

The Role of Reflective Functioning in Predicting Marital and Coparenting Quality

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Abstract Reflective functioning (RF) is a measure of mentalization—the capacity to think about one’s own and others’ thoughts and feelings and to understand the connections between mental states and behaviors. Previous research indicates a decline in marital quality across the transition to parenthood, and some studies have found that parents are less happy than non-parents. Thus, researchers have called for research into possible moderators of these patterns. RF may help couples navigate this transition by more easily taking each other’s (and the infant’s) perspective and understanding each other’s behaviors. Much of the research on RF has focused on mothering behavior; research has not yet examined associations between RF and other family interactions. We examined associations between RF and marital and coparenting quality for both wives and husbands. Reflective functioning was coded from Adult Attachment Interviews conducted during pregnancy. We assessed marital quality at 3.5 months, and coparenting quality at 13 months, after the birth of the target child. Wives’ higher RF was associated with higher levels of positive—and lower levels of negative—marital and coparenting interactions. Wives who were better able to

reflect on their early experiences with their parents were involved in marital interactions that were more positive and supportive and less conflicted and undermining. Husbands’ RF did not predict marital or coparenting quality. These findings highlight the importance of reflective functioning in understanding family functioning.

Keywords Reflective functioning · Coparenting · Marital quality · Family studies · Transition to parenthood

Introduction

Reflective functioning (RF) is a measure of mentalization—the capacity to think about one’s own and others’ thoughts and feelings and understand the connections between mental states and behaviors (Slade 2005). RF was originally developed to help understand the intergenerational transmission of attachment (Steele and Steele 2008), but its use has expanded to understand parental behavior (e.g., Grienberger et al. 2005; Rosenblum et al. 2008) and child outcomes (e.g., Benbassat and Priel 2012; Steele and Steele 2008). However, nearly all of the research to date on the associations between RF and parenting behaviors has focused on mothering in the dyadic context. Research has not yet examined associations between RF and other family interactions. Researchers are increasingly interested in not only how mothers and fathers individually parent the child but also how they interact with *each other*.

The transition to parenthood can be both incredibly gratifying and incredibly stressful for parents. Marital satisfaction often declines following the birth of a child (Twenge et al. 2003), and some studies find lower levels of

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well-being in parents than in nonparents (Evenson and Simon 2005). However, the associations between parenthood and both marital satisfaction (Twenge et al. 2003) and well-being (Nelson et al. 2014) are moderated by factors that make this transition easier or more difficult (e.g., SES, infant temperament). For example, parents with secure attachment styles (Belsky and Isabella 1985) and couples with better interpersonal problem-solving skills (Hatton et al. 2010) fare better across this transition. It may be that reflective functioning—which helps individuals take others' perspective and understand their behaviors—also helps parents navigate this transition to parenthood and their new roles. As part of navigating this transition, parents must learn not only how to behave toward their new infant but also learn how to interact with each other in new ways (Cox 1985). The parenting behaviors and family patterns that emerge during this transition often become established by the end of infancy, and these patterns may remain stable across childhood (Holden and Miller 1999). Thus, understanding the factors that predict parent interactions during infancy may help identify families at risk for developing problematic interaction patterns across childhood. There are two primary ways to examine how parents interact: marital interactions and coparenting (i.e., “an enterprise undertaken by two or more adults working together to raise a child for whom they share responsibility;” Talbot and McHale 2004; p. 192) interactions.

Marital and coparenting interactions overlap in that both constructs assess how couples interact with one another, but marital quality is an inherently dyadic construct—even when measured in a triadic context with the child present. Alternately, coparenting is inherently a family-level construct—even when the child is not physically present in the interaction (Gable et al. 1992; McHale and Irace 2011). Research has demonstrated that coparenting and marital quality are distinct—both in their predictors (McHale 1995) and their outcomes (e.g., McHale and Rasmussen 1998); however, both constructs are associated with both parenting quality (Erel and Burman 1995) and child outcomes (Mangelsdorf et al. 2011)—even in infancy (e.g., Benzies et al. 2004; McHale and Rasmussen 1998). Thus, it is important to understand the factors that predict high quality couple interactions.

RF is typically assessed from either an interview about an individual's early experiences with caregivers (Adult Attachment Interview, AAI; George et al. 1985) or from an interview or questionnaire about the parent's relationship with their child (Aber et al. 1985; Luyten et al. 2017). The RF scale was originally developed for use with the AAI, but it is also often used with the Parent Development Interview (PDI) which asks parents to reflect on their own and their child's emotional experiences (Aber et al. 1985). It is important to note that although reflective functioning can be

assessed by a variety of interviews and questionnaires, the construct is thought to be an ability or capacity that predicts the way that one thinks about mental states relevant to *both* early *and* current attachment relationships (Slade 2005).

Research has found that reflective functioning assessed in the context of early caregiving experiences—using the AAI—is associated with parenting behaviors (see Camoirano 2017 for a review), including mind-mindedness (Arnott and Meins 2007) and maternal sensitivity (Ensink et al. 2016). Additionally, reflective functioning (assessed in the context of the parent-child relationship) is associated with fewer atypical maternal behaviors (Grienberger et al. 2005), higher quality caregiving (Suchman et al. 2010), increased tolerance of infant distress (Rutherford et al. 2013), and maternal sensitivity (Rosenblum et al. 2008). Reflective functioning is thought to predict parenting quality because parents high in RF understand that their child's behaviors are a result of underlying emotion states, goals, and intentions (Grienberger et al. 2005). Parents are thus able to respond to their child's internal experiences rather than simply responding to his or her observable behaviors (Fonagy and Target 1997; Slade 2006).

Reflective functioning may predict coparenting and marital quality for many of these same reasons. Reflective functioning involves both cognitive and emotional resources (Sharp and Fonagy 2008). Spouses must be able to cognitively take the other's perspective and also tolerate the other's emotions. Partners who are high on RF are likely to make an effort to understand their spouse's behaviors in terms of underlying mental states (Benbassat and Priel 2015; Fonagy and Target 1997; Grienberger et al. 2005; Sharp and Fonagy 2008; Slade 2006). For example, a wife high on RF will realize that her husband is being sullen, not because he is just trying to be difficult, but because he had a stressful day (Allen et al. 2008). Reflective functioning allows individuals to both anticipate others' reactions and make sense of their behaviors (Gergely and Unoka 2008). These on-line processes likely help spouses interact more positively with one another. These positive parental behaviors may also impact how children behave during family interactions. Parents who can more easily take another's perspective and interact positively with their partner may have children who are more positive and/or compliant.

Reflective functioning involves aspects of both psychological insight and perspective-taking (Slade 2005)—both of which have been linked to higher quality marital and coparenting interactions. Perspective-taking is associated with more positive marital adjustment (Long and Andrews 1990) and closer, more cooperative relationships between partners (Schutte et al. 2001). Similarly, ego development—which includes perspective-taking and psychological awareness—is associated with more positive coparenting experiences (van Egeren 2003). Relatedly, Stright and Bales

(2003) reported that parental education was associated with higher quality coparenting and speculated that cognitive skills related to perspective-taking may partially explain the link. Finally, Philipp (2012) described a treatment program *Reflective Family Play* which enhances parental reflective functioning in order to help parents coparent more effectively. The focus of the intervention is on helping parents focus on the child's feelings and motivations but also on encouraging couples to reflect together on their interactions. Although the article describes two case studies in which the treatment program helped couples coparent more effectively, there is not yet research evidence indicating a link between reflective functioning and coparenting quality.

Nearly all of the research to-date on reflective functioning has exclusively studied mothers (see Camoirano 2017 for a review); the research on fathers' RF is both limited and somewhat inconsistent. Through the London Parent-Child Project, researchers found that both mothers' and fathers' RF (AAI-RF) predicted infant attachment security at 12 months (Fonagy et al. 1991) and fewer child behavior problems at 5 years (Steele and Steele 2008). RF (assessed using the AAI) was also associated with both mothers' and fathers' mind-minded comments at 6 months (Arnott and Meins 2007). Finally, fathers' (but not mothers') RF assessed using the PDI was associated with adolescent social competence (Benbassat and Priel 2012) leading researchers to propose that paternal RF may be particularly important during adolescence (Benbassat and Priel 2015). Alternately, Stover and Kiselica (2014) found no association between paternal PDI-RF and fathers' self-reported parenting.

In sum, we examined the associations between RF and marital and coparenting quality in infancy. Based on previous research and conceptually guided by the RF measure, we predicted that higher levels of maternal reflective functioning would be associated with higher quality marital and coparenting interactions. Given the limited (and mixed) findings related to paternal RF, our examination of fathers' RF was exploratory. In order to more fully understand these family interactions, we also examined whether RF was associated with child behavior (i.e., anger, enthusiasm, compliance) during a triadic (mother-father-child) interaction.

Method

Participants

This project was part of a longitudinal study of family systems and children's socioemotional development. One hundred and three families in a small Midwestern city participated in the first phase of a longitudinal research project. Participants were recruited through childbirth

education classes, local newsletters, and fliers posted around the community: in doctors' offices, grocery stores, restaurants, and similar public places. Ninety-seven families who participated in the first phase of the study also participated in the second phase 3.5 months after the birth of the child, and 64 families of these families also participated in a visit when children were 13 months old. Much of the attrition between the second and third phases was due to geographic relocation and unwillingness or inability of families who lived farther away to travel to the laboratory (previous assessments had been in the home). Families that did and did not participate in the third phase were not significantly different on any study variable. All couples were married ($N = 93$; 96%) or cohabiting ($N = 3$; 3%) at the time of the first visit. For ease of description, the terms wife/wives and husband(s) are used despite the fact that three couples were unmarried at the time of the first visit. Families received compensation for their participation in each phase.

All families in the study delivered healthy, full-term infants; 45 of these infants were female, and 52 were male. Sixty-two couples (64%) were first-time parents. Wives' age ranged from 19 to 42 years at the time of the first visit ($M = 29.19$; $SD = 4.52$). Husbands' age ranged from 21 to 64 years ($M = 31.15$; $SD = 6.88$). Participants were primarily Caucasian (83% of wives; 80% of husbands), and the majority had completed college or a higher level of education (88% of wives and 79% of husbands). Average family income was between \$51,000 and \$60,000.

Procedure

Time 1: Prebirth home visit

Couples were visited at their homes during the third trimester of the wife's pregnancy. Prior to the visit, each partner completed a demographic questionnaire. The Adult Attachment Interview (AAI; George et al. 1985) was administered separately to each partner during the home visit and later coded for RF. Additionally, couples were asked to separately fill out a measure of division of responsibility in the household. Couples then participated in a videotaped discussion of how they thought household responsibility was divided and how they would like for those responsibilities to be divided, and that discussion was coded for marital quality.

Time 2: 3.5-month lab visit

Families (husbands, wives, and infants) were again visited at their homes 3.5 months after the birth of their child. As in the prebirth visit, couples were asked to separately fill out a measure of division of responsibility in the household. The couples again discussed how they thought household

responsibility was divided and how they would like for those responsibilities to be divided. This discussion was coded for marital quality. Couples also participated in a triadic family interaction which was also coded for marital quality.

Time 3: 13-month lab visit

Families (husbands, wives, and infants) visited the lab when children were approximately 13 months old and participated in a family play session from which coparenting quality and child behavior were coded.

Measures

Time 1: Prebirth home visit

Demographics Each parent-to-be filled out a questionnaire about income and level of education. Wives' education, husbands' education, and family income were all correlated, all r 's > .33, all p 's < .005. Thus, a composite measure of socioeconomic status (SES) was created from these three variables.

Reflective functioning Reflective functioning (RF) was coded from the Adult Attachment Interview (AAI; George et al. 1985). The AAI is a semi-structured clinical interview focusing on childhood experiences. For the proposed study, AAIs were coded using the reflective functioning (RF; Fonagy et al. 1998) scale, which assesses an individual's capacity to acknowledge and understand their own and others' mental states. RF focuses on an individual's appropriate understanding and explanations of others' emotions and behaviors (Slade 2005). RF codes include four categories: an awareness of the nature of mental states (e.g., demonstrating understanding that mental states can be disguised), an effort to understand the mental states underlying one's own and others' behavior (e.g., describing the emotions that led to one's father being critical), a recognition of the developmental aspects of mental states (e.g., describing changes in mental states that occur with typical development), and mental states with respect to the interviewer (e.g., acknowledging that it must be hard for the interviewer to listen to an emotionally challenging story).

Reflective functioning is coded on a scale from -1 (bizarre) to 9 (high). AAI transcripts for husbands and wives were globally coded using the RF coding scheme. Fifteen percent of transcripts ($N = 20$) were double coded by a reliability coder. Both coders were trained by, and reliable with, H. Steele on the RF measure. Reliability was acceptable ($\gamma = .75$; ICC = .74), and coders were in agreement within one scale point on 90% of transcripts. Means and standard deviations for study variables are presented in Table 1.

Table 1 Descriptive statistics for study measures

Measure	Mean	SD	Min	Max
Wife reflective functioning	4.68	1.43	1.00	8.00
Husband reflective functioning	3.98	1.36	1.00	7.00
Discussion positive marital engagement (prebirth)	38.42	3.63	29.75	46.50
Discussion marital conflict (prebirth)	-7.51	2.72	-11.00	2.50
Discussion positive marital engagement (3.5 months)	30.14	6.34	16.50	49.00
Discussion marital conflict (3.5 months)	2.68	6.32	-10.00	17.00
Play positive marital engagement (3.5 months)	30.86	7.62	8.50	46.50
Play marital conflict (3.5 months)	5.74	3.50	3.00	21.00
Supportive coparenting (13 months)	12.27	2.92	7.00	19.25
Undermining coparenting (13 months)	6.21	2.07	4.00	14.50
Child anger (13 months)	2.23	1.10	1.00	5.00
Child enthusiasm (13 months)	4.95	1.29	2.00	7.00
Child compliance (13 months)	4.65	1.11	2.00	7.00

Marital discussion Husbands and wives independently completed a modified version of Cowan and Cowan's (1990) "Who Does What?" questionnaire (Schoppe-Sullivan et al. 2007). This modified questionnaire asked spouses about both how they think responsibility is divided in the household and how they would like for responsibility to be divided. The household responsibilities discussed included cleaning the home, paying bills, making financial decisions, and preparing meals. Each of these responsibilities was ranked by each parent on a 7-point scale (1 = she does it all, 7 = he does it all) for both "how it is now" and "how I would like it to be." Couples then came together and discussed their answers to the questionnaire; this discussion typically lasted between 10 and 15 min.

The marital discussion was coded by trained coders on twelve variables of marital quality (Frosch and Mangelsdorf 2001): engagement (involvement and partner-directed behaviors), Enjoyment (mutual exchanges of enjoyment), expression of positive affect (individual expressions of positive affect by each wife and husband), irritation (couple's expression of anger, hostility, and antagonism), expression of negative affect (individual expressions of negative affect by each wife and husband), cooperation (mutual participation in the task), balance (relative contribution of each spouse), sensitivity/support, conflict resolution, and global interaction quality. Variables were coded by two coders using 7-point scales (1 = low; 7 = high). Reliability scores using gamma (γ) ranged from .63 to 1.00 ($M = .88$). Consistent with previous use of this coding scheme (e.g., Frosch and Mangelsdorf 2001), two composites were created. Positive engagement was computed by

adding engagement, enjoyment, husband and wife positive affect, cooperation, balance, and global interaction quality ($\alpha = .88$). Marital conflict was computed by adding irritation, husband and wife negative affect and subtracting sensitivity and conflict resolution ($\alpha = .80$). Positive engagement and marital conflict were negatively correlated, $r(92) = -.59, p < .001$ (see Table 2).

Time 2: 3.5-month lab visit

Marital quality The marital discussion was identical to the prebirth marital discussion except that the current division of responsibility measure also included questions about division of labor regarding care of the infant. Husbands and wives also participated in a family play session with their infants. Families were instructed to play together with a colorful jungle gym with moveable parts. Marital interaction during this interaction was coded for approximately five minutes.

The discussion of division of responsibility was coded for the same twelve variables of marital quality as the prebirth marital discussion, and the family play session was coded for ten of those variables (excluding sensitivity/support and conflict resolution). Reliability scores ranged from $\gamma = .65$ to $.97$ ($M = .76$). Two scales were computed for both the discussion and the play session: positive engagement ($\alpha = .91$ for the discussion and $.95$ for the play session) and marital conflict ($\alpha = .93$ for the discussion and $.93$ for the play session). Correlations between individual variables of spouse's behavior in the discussion and play session were low to moderate (r 's ranged from $.15$ to $.42, M = .31$), and thus the composites were not combined. Thus, four variables were used to examine marital quality at 3.5 months: discussion positive engagement, discussion marital conflict, play positive engagement, play marital conflict. Intercorrelations between these composites ranged from $\pm .18$ to $.51$ (see Table 2).

Time 3: 13-month lab visit

Coparenting quality Coparenting quality was assessed during a triadic family interaction filmed in the lab. During the first 10 min of the interaction, families were given three sets of toys—a shape sorter, stacking rings, and blocks—and were asked to play with the toys in a set order. Then, in the second segment of the interaction, families were given a box containing many more toys and were given five more minutes to play with those toys. Families were then instructed to help their child clean up the toys. The interaction was videotaped, and coparenting quality was coded separately for the first and second halves of the interaction.

Table 2 Intercorrelations between study measures

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Wife RF ^a	—												
2. Husband RF ^a	.05	—											
3. Prebirth disc. positive marital engagement ^a	-.11	.01	—										
4. Prebirth disc. marital conflict ^a	.06	.04	-.59***	—									
5. Disc. positive marital engagement ^b	.19 [†]	.19 [†]	.38***	-.27*	—								
6. Disc. marital conflict ^b	-.14	.04	-.12	.38***	-.44***	—							
7. Play positive marital engagement ^b	.28**	.13	.17	-.20 [†]	.37***	-.33**	—						
8. Play marital conflict ^b	-.23*	-.06	-.29**	.34***	-.18 [†]	.32**	-.51***	—					
9. Supportive coparenting ^c	.29*	.08	.07	-.10	.26*	.01	.32**	-.20	—				
10. Undermining coparenting ^c	-.33**	.11	.09	.07	-.10	.19	-.33**	.40**	-.51***	—			
11. Child anger ^c	-.12	.02	.09	-.13	.18	.02	-.23 [†]	.35**	.02	.13	—		
12. Child enthusiasm ^c	.10	-.07	-.01	-.00	-.03	.17	.33**	-.23 [†]	-.06	-.06	-.32**	—	
13. Child compliance ^c	.09	.10	-.01	-.23	.05	.03	.12	-.24*	.10	-.19	-.38**	.24 [†]	—
14. SES ^a	.31**	.31**	.01	-.09	.13	-.23*	.09	-.17 [†]	.16	-.22 [†]	-.24 [†]	.04	.10

Note: Partial correlations controlling for SES are presented above the diagonal; bivariate correlations are presented below the diagonal

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

^a assessed prebirth

^b assessed at 3.5 months

^c assessed at 13 months

Scores were averaged across the two halves. The interaction was coded based on scales developed by Cowan and Cowan (1996) and adapted and used in several other research studies (e.g., Schoppe et al. 2001; Schoppe-Sullivan et al. 2007). The scales assess coparenting at the level of the marital unit; thus, there were not separate coparenting scales for husbands and wives. The interaction was coded by trained coders using eight 5-point scales (1 = very low; 5 = very high) to assess coparenting quality: pleasure, warmth, cooperation, interactiveness, displeasure, anger, coldness, and competition (see Schoppe et al. 2001). Coders overlapped on 38% of the tapes, and gamma coefficients ranged from .70 to .98 ($M = .84$). Consistent with previous research (Schoppe et al. 2001), two scales were created. Supportive coparenting ($\alpha = .90$) was computed by summing pleasure, warmth, cooperation, and interactiveness. Undermining coparenting ($\alpha = .76$) was computed by summing displeasure, anger, coldness. Competition was not included in the undermining coparenting composite because the alpha was much lower ($\alpha = .67$) when competition was included.

Child behavior Three aspects of child behavior—anger, enthusiasm, and compliance—were also coded from the family interaction (Paley et al. 2000). Anger assessed the amount of anger that the child shows during the interaction toward both parents and objects (e.g., toys). Enthusiasm reflected the child's level of interest, eagerness, and confidence during the interaction. And compliance measured how much the child listened to parents' suggestions and responded to parents' requests in a pleasant and cooperative manner. Reliability between coders ranged from $\gamma = .74$ to $.94$ ($M = .82$).

Data Analyses

Preliminary analyses were conducted to examine possible covariates and intercorrelations between study variables. Next, partial correlations—controlling for covariates—were conducted between wives' and husbands' RF and other study variables (i.e., marital quality, coparenting quality, child behavior). Finally, regression analyses were conducted to further examine the contributions of wives' and husbands' RF to both marital and coparenting quality and to control for appropriate covariates.

Results

Descriptives for all variables of interest are reported in Table 1. Correlations between SES and key study variables (i.e., reflective functioning, play marital quality, discussion

marital quality, coparenting, child behavior) were examined (see Table 2). Statistical significance was set at the .05 level. SES was significantly correlated with both wives' and husbands' RF and with discussion marital conflict. SES was marginally correlated with play marital conflict, undermining coparenting, and child anger (see Table 2). Thus, SES was included as a covariate in all further analyses. First-time parents did not differ from experienced parents on any variable other than child compliance, $t(62) = 2.09$, $p = .04$. Children of first-time parents were more compliant than children of parents who already had children. Husbands' age was not significantly correlated with any study variable, and wives' age was correlated only with discussion positive marital engagement at 3.5 months, $r(93) = .22$, $p = .03$. The length of the couple's relationship was not correlated with any study variables, all p 's $> .10$. As discussed elsewhere (Jessee et al. 2016), wives ($M = 4.68$, $SD = 1.43$) were significantly higher on RF than were husbands ($M = 3.98$, $SD = 1.36$, $t[145] = 2.53$, $p < .001$, paired $t[62] = 2.43$, $p < .001$). Husbands' and wives' RF were not correlated, $r(93) = .05$, $p = .66$; RF scores within couples were independent. Paired-samples t -tests indicated that discussion positive engagement was significantly lower ($t(91) = 13.15$, $p < .001$) and discussion marital conflict was significantly higher ($t(91) = -16.73$, $p < .001$) at the 3.5-month assessment than at the prebirth assessment demonstrating a decline in marital quality across the transition to parenthood.

Associations Between RF and Marital and Coparenting Quality

Partial correlations between reflective functioning and marital and coparenting quality (controlling for SES) are presented in Table 2 (above the diagonal). When wives were higher on RF, couples had more positive marital engagement, $r(89) = .29$, $p = .01$, and less marital conflict, $r(89) = -.21$, $p = .04$, during the family play session at 3.5 months. Wives' reflective functioning was also associated with more supportive coparenting, $r(60) = .26$, $p = .04$, and less undermining coparenting, $r(60) = -.28$, $p = .03$, at 13 months. Husbands' reflective functioning was not correlated with any of the coparenting or marital quality variables, all p 's $> .10$.

In order to get a clearer picture of these associations, regression analyses were conducted for the four variables associated with maternal reflective functioning (i.e., play positive marital engagement, play marital conflict, supportive coparenting, undermining coparenting). SES was entered in the first step as a control variable. For analyses involving marital quality at 3.5 months, prebirth positive marital engagement and marital conflict were entered in the second step to examine the contribution of reflective

functioning above and beyond earlier marital quality. Given that there could be no assessment of coparenting quality before the birth of the child, we obviously could not control for prebirth coparenting quality. Wives' and husbands' RF were both entered in the final step.

The model predicting play marital engagement was significant, $F(5,78), = 2.30, p = .05$, and wives' RF predicted play marital engagement above and beyond prebirth marital quality (see Table 3). The model predicting play marital conflict was also significant, $F(5,78), = 4.61, p < .001$, and wives' RF significantly contributed to this model (see Table 3). The model predicting supportive coparenting was not significant, $F(3,54), = 1.75, p = .17$, given that neither SES nor husbands' RF contributed to the model (both p 's $> .60$). However, wives' RF significantly predicted supportive coparenting, $\beta = .28, p = .04$ (see Table 4). Finally, the model predicting undermining coparenting was significant, $F(3,54), = 3.64, p = .02$, and wives' RF significantly predicted undermining coparenting (see Table 4). In three of the four models, wives' RF was the only significant predictor in the final step. In the fourth model—predicting play marital conflict—prebirth marital conflict continued to be a significant predictor in the final step. Husbands' RF did was not significant in any of the models.

Associations Between RF and Child Behavior in Triadic Interactions

When parents had more positive marital engagement during the play session at 3.5 months, children demonstrated marginally less anger and significantly more enthusiasm at 13 months, and when parents had higher levels of marital conflict at 3.5 months, children demonstrated significantly more anger and marginally less enthusiasm and compliance at 13 months (see Table 2). However, neither wives' nor husbands' RF were associated with child anger, enthusiasm, or compliance, all r 's $\leq .10$, all p 's $> .45$ (controlling for SES; see Table 2).

Discussion

Our purpose in this investigation was to examine associations between RF and marital and coparenting quality. Our results revealed that maternal RF was associated with both marital and coparenting quality. In particular, (controlling for SES) higher levels of maternal RF were associated with more positive engagement and less conflict during a family play session at 3.5 months (even when controlling for prebirth marital quality) and more support and less under-

Table 3 Predictors of play marital quality at 3.5 months

Predictor	Positive marital engagement			Marital conflict		
	ΔR^2	β	t	ΔR^2	β	t
<i>Step 1</i>						
SES	.006	.077	.703	.020	-.142	-1.301
<i>Step 2</i>						
Prebirth positive marital engagement	.041	.052	.380	.159**	-.160	-1.260
Prebirth marital conflict		-.168	-1.216		.282	2.200*
<i>Step 3</i>						
Wives' RF	.081*	.291	2.602*	.049†	-.232	-2.205*
Husbands' RF		.103	.924		-.057	-.540

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 Predictors of coparenting quality at 13 months

Predictor	Supportive coparenting			Undermining coparenting		
	ΔR^2	β	t	ΔR^2	β	t
<i>Step 1</i>						
SES	.013	.116	.873	.060†	-.246	-1.897
<i>Step 2</i>						
Wives' RF	.075	.282	2.073*	.108*	-.280	-2.157*
Husbands' RF		.068	.504		.183	1.418

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

mining coparenting at 13 months. In comparison, fathers' RF was not significantly associated with marital or coparenting quality. Neither wives' nor husbands' RF were associated with children's behavior during the family play session at 13 months.

The associations between maternal RF and marital and coparenting quality were expected. RF is a measure of an individual's ability to understand the links between observable behaviors and the mental states underlying those behaviors (Slade 2005). Individuals high on RF have insights into their own and others' thoughts and feelings and make an effort to understand what is "going on" in others' minds (Slade 2005). Wives higher on RF are more able to take their husband's perspective, anticipate how he may respond to a particular situation, and understand why he is behaving in a certain way (Allen et al. 2008; Slade 2006) which may help spouses avoid conflict and interact more positively. Couples' marital engagement decreased—and their marital conflict increased—across the transition to parenthood which is consistent with other investigations (e.g., Twenge et al. 2003). However, given that wives' RF was associated with marital quality at 3.5 months—controlling for prebirth marital quality—RF may play a role in helping parents navigate this important transition.

The associations between wives' RF and marital and coparenting quality is consistent with other investigations showing that perspective-taking (Long and Andrews 1990; Schutte et al. 2001) and psychological awareness (van Egeren 2003) were associated with higher quality interactions and relationships between partners. Considering others in terms of their mental states (e.g., thoughts, desires, feelings) allows for more sensitive and proficient on-line responses during interactions—these wives may be less likely to undermine their spouse's autonomy or compete with their partner for the child's attention. Additionally, these women may also be better able to understand—and possibly take on—the joy their partners feel while interacting with their child.

The lack of associations between husbands' RF and marital and coparenting quality was somewhat surprising although previous research on paternal RF has been mixed (e.g., Benbassat and Priel 2015; Stover and Kiselica 2014). There are several possible explanations for the lack of findings for husbands. First, several researchers have proposed that mothers' characteristics or mothers' parenting may be important predictors of fathers' behaviors (Grossman et al. 1988; Hawkins et al. 1993; Woodworth et al. 1996). This may be in part because mothers typically take on the role of primary caregiver, and fathers may follow the mother's lead in parenting matters (Coiro and Emery 1998; Doherty et al. 1998). Women have been described as the "architects of coparenting relationships" (Mangelsdorf et al. 2011; p. 48) in that their characteristics are thought to be

more influential on family-level interactions (e.g., van Egeren 2003). Further, Esbjørn et al. (2013) found that mothers', but not fathers', RF predicted children's anxiety and suggested that the mothers' influence within the family "rests in the domain of emotion, and the inner set of thoughts and feelings concerning relationships" (p. 402). And, indeed, our results support the idea that wives' characteristics and/or behaviors may play a larger role in how couples interact.

Another possibility is that husbands' RF is truly not an important predictor of family interactions during infancy. Although many investigations have indicated that fathers can be equally as adept at parenting as mothers (Lewis and Lamb 2003), their reflective capabilities may not predict these family-level interactions. It may be that other paternal characteristics (e.g., personality, marital satisfaction) are more important predictors of family interactions during infancy. Benbassat and Priel (2012) proposed that paternal RF may be especially important during adolescence. Whatever the reason, our investigation does not indicate that husbands' RF predicts marital or coparenting behavior in infancy.

Interestingly, reflective functioning did not predict discussion marital interaction (which was in the dyadic context) either prebirth or at 3.5 months. Both husbands' and wives' reflective functioning were marginally correlated with positive marital engagement during the discussion at 3.5 months, but the association was no longer significant when SES was accounted for. It may be that reflective functioning is more important in triadic interactions in which partners must alternate between thinking about their spouse's and their child's mental states. Additionally, the dyadic interaction required participants to discuss disagreements; whereas the triadic interaction was a play session. Thus it could be the requirements of the task—rather than dyadic or triadic context—that impacted the result. During more challenging or potentially conflicted interactions other characteristics (e.g., personality) may play a more important role in predicting interaction quality.

Reflective functioning did not predict child's behavior in the 13-month family play session. Some previous investigations have found associations between parental RF (or related constructs) and behavior of both older children and adolescents (Benbassat and Priel 2012; Ha et al. 2011) and infants and younger children (Meins et al. 2013; Smaling et al. 2017; Steele and Steele 2008). However, in all of these investigations, child behavior was assessed using questionnaire(s). It may be that a relatively brief, low-stress family play session does not reveal the types of child behaviors that are influenced by parental reflective functioning.

Although not the focus of this investigation, we found that RF was higher in parents of higher socioeconomic

status. This is consistent with several previous investigations of RF (Bouchard et al. 2008; Fonagy et al. 1998; Steele and Steele 2008) but inconsistent with another (Fonagy et al. 1991). Fonagy et al. (1991), however, did not report the strength of the association between RF and education or income, so it is possible that the associations were comparable in strength to those in our investigation. Benbassat and Priel (2012) reported that higher parental education was associated with higher levels of RF for both mothers and fathers. These findings make intuitive sense in that formal education—or simply coming from a family of higher socioeconomic status—likely provides individuals with the cognitive or psychological resources to think more deeply about what is going on in others' minds. Additionally, given that the AAI is an interview, it is possible that verbal ability or IQ may play a role in how participants communicate; however, several studies (e.g., Bakermans-Kranenburg and van IJzendoorn 1993) have found that IQ is unrelated to AAI classification or RF score (Steele and Steele 2008).

Strengths and Limitations

Several key strengths of our study are its examination of several types of marital interactions quality in multiple family contexts (i.e., dyadic marital interaction, triadic family interaction) and its examination of RF and couple interactions for both husbands and wives at multiple time points. However, several limitations should also be noted. First, the correlational nature of our analyses does not allow conclusions about the causal role of RF in predicting couple interactions. However, Philipp (2012) described a treatment, Reflective Family Play, which encourages parental RF in order to help parents coparent more effectively. This was a case study, and thus should be interpreted with caution, but it indicates that RF *may* play a causal role in coparenting interactions. Additionally, the current sample primarily Caucasian, middle class, and well-educated. Future studies should examine associations between RF and marital and coparenting quality in more diverse samples. It may be that RF is more or less predictive in different samples.

Finally, the current investigation used the AAI—which focuses on an individual's early experiences with caregivers—to assess reflective functioning. As described above, there are a variety of ways to assess RF including the Parent Development Interview (Aber et al. 1985) which focuses on the parent's relationship with the child, the more recent Parental Reflective Functioning Questionnaire (Luyten et al. 2017), and child- vs. self-focused RF (Borelli et al. 2016; Suchman et al. 2010). Although RF is often conceptualized as an ability or way of thinking that would generalize across relationships, this idea has not been firmly established. Relatedly, the current investigation assessed RF before the birth of the target child and—for most families in the study

—before the transition to parenthood. Given all of the changes that accompany the transition to parenthood, it is possible that levels of RF may change across this transition. It is not clear whether and how prebirth RF (typically assessed using the AAI) is associated with parental RF (assessed in the context of the parent-child relationship; Camoirano 2017). Thus, future research should examine how other measures of RF (assessed both before and after the birth of the child) are associated with family-level interactions. It would also be interesting to assess RF in the context of other family relationships (e.g., couple/marital reflective functioning).

In sum, our investigation found that wives' RF was associated with marital and coparenting interactions at both 3.5 and 13 months. Wives who were better able to reflect on their early experiences with their parents were involved in interactions that were more positive and supportive and less conflicted and undermining. These findings point to the importance of reflective functioning in understanding family functioning and also indicate that future research should examine whether targeting reflective functioning—particularly wives' reflective functioning—may help families across the transition to parenthood.

Author Contributions A.J.: coded reflective functioning; analyzed data, wrote the paper. S.C.M.: designed the study, supervised coding and analyses; provided feedback on the paper. M.S.W.: aided in designing the study, collected data. S.S.S.: aided in designing the study, collected data. A.S.: aided in designing the study, collected and coded data. G.L.B.: aided in designing the study, collected data.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. IRB approval was received from the University of Illinois.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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