness and control to understand how similarities in parenting attitudes and behaviors across spouses correspond with perceptions of the marital relationship. Our findings highlight how similarity between mothers' and fathers' parenting styles is associated with marital outcomes, rather than children's behavior or well-being. First, we examined the extent to which spouses' parenting dimensions are interdependent. Second, we investigated how inter-parental similarity of parenting styles is associated with marital characteristics. Our results add to the literature on coparenting dynamics in that they demonstrate how beliefs about and practices of parental responsiveness and control play different roles in shaping marital qualities.

Table 4: Similarity of parental responsiveness and control predicting appraisals of a partner's parenting behavior

	Self-reported responsiveness	Self-reported control	Observed responsiveness	Observed control
Intercept	5.82***	5.82***	5.82***	5.82***
Length of marriage	–0.05	–0.04	–0.03	–0.04
Number of children	0.36	0.20	0.21	0.20
Age of child	0.14	0.12	0.16	0.17
Slope				
Self-reported responsiveness	0.13			
Self-reported control		0.04		
Observed responsiveness			0.39*	
Observed control				0.32*
Residuals				
Intercept	0.00	0.00	0.00	0.00

The dependent variable is appraisals of a partner's parenting behavior; $N = 102$; *$p < 0.05$; ***$p < 0.001$.

Similarity and difference between parents' responsiveness and control

Our first goal in this study was to examine to what extent husbands' and wives' dimensions of parental responsiveness and control are interdependent (*RQ1*). This research question was driven by a general lack of information about fathers' parenting style in the family literature, especially with regard to its interaction with mothers' parenting style. Recall that a large body of research has looked only at mothers' parenting style (see Marsiglio, Amato, Day, & Lamb, 2000; McHale & Lindahl, 2011) and that other recent work has focused only on fathers' parenting (e.g., Lamb, 2010). Our findings revealed that, with the exception of self-reported parental responsiveness, spouses were positively correlated in terms of their observed parental responsiveness and both their self-reported and observed parental control. Our results are generally consistent with previous findings pointing to similarity of parenting styles between mothers and fathers (Simons & Conger, 2007; Winsler et al., 2005) but highlight nuances in the complex nature of this interdependence that help to address some of the inconsistent results from that prior work.

Similarity between spouses in terms of parental responsiveness and control can be explained in light of family systems theory's idea of interdependence. Recall that within the family system, members' actions influence and are influenced by other members' behaviors (Galvin et al., 2006; Minuchin, 1974). Drawing on this logic, spouses may exert mutual influence in terms of their parenting behavior. As Rotolo and Wilson (2006) explained, there is a tendency toward similarity of behavior in married couples due to social cohesion (Kenny, 1998), which posits that individuals are strongly influenced by others with whom they are intimate and have frequent contact, such as their spouse. Especially in marriages where couples are highly satisfied and close, spouses may want to adopt and follow each other's parenting strategies and develop similar patterns of parental communication over time. Another possible explanation for the similarity in spouses' parental responsiveness and control is the nature of the mate selection process. Research often indicates that selecting a spouse involves an assortative mating process where individuals choose partners who have characteristics that are similar to their own (e.g., Homish & Leonard, 2005; Luo & Klohnen, 2005; Watson et al., 2004). From this perspective, similarity in parenting behavior likely stems from more deeply rooted similarities between spouses in terms of their attitudes, beliefs, and communication behaviors. Thus, there is theoretical precedence to expect that spouses are interdependent in the way they enact some aspects of parental communication.

Whereas spouses in our study were similar and interdependent in terms of self-reported parental control, there was no association between spouses in terms of self-reported parental responsiveness in the bivariate correlations or the HLM analysis. These results may imply different expectations for responsiveness and control in the context of parenting. Spouses are likely to view control as central to their role as parents in terms of enforcing punishment and discipline for their children, as well as socializing them to enact appropriate behavior in the family and society (Baumrind, 1991, 1995, 1996). This view reflects the assumption that parenting revolves around issues of control and that parents assume that their primary role as parents is to influence and teach their children through means of control (Baumrind, 1991; Darling, 1999). Consequently, it is possible that parents more readily define control than responsiveness and, thus, are able to agree on it more often. Furthermore, given the centrality of control in the context of parenting, expectations for parental control may be more explicitly negotiated between parents to ensure consistency in discipline and punishment. Thus, to the extent that parents communicate more explicitly about their expectations for control than for responsiveness, they are likely to demonstrate a higher degree of interdependence in parental control.

In contrast, expectations for responsiveness may be more implicit, because it generally goes without saying that parents should nurture and support their children in a variety of ways. The narrow dispersion of scores around the relatively high mean of both self-reported and observed parental responsiveness scales (i.e., range = 2.70 on a seven-point scale with a mean of 6.1, and 1.98 on a five-point scale with a mean of 4.47, respectively) may also attest to this interpretation. These values point to relatively high responsiveness by parents in this study, which suggests stronger attitudes about the importance of responsiveness in the family and more demonstrations of responsiveness in parent–child interaction as compared to parental control. The high means and limited variance for self-reported and observed responsiveness also suggest that our sample was relatively high-functioning, which may not be representative of experiences in more distressed families. They also may reflect Western ideals for parent–child communication norms, which may be different from expectations in other cultures. Further research is required to investigate the role of responsiveness in families with different social or cultural circumstances.

Our results also revealed one consistent difference between spouses in terms of their self-reported parental responsiveness, such that mothers reported more responsiveness than fathers. Perceptions of parental responsiveness may be different for husbands and wives due to sex role stereotypes that tend to portray mothers as more nurturing and responsive than fathers (McKinney & Renk, 2008). Consequently, mothers may be inclined to exaggerate their reports of responsiveness to conform to cultural expectations of maternity, whereas fathers may be less inclined to indicate that they engage in responsive behaviors due to the perception that responsiveness is a more feminine trait. Given these sex role stereotypes, men may not see responsiveness as part of their parental responsibility or they may be reluctant to admit responsiveness in self-report items for fear of appearing less masculine. Notably, observed responsiveness was correlated across parents; thus, whereas parents may be driven by cultural sex role stereotypes in their perceptions of appropriate parenting, in practice mothers and fathers tend to be quite similar in the degree of responsiveness they provide their children.

Similarity of parenting styles predicting marital outcomes

This study also aimed to examine the associations between similar and dissimilar parenting styles and marital characteristics, such as relationship satisfaction and appraisals of a partner's parenting. Our results showed that similarity of self-reported parental responsiveness was not significantly associated with marital satisfaction, but similarity of observed responsiveness and similarity of both self-reported control and observed control were all positively correlated with marital satisfaction. In addition, whereas similarity of self-reported responsiveness and control were not significantly associated with appraisals of a partner's parenting,

similarity of observed responsiveness and control were positively associated with more positive evaluations of a partner's parenting behavior.

Our findings show that similarity between spouses in responsiveness and control are not similarly associated with marital characteristics. Why is similarity in self-reported control associated with more marital satisfaction, whereas similarity in self-reported responsiveness is not? One explanation for this discrepancy may stem from gender role stereotypes. If mothers are stereotypically expected to be more responsive than fathers (McKinney & Renk, 2008), then spouses may come to anticipate different levels of responsiveness in their parental communication and may not be fazed by dissimilar parenting styles on this dimension. Similarity in terms of parental control, on the other hand, appears to be a more significant factor in predicting marital satisfaction. Given that a common source of marital discord is disagreement about child-rearing and discipline (Cummings & Davies, 2010; Mahoney et al., 1997), one explanation for this effect is that the increased conflict arising from different beliefs about parental control makes for a less satisfying marriage. Another possibility is that spouses may grow weary of their parental roles when they do not reinforce one another. In other words, enacting different levels of control may leave one spouse feeling undermined by the more relaxed parenting style of his or her partner.

We also found that self-reported and observed parenting behavior produced different associations with marital satisfaction, particularly with regard to parental responsiveness. Whereas similarity in observed parental responsiveness was associated with marital satisfaction, self-reported parental responsiveness was not. One explanation for this finding is that spouses may not be aware of the fact that they hold similar or dissimilar attitudes about responsiveness, but they can easily see when their spouse enacts parenting behaviors that are similar or different than their own. Thus, spouses may not need to have the same beliefs about responsiveness to be satisfied, but consistency in practice is an important contributor to marital satisfaction. This logic is consistent with family systems theory's notion of interdependence (Galvin et al., 2006), which suggests that spouses mutually influence each other's behavior. Specifically, in the context of parenting, spouses may have less influence on each other in terms of their attitudes about parenting but more influence in terms of the communication behaviors that are enacted.

We also found different effects for self-reported and observed parenting behavior in terms of predicting positive appraisals of a partner's parenting behavior. Our results showed that similarity of observed parental responsiveness and control contribute to more positive appraisals of a partner's parenting behavior, but similarity of self-reported responsiveness and control do not. One reason for these divergent effects is that partners can see, and therefore evaluate, one another's parenting behavior, but partners may be less aware of their partner's attitudes about parenting. Thus, spouses can see if their partner demonstrates parenting behavior that is similar to their own communication, which contributes to more positive appraisals of the partner's behavior. In addition, this finding demonstrates how supportive coparenting (Feinberg, 2003; Van Egeren & Hawkins, 2004) is mainly done via actual behavior. In supportive coparenting, spouses explicitly send supportive messages to accomplish parenting goals by cooperating and following each other's actions when interacting with their child. This process involves watching one's partner's actions and mutually generating shared parenting behaviors (rather than constructing similar perceptions or thoughts about parenting). Finally, another explanation for these results has to do with the different levels of operationalization. Whereas the similarity of parenting perceptions reflected participants' general beliefs about appropriate parenting behavior, the spousal appraisal was based on observations of specific behaviors in an actual problem solving interaction between parent and child. Thus, the results may reflect a discrepancy between global beliefs and localized behaviors. In this sense, future work should consider the extent to which spouses' evaluations of their partner's parenting behaviors in a specific interaction reflect, and are impacted by prior parental interaction and their more global evaluation of their spouse's family

communication. Future research should capture associations between equivalent operational levels of the studied variables more directly.

Although we examined similarity between spouses as a predictor of marital outcomes, it is important to note that establishing an interdependent coparenting relationship may require a certain degree of complementarity (Simons & Conger, 2007). In other words, each spouse may enact a slightly different parenting role for the sake of creating balance in the family system. For example, one parent may shoulder much of the burden for discipline if their spouse is unwilling or unable to enact a satisfactory level of control with the children. Their other spouse, then, may become the parent who enacts more nurturing and responsive behavior with their children to stay involved in their socialization and development. This type of complementary role assignment may be appropriate for providing children with a home that offers a balance of responsiveness and control and promotes well-adjusted emotional and behavioral outcomes for children (McKinney & Renk, 2008; Simons & Conger, 2007), but it is unclear how this type of complementary arrangement will be experienced by spouses. Although our results suggest that similar parenting behavior between spouses is more satisfying and viewed more positively by married couples, we wonder if spouses who negotiate different but complementary parenting roles may be satisfied as well. The impact of complementarity on marital satisfaction likely depends on whether it is mutually negotiated and desired or if spouses are forced into a parental role that does not suit their personal parenting styles and beliefs. Spouses are likely to be dissatisfied if they feel they are compensating for an uninvolved partner, rather than complementing their unique parenting strengths. We look forward to future research that investigates complementarity as a potentially satisfying parenting arrangement.

Strengths, limitations, and future directions

This research has theoretical, operational, and practical strengths. The first contribution of this study is that it juxtaposes the conceptual dimensions of responsiveness and control from the work on parenting styles (Baumrind, 1967, 1971, 1991; Maccoby & Martin, 1983) and assumptions of family systems theory (Bowen, 1976; Minuchin, 1974) to examine the interdependence that exists between marital and parental subsystems in the family. In this sense, our study offers a theoretical framework to investigate how marital and parental roles are integrated. In addition, we focused on dimensions of parenting rather than on types of parenting styles, which enabled us to portray the dynamic nature of the inter-parental relationship with regard to characteristics of the marital and co-parental relationships. Operationally, we employed both self-report and observational methods. Prior research employed only one method or the other, which has produced inconsistent results with regard to examining similarity in parenting styles (i.e., Simons & Conger, 2007; Winsler et al., 2005). By employing mixed methods of both self-report and observational measures, we were able to clarify how similar attitudes versus similar behaviors correspond with marital outcomes. Pragmatically, our findings provide evidence to help parents of young children to better manage their marital relationships. Couples should be encouraged to pay more attention to their behaviors, as well as to their attitudes about parental responsiveness and control to establish common parenting goals with their partner and heighten relational satisfaction.

There are also some limitations in this study. First, the sample size was limited to 51 families due to the limited availability of resources. Although this is an adequate number of participants for conducting a multi-level model (Maas & Hox, 2004, 2005), the sample may have lacked sufficient power to detect small and medium effects. Second, we are somewhat limited in generalizing our results in terms of ethnicity. Whereas some research points to different parenting behaviors across ethnic groups (e.g., McLoyd & Smith, 2002; Pardini, Fite, & Burke, 2008), our modest-sized sample did not enable us to analyze how ethnicity may be associated with parents' responsiveness and control. In addition, we did not assess participants' family expectations (e.g., traditional, egalitarian) to see how they may correspond with parental communication. We also limited the sample to parents of 3- to 6-year old

children to be consistent with prior research on parenting styles (Baumrind, 1996), but parenting dynamics may evolve as children get older; thus, additional research is required to investigate parenting behavior in more developed family systems. Finally, our cross-sectional research design only allowed us to examine associations, rather than aiming to establish more causal relationships, among the studied variables. Due to the nature of interdependent relationships, it is reasonable to assume that mutual influences among inter-parental similarity or dissimilarity and marital characteristics exist.

In light of our findings, future research should continue to look at how spouses parent together and how their coparenting relationship is associated with their marital relationship. Beyond satisfaction and appraisals of a partner's parenting, variables such as commitment, stability, and openness may be related to the coparenting relationship. Future studies should also consider children's characteristics, such as age (e.g., infants, adolescents) and gender, to capture possible variations in parental communication with children over time and with boys versus girls. In addition, future research may benefit from incorporating other theoretical perspectives, such as social cohesion theory (Kenny, 1998) and assortative mating theory (Brehm, 1992) to discern whether spouses with similar parenting beliefs and behaviors are attracted to each other because of their similarity or if they develop similar actions through interaction over time. Finally, future research should employ longitudinal designs to further look into the mutual influences of the interdependence across family subsystems and examine the causal directions of the paths suggested in our model. Such research will further explore the mutual ways in which inter-parental variables and marital characteristics shape one another and will advance our understanding about the interdependence investigated in this study.

Conclusion

The current study provides theoretical and operational foundations to ground future investigations of the interdependence that exists between mothers' and fathers' parental communication and the implications it has for their marital relationship. Although our findings point to similarity of parenting style as an important predictor of marital outcomes, they also imply that establishing interdependence in the coparenting relationship may be a dynamic and complex process. Our findings suggest that parents are similar in terms of parental control, but that they may differ in terms of their perceived parental responsiveness. In general, spouses are more satisfied with their marriage and rate their spouse's parenting behavior more positively when it is similar to their own, especially in terms of their observed parental communication. Taken together, these results highlight the interdependence that exists between mothers and fathers in terms of their parenting behavior and the importance of consistent parenting for promoting positive relational outcomes.

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