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Mothers' and Fathers' Quantitative and Qualitative Parenting in Relation to Children's Emotional Adjustment: A Between- and Within-Family Investigation

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This longitudinal study of Australian families ($n = 1,884$, from age 6–12) examined how fathers' and mothers' quantitative involvement (time spent on childcare) and qualitative involvement (specific parenting behaviors) relate to children's emotional adjustment development. We used dynamic structural equation modeling to disentangle stable between-family differences from within-family fluctuations in qualitative parenting and emotional adjustment, allowing us to investigate the direction of effects between parents and children. Because fathers have been theorized to contribute uniquely to emotional adjustment development, we examined differences between mothers and fathers and the interplay between parent and child sex. We further examined whether between-family differences in quantitative involvement, operationalized as joint (total) and relative (one parent does more) involvement, predict qualitative parenting behaviors and emotional adjustment and moderate the within-family interplay between them. Results revealed between-family correlations of qualitative involvement with emotional adjustment. Evidence for significant average within-family effects was limited to a parenting effect of maternal warmth, and several child effects, which indicated that emotional adjustment evokes changes in parenting. However, parenting effects varied substantially across families, especially for fathers. Between-family differences in quantitative involvement explained some of these differences. When joint quantitative involvement was higher, both parents engaged in more desirable qualitative parenting. When mothers were relatively more involved than fathers, fathers displayed less desirable qualitative parenting, and children were less well adjusted. There was some limited evidence that within-family predictive effects were moderated by quantitative involvement, particularly relative involvement. These findings suggest that all family members benefit from a more equal childcare distribution.

Keywords: involvement, emotional adjustment, fathers, parenting, longitudinal



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Emotional adjustment is defined as the absence of internalizing symptoms and emotional dysregulation (Goodman, 2001). It is integral to social competence, academic achievement, and mental health (Gross, 2013). Ample research has demonstrated associa-

tions between children's emotional adjustment and parental involvement—both quantitative involvement (the amount of time parents spend caring for their child) and qualitative involvement (specific parenting behaviors). Nevertheless, the existing literature has two major shortcomings. First, although it is widely acknowledged that quantitative and qualitative involvement are both relevant (Fagan, Day, Lamb, & Cabrera, 2014; J. Pleck, 2004), these dimensions are rarely investigated together, let alone in interaction (Craig & Mullan, 2011; Fagan et al., 2014). The present study overcame this limitation by investigating both qualitative and quantitative involvement, and the interplay between them, in relation to children's emotional adjustment.

Second, although fathers have been theorized to play a unique role in emotional adjustment development (Paquette, 2004), they are not consistently included in research (Fagan et al., 2014). Consequently, little is known about mothers' and fathers' joint and unique contributions to emotional adjustment development. The present study overcame this limitation by incorporating both parents. We used sophisticated methods to examine how joint and relative quantitative involvement at age 6 moderate the longitudinal interplay between mothers' and fathers' qualitative parenting

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and children's emotional adjustment from the age of 6 to 12 years. We thus obtained a more comprehensive and nuanced understanding of how fathers' and mothers' involvement relate to children's emotional adjustment development.

Qualitative Parenting and Emotional Adjustment

Early developmental research focused on parental socialization, the notion that parents shape child development through qualitative parenting dimensions, such as responsiveness and demandingness (Maccoby & Martin, 1983). Substantial evidence indicates that responsiveness, which we operationalized in terms of warm and supportive parenting behaviors, is positively associated with children's emotional adjustment (Morris, Silk, Steinberg, Myers, & Robinson, 2007). Therefore, we hypothesized that parental warmth would be positively associated with children's emotional adjustment (H_{1a}).

The literature linking demandingness and emotional adjustment is less conclusive (Morris et al., 2007). Demandingness encompasses parenting behaviors related to rule setting and enforcement. Some of these behaviors help children meet societal expectations, whereas others are overly restrictive and interfere with children's autonomy needs (Barber & Xia, 2013). We examined two aspects of demandingness: consistency, the extent to which consequences for transgressions are clear and enforced, and inductive reasoning, explaining the reasons for rules and punishments. As prior research found positive correlations between consistency and emotional adjustment (Brand, Crous, & Hanekom, 1990), we also hypothesized to find these positive associations (H_{1b}). There is less evidence for links between inductive reasoning and emotional adjustment. Given that inductive reasoning promotes the internalization of parental expectations, including display rules for emotions (Grusec & Goodnow, 1994), we hypothesized that it would also be positively related to emotional adjustment (H_{1c}).

Finally, negative parenting, which we operationalized as parental anger, is a qualitative parenting behavior negatively associated with children's emotional adjustment (Chang, Schwartz, Dodge, & McBride-Chang, 2003; Eisenberg et al., 1999). Parental anger negatively impacts children's emotional adjustment (Scaramella, Sohr-Preston, Mirabile, Robison, & Callahan, 2008) because it is upsetting and because anger reflects poor parental emotion regulation, which serves as a model for children (Chang et al., 2003). We thus hypothesized that anger would be negatively related to emotional adjustment (H_{1d}).

Parent or Child Effects?

Contemporary theory views the family as a dynamic system, whose members reciprocally influence one another (Kerr, Stattin, & Özdemir, 2012). Nevertheless, child effects on parents are not routinely investigated (Flouri, 2010). As most of the research cited in support of H_{1a-d} is cross-sectional, it could also support child effects. We thus hypothesized that emotional adjustment positively predicts warmth, consistency, and inductive reasoning and negatively predicts anger (H_{2a-d}). These predictions are in line with studies that specifically investigated child effects, which found that maladjustment elicits less warmth and more negative parenting (Gadeyne, Ghesquière, & Onghena, 2004). There is also evidence for bidirectional positive links between parental consistency and

emotional adjustment (Lengua & Kovacs, 2005). The adolescent literature provides additional evidence that emotional adjustment positively predicts parental support (Otterpohl & Wild, 2015; Van der Giessen, Branje, & Meeus, 2014) and negatively predicts negative parenting (Wijsbroek, Hale, Raaijmakers, & Meeus, 2011). This suggests that parents respond positively to emotional adjustment and negatively to maladjustment.

Analyzing the Direction of Effects

Methods commonly used to examine direction of effects between parents and children have been criticized for failing to disentangle between-family differences from within-family predictive effects (Hamaker, Kuiper, & Grasman, 2015). This limitation is addressed by the random-intercept cross-lagged panel model (Hamaker et al., 2015) and dynamic structural equation modeling (DSEM), a multilevel generalization of this model (Asparouhov, Hamaker, & Muthén, 2018). Several studies have reexamined the direction of effects between parents and children using these methods, but mostly in adolescent samples. One such study found that effects of parenting on adjustment that emerged using classical methods became nonsignificant when stable between-family differences were taken into account (Keijsers, 2016). Another study similarly found that associations between maternal and paternal qualitative parenting and adolescents' emotional adjustment were mostly explained by between-family-level correlations. The remaining predictive effects consisted primarily of child effects, not parenting effects (Van Lissa, Keizer, Van Lier, Meeus, & Branje, 2019). The authors theorized that this finding was reflective of the relative equality of parent-child relationships in adolescence. If this is correct, we should expect more evidence of parenting effects in the present, younger sample. However, these prior studies demonstrate that applying these new methods changes the pattern of results in unexpected ways. Consequently, it is impossible to make specific predictions about the pattern of between-family correlations and within-family predictive effects. For now, we will assume that H_{1a-d} and H_{2a-d} apply at both the between- and within-family level.

Differences Between Mothers and Fathers

The notion that fathers should share child-rearing responsibilities with mothers has become commonplace in the Western world (E. H. Pleck & Pleck, 1997). Consequently, researchers have come to study qualitative involvement along the same dimensions for mothers and fathers (Maccoby & Martin, 1983; J. Pleck, 2004). Fathers' qualitative involvement is associated with emotional adjustment, even after accounting for mothers (Flouri, 2010). Some research suggests that both parents influence children similarly but that effects might be stronger for mothers (Fagan et al., 2014; Lamb & Lewis, 2004). Others have argued that mothers and fathers might contribute through somewhat different mechanisms. Attachment relationships are grounded in a balance between warmth and security and exploration (Grossmann & Grossmann, 1998). Some have proposed that warmth is more central to mother-child attachment relationships, whereas father-child relationships can be construed as "activation relationships," with greater emphasis on exploration (Paquette & Dumont, 2013). By encouraging children to venture outside their comfort zone, fathers stimulate a

broad spectrum of emotions, which expands children's emotional repertoire and exercises their regulatory abilities (Bögels & Perotti, 2011; Flouri, 2010; Parke, 2000).

In line with this theory, research has found that mothers respond more warmly and supportively to emotional expression, whereas fathers are more demanding and punitive (Cassano, Perry-Parrish, & Zeman, 2007; Eisenberg et al., 1999). In adolescence, maternal warmth was a more salient socialization mechanism of emotional adjustment than maternal demandingness, whereas this pattern was reversed for fathers (Van Lissa et al., 2019). Similar differentiated associations were found for younger children's psychological adjustment (McDowell, Parke, & Wang, 2003). Finally, there is initial evidence that emotional adjustment is more negatively impacted by mothers' negative parenting compared to fathers (Chang et al., 2003), perhaps because negative parenting is somewhat incongruous with the warm "attachment" relationship typically expected of mothers. Based on this research, we hypothesized that emotional adjustment would be more strongly associated with maternal warmth and anger, and with paternal demandingness, operationalized as consistency and inductive reasoning (H_3).

Quantitative Involvement

Operationalizing Quantitative Involvement

Early fatherhood research primarily operationalized involvement in *quantitative* terms: father absence in divorced families and childcare sharing in dual-earner families (Lamb, Pleck, Charnov, & Levine, 1987). Quantitative involvement has been researched extensively in terms of the absolute amount of childcare provided (see J. Pleck, 2004). However, some have argued that the *division* of childcare tasks is more relevant for children's adjustment (e.g., Craig & Mullan, 2011; Keizer, van Lissa, Tiemeier, & Lucassen, 2019). The equity of the childcare distribution is associated with socioemotional development (Deutsch, Servis, & Payne, 2001). Moreover, an unequal distribution often implies that women perform a disproportionate share of the work (Craig & Mullan, 2011). This strains the marital relationship (Shockley & Allen, 2018) and erodes parenting quality, particularly for parents of difficult children (Shelton & Harold, 2008).

There are also methodological advantages to focusing on the distribution of childcare. Operationalizing quantitative involvement in terms of both parents' absolute involvement incurs a potential confound: Effects that appear to be due to fathers' greater involvement might be due to children receiving *more* total care (see Deutsch et al., 2001). This confound can be mitigated by estimating a latent mean and difference (McArdle, 2009). The latent mean reflects joint involvement—the total (average) amount of care provided to children—and the latent difference reflects relative involvement—the extent to which the mother is more involved than the father (i.e., the childcare distribution).

Main Effects of Quantitative Involvement

Effects on qualitative involvement. Time spent with children is associated with the quality of parenting behavior (Sabattini & Leaper, 2004). Indeed, more involved parents tend to experience greater parenting self-efficacy, possibly reflecting the effects of experience (Giallo, Treyvaud, Cooklin, & Wade, 2013). Further-

more, when both parents are more involved, they monitor each other's parenting behaviors to ensure that children are raised well (McLanahan & Teitler, 2014). Consequently, we hypothesized that greater joint involvement will positively predict both parents' desirable parenting behaviors (warmth, consistency, and inductive reasoning) and negatively predict parental anger (H_{4a-d}).

By the same reasoning, we hypothesized that greater differential involvement will positively predict the desirable parenting behaviors of the more involved parent and negatively predict those of the less involved parent (H_{5a-d} ; Sabattini & Leaper, 2004). However, there are also reasons to expect that greater differential involvement will be negatively associated with both parents' parenting quality and with children's emotional adjustment. Retrospective reports indicate that an unequal childcare distribution is associated with suboptimal parenting behaviors: increased authoritarian parenting in mothers and disengaged parenting in fathers (Sabattini & Leaper, 2004). One reason might be that parents are less able to monitor each other when they are not equally involved (McLanahan & Teitler, 2014). Furthermore, an unfair distribution of the demanding task of childcare strains the interparental relationship, interferes with sensitive parenting, and undermines child well-being (Davies & Cummings, 2006; Deutsch et al., 2001). When care is distributed equally, mothers are more satisfied (Phares, Fields, & Kamboukos, 2009), and the family system is more harmonious. Consequently, balanced coparenting is associated with greater parental warmth (Barnett, Deng, Mills-Koonce, Wiloughby, & Cox, 2008).

Effects on emotional adjustment. Bioecological theories posit that children require a certain amount of care; who provides it is somewhat flexible (see Bronfenbrenner, 1979). We therefore hypothesized that greater joint care should positively predict children's emotional adjustment (H_{6a}). Further, it has been argued that children feel less supported when one parent is relatively uninvolved than when both parents are equally invested in their well-being (Deutsch et al., 2001). We therefore predicted that greater relative involvement will negatively predict emotional adjustment (H_{6b}).

Interactions Between Involvement Quality and Quantity

Interactions between involvement quality and quantity largely have been overlooked in the parenting literature (Jaffee, Moffitt, Caspi, & Taylor, 2003). One notable exception is Feinberg's coparenting model (Feinberg, 2003). Coparenting refers to the ways parents relate to each other in the parenting role. Although the coparenting literature is typically invoked to describe child rearing in divorced families, it also holds insights for intact families. According to Feinberg, the "division of labor" in childcare, analogous to our operationalization of relative involvement, affects qualitative child-rearing behaviors and children's adjustment directly and moderates the link between these two constructs. Based on this insight, we might expect parents' quantitative involvement to moderate effects between qualitative parenting behaviors and emotional adjustment. As an example, parental anger might affect children's emotional adjustment differently when coming from a highly involved parent than from an absent parent. Conversely, children's poor emotional adjustment might elicit warmer responses from hands-on parents, who are attuned to the reasons for

these emotional troubles, than from out-of-touch parents, who might perceive maladjustment as a problem behavior that should be disciplined. Preliminary evidence indicates that interactions between involvement quality and quantity are indeed relevant. For instance, fathers' playful and caring involvement positively predicted preschoolers' emotional adjustment in school, but only when accompanied by a supportive coparenting relationship (Jia, Kotila, & Schoppe-Sullivan, 2012). Furthermore, the quantity of paternal school-related involvement interacted with paternal warmth to positively predict adolescents' academic achievement and behavioral adjustment (M.-T. Wang, Hill, & Hofkens, 2014). However, this literature is too limited to formulate specific hypotheses about moderating effects in the present study. We thus conducted an exploratory assessment of moderating effects of joint and relative quantitative involvement on the interplay between qualitative parenting behaviors and emotional adjustment.

Child Sex Differences

Child sex differences are considered to be an important covariate in the literature on parenting and emotional adjustment. Parents raise boys and girls differently, expressing more demandingness with girls (Pomerantz & Ruble, 1998; Van Lissa et al., 2019) and more anger with boys (Straus & Stewart, 1999). Furthermore, the same-sex parent is thought to play a stronger role in socialization (Bussey & Bandura, 1999). Finally, mounting evidence suggests that parental warmth is greatest in mother-daughter relationships and lowest in father-son relationships (see Van Lissa et al., 2019). We therefore hypothesized that parents would display more warmth, consistency, and inductive reasoning and less anger toward girls than boys (H_{7a-d}). We also predicted associations between qualitative parenting and emotional adjustment to be stronger between children and their same-sex parent (H_{8a-d}). Finally, although sex differences in emotional adjustment have been found in older children (Van Lissa et al., 2019), there is little evidence for such differences in young children (Else-Quest, Hyde, Goldsmith, & Hulle, 2006).

The Present Study

The present study examined associations between qualitative parenting behaviors and children's emotional adjustment and whether these associations are moderated by quantitative involvement. We aimed to make several contributions. First, by including both mothers and fathers, we can tease apart their common and unique roles in children's emotional adjustment development. Second, by incorporating both qualitative and quantitative measures of involvement, we can examine interactions between qualitative and quantitative involvement, which have been largely overlooked in prior work. Third, by disentangling stable between-family differences from dynamic within-family predictive processes, we can establish at which level associations occur and assess the within-family direction of effects between qualitative involvement and emotional adjustment. Finally, we examined child sex as a predictor of between-family differences and moderator of within-family effects.

Method

Participants

We employed data from the K-cohort of the Longitudinal Study of Australian Children (LSAC), Waves 2–5, which were collected by means of biannual home visits and self-report mail questionnaires from 2006–2012. Each wave was reviewed and approved by the Australian Institute of Family Studies Ethics Committee, which is a Human Research Ethics Committee registered with the National Health and Medical Research Council (Australian Institute of Family Studies, 2020). LSAC employed a clustered sampling design to obtain a representative sample of the Australian population. Complete details regarding the study design, sample, and procedure are available online (Australian Institute of Family Studies, 2020).

From the total sample (4,983 focal children at the first wave), we selected the 1,884 native Australian, nonminority, intact biological families that constituted our target population. Although minority or immigration status and family composition are important factors, they are beyond the scope of this study. At the first wave, children in our sample were approximately 6 years old, $M = 6.28$, $SD = .45$, and were 12 at the final wave ($M = 12.42$, $SD = .49$); on average, mothers were 34.89 ($SD = 4.71$) and fathers were 36.94 ($SD = 5.48$). Most families were dual-earner families, based on income from wages or enterprise ($N = 1,067$); the remainder were single-earner families ($N = 669$ father only, $N = 41$ mother only). The LSAC did not measure income as a continuous variable but as an ordered categorical variable. For fathers, the modal category was “\$26,000–\$51,999” ($N = 663$ fathers reported this value), and for mothers, “\$25,999 or less per year” ($N = 1,152$ reported this value).

Measures

Scale descriptive statistics, attrition (which ranged from 7–14% across respondents), reliability, and intraclass correlations are reported in Supplementary Table S1; scale correlations are provided in Supplementary Table S2. The difference in fit between structurally invariant models and metrically invariant models was smaller than .01 on all conventional fit indices: root mean square error of approximation, comparative fit index, and Tucker-Lewis index (see Supplementary Table S3). We thus deemed it defensible to assume metric measurement invariance (i.e., to assume that the factor loadings of each construct are the same across time points and respondents) and calculated mean scores for all study variables.

Qualitative involvement. Responsiveness and inductive reasoning were measured using the six-item warmth (e.g., “How often do you express affection by hugging, kissing and holding this child?”) and five-item inductive reasoning (e.g., “Talk it over and reason with this child when he/she misbehaved?”) subscales of the Child Rearing Questionnaire (Paterson & Sanson, 2001). Consistency and negative parenting were measured using the five-item consistency (e.g., “How often is this child able to get out of punishment when he/she really sets his/her mind to it?”; reverse coded) and six-item anger (e.g., “How often are you angry when you punish this child?”) scales developed by the Canadian National Longitudinal Survey of Children and Youth (Canada, 2000).

These self-report instruments used 5-point scales, ranging from *never or almost never* to *always or almost always*.

Quantitative involvement. Measures of quantitative involvement varied from wave to wave due to children's changing care needs (R. Wang & Bianchi, 2009). We used the first wave reports as an indicator of between-family differences in quantitative involvement. Both parents rated their involvement in four different childcare activities on five-item, 5-point scales ranging from *once a day or more* to *not at all* (e.g., "In the past month how often did you help this child brush his/her teeth?"; Baxter & Smart, 2011).

Emotional adjustment. Emotional adjustment was measured using the reverse-coded, five-item emotional distress subscale of the teacher-reported Strengths and Difficulties Questionnaire, on a 3-point scale from *not true* to *certainly true* (e.g., "Often unhappy, downhearted or tearful"; Goodman, 2001).

Strategy of Analyses

To address our research questions, we used dynamic structural equation modeling (DSEM; Asparouhov et al., 2018). In this approach, the variance in qualitative parenting behaviors and emotional adjustment is partialized into stable between-family differences (the mean level for that family across all measurement occasions) and within-family fluctuations (deviations from this family-specific mean). Intraclass correlations (Supplementary Table S1) for warmth, consistency, and anger were high, ranging from .60 to .64. This indicates that about 60% of the variance in these parenting behaviors is due to between-family differences. For inductive reasoning, they were notably lower, .46–.50. For emotional adjustment, they were even lower, $r = .25$.

Using DSEM allows us to determine whether associations exist at the between- or within-family level and to estimate the direction

of cross-lagged effects more accurately (Hamaker et al., 2015). Within-family-level cross-lagged effects are estimated for every individual family, and the average and variance of these within-family effects is estimated across all families. Any stable factors that might bias these within-family effects—such as the influence of socioeconomic status or neighborhood effects—are accounted for at the between level and reflected in the between-family-level correlations. To examine whether between-family-level variables moderate the within-family effects, we can include them as predictors of the family-specific within-family coefficients. In this way, we included joint and relative quantitative involvement and child sex as moderators of the within-family effects. See Figure 1 for a graphical representation of the model. We conducted separate analyses for the four qualitative parenting dimensions because a model including all four variables at once was too complex to estimate.

Analyses were conducted using Mplus 8.0 and the R package MplusAutomation; the tables and figure were created using tidySEM. All code, output, and supplemental materials are available on the Open Science Framework (<https://osf.io/678rq/>). DSEM can only be estimated using a Bayesian estimator. This is a full-information estimator, which means that all available information is used without imputing missing values, and consistent estimation is guaranteed under the assumption that data are missing at random (a nonparametric missing completely at random test resulted in $p > .05$). We used two Gibbs-sampler chains of 50,000 iterations each, with normal priors centered on zero for regression coefficients, and mildly informative inverse Wishart priors for covariance matrices. We assessed convergence through visual inspection of the chains and posterior distributions. We report the posterior median and a 95% highest posterior density interval (HPDI). This

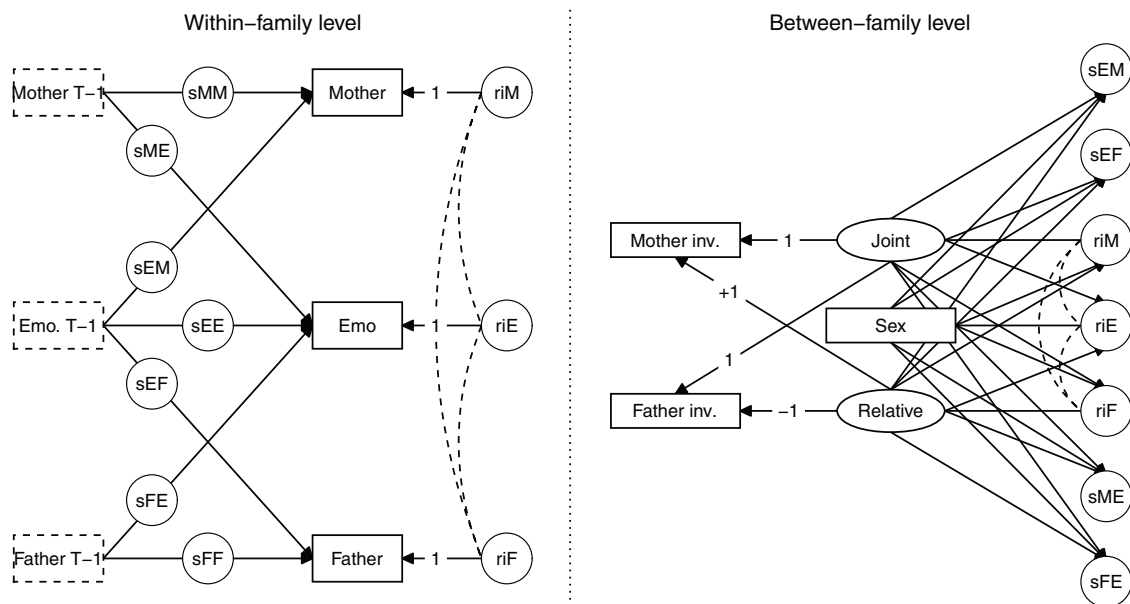


Figure 1. T-1 = previous measurement occasion; emo. = emotional adjustment; ri = random intercept; s = random slope; M = mother's qualitative involvement; E = emotional adjustment; F = father's qualitative involvement; inv. = quantitative involvement. Thus, sME represents the random slope of mothers' qualitative involvement on emotional adjustment.

is the “narrowest” possible interval that contains 95% of samples from the posterior distribution. It represents the most likely population values of the parameter in question. Results are best interpreted by examining the effect size (correlations and standardized regression coefficients) and the width of the HPDI. Significance is not a Bayesian concept, but we use the shorthand “significant” to refer to estimates for which less than 5% of the posterior distribution had the opposite sign from the estimate. [Supplementary Table S4](#) reports all standardized and unstandardized model parameters.

Results

Is Qualitative Parenting Correlated With Emotional Adjustment?

We hypothesized that warmth, consistency, and inductive reasoning would correlate positively, and anger negatively, with emotional adjustment. At the between-family level, we examined correlations between families’ average levels of qualitative parenting behaviors and emotional adjustment (see [Table 1](#)). These correlations indicate whether between-family differences in the average levels of parenting behaviors are associated with between-family differences in children’s emotional adjustment. Counter to $H_{1,2a}$, we found no significant correlations between parental warmth and children’s emotional adjustment. In support of $H_{1,2b}$, we found significant positive correlations between maternal and paternal consistency and emotional adjustment. Contrary to $H_{1,2c}$, we found that maternal and paternal inductive reasoning were negatively correlated with emotional adjustment. Finally, as hypothesized in $H_{1,2d}$, we found significant negative correlations between maternal and paternal anger and emotional adjustment. To sum up, in families where parents reported more consistency, children displayed better emotional adjustment—and in families where parents reported more inductive reasoning or anger, children showed poorer emotional adjustment.

We also examined within-family correlations (see [Table 1](#)), which indicate whether within-family fluctuations in parents’ parenting behaviors are correlated with fluctuations in their children’s emotional adjustment. In support of H_{1a} , we found significant positive within-family correlations between fathers’ and mothers’ warmth and emotional adjustment. This means that if, in any particular wave, parents reported more warmth than usual, their children displayed better emotional adjustment than usual. Fur-

thermore, in partial support of $H_{1b,c}$, we found significant positive correlations of emotional adjustment with mothers’, but not fathers’, consistency, as well as with fathers’, but not mothers’, inductive reasoning. Finally, contrary to H_{1d} , we found no significant within-family associations between children’s emotional adjustment and maternal or paternal anger. Counter to H_3 , none of the differences between mothers and fathers in the strength of either between- or within-family-level correlations were significant (see [Supplementary Table S4](#)).

Do Within-Family Fluctuations in Parenting Predict Emotional Adjustment, or Vice Versa?

We estimated over-time predictive effects between within-family fluctuations in qualitative parenting and emotional adjustment. Each family has family-specific regression coefficients, and across families, we estimated the intercept and variance of these cross-lagged effects. The intercept indicates the average of the within-family predictive effects across families, and the variance indicates whether the family-specific regression coefficient varies in strength (and sign) across families. H_{1a-d} also apply to these within-family predictive effects. To test these hypotheses, we examined the average standardized regression coefficients (see [Table 2](#)). With regard to average parenting effects, we found that, in line with H_{1a} , maternal warmth positively predicted children’s emotional adjustment in the next wave. The standardized regression coefficient of this effect is interpreted as follows: On average, across families, an increase of 1 standard deviation in maternal warmth in one wave predicts an increase of .99 standard deviations in children’s emotional adjustment in the next wave. Counter to H_{1b-d} , we found no parenting effects for consistency, inductive reasoning, or anger. However, the variances of all parenting effects were significant, indicating that the effect of qualitative parenting behaviors on children’s emotional adjustment varies across families. These variances were all significantly larger for fathers than for mothers (see [Supplementary Table S4](#)), indicating that fathers have a more variable effect on their children through specific parenting behaviors than mothers do.

With regard to child effects, in line with H_{2a} , the average cross-lagged effect of emotional adjustment on maternal warmth was positive and significant (see [Table 2](#)). Thus, on average, when children displayed better emotional adjustment than usual in one wave, their mothers displayed more warmth than usual in the next wave. Contrary to H_{2b} , the average effect of emotional adjustment

Table 1
Correlations Between Qualitative Parenting and Emotional Adjustment

Parameter	Warmth		Consistency		Reason		Anger	
	Father	Emo.	Father	Emo.	Father	Emo.	Father	Emo.
Between-family-level correlations								
Mother	0.61*	0.09	0.61*	0.20*	0.53*	-0.12*	0.64*	-0.29*
Father		-0.05		0.18*		-0.14*		-0.29*
Within-family-level correlations								
Father	0.16*	0.07*	0.14*	0.02	0.07*	0.04*	0.16*	-0.02
Mother		0.04*		0.04*		0.00		-0.03

Note. Emo. = emotional adjustment.

* <5% of posterior has opposite sign from estimate.

Table 2
Standardized Between-Family-Level Intercepts (Average Effect) and Unstandardized Variances of Within-Family Predictive Effects

Parameter	Warmth		Consistency		Reason		Anger	
	Est.	95% HPDI	Est.	95% HPDI	Est.	95% HPDI	Est.	95% HPDI
Average parenting effect of								
Mother	0.99 ^{d*}	[-0.20, 2.57]	0.07	[-1.22, 1.38]	0.55 ^a	[-0.74, 1.79]	-0.49 ^b	[-1.73, 0.72]
Father	-0.36 ^{cd}	[-0.98, 0.29]	-0.16	[-0.90, 0.53]	-0.28	[-1.02, 0.47]	0.10	[-0.54, 0.71]
Unstandardized variance of parenting effect of								
Mother	0.04 ^{e*}	[0.00, 0.07]	0.02 ^{ef}	[0.01, 0.03]	0.01 ^g	[0.01, 0.01]	0.01 ^h	[0.00, 0.01]
Father	0.14 ^{e*}	[0.11, 0.16]	0.12 ^{ef}	[0.09, 0.14]	0.09 ^g	[0.07, 0.11]	0.19 ^h	[0.15, 0.24]
Average child effect on								
Mother	4.38 [*]	[1.09, 7.45]	0.83	[-0.37, 2.05]	3.21 ^{ai}	[1.64, 4.83]	1.27 ^b	[0.21, 2.38]
Father	2.14 ^{ac}	[-0.27, 5.18]	0.91	[-0.25, 2.13]	0.40 ⁱ	[-0.97, 1.78]	0.01	[-1.24, 1.25]
Unstandardized variance of child effect on								
Mother	0.00 [*]	[0.00, 0.00]	0.02 [*]	[0.01, 0.03]	0.01 [*]	[0.01, 0.02]	0.02 [*]	[0.01, 0.03]
Father	0.00 [*]	[0.00, 0.01]	0.03 [*]	[0.02, 0.04]	0.02 [*]	[0.01, 0.04]	0.02 [*]	[0.01, 0.03]

Note. Est. = estimate; HPDI = highest posterior density interval. Matching letters indicate that parameters differed significantly; see [Supplementary Table S4](#) for all difference tests.

* < 5% of posterior has opposite sign from estimate.

on maternal consistency was nonsignificant. As hypothesized in H_{2c} , the intercept for maternal inductive reasoning was positive and significant. Counter to H_{2d} , the intercept for maternal anger was positive and significant, not negative. Thus, when children displayed better emotional adjustment than usual in one wave, their mothers displayed more anger than usual in the next wave. In support of H_{2a} , the average child effect of adjustment on paternal warmth was positive and significant. None of the other intercepts (H_{2b-d}) for child effects on fathers' parenting were significant, suggesting that fathers' parenting was relatively unresponsive to fluctuations in children's emotional adjustment. The variances of all child effects were significant but small, indicating that the effect of children's emotional adjustment on their parents' child-rearing behaviors differs only somewhat between families.

We established direction of effects by testing the difference between corresponding parent and child effects (see [Table 2](#) and [Supplementary Table S4](#)). All effects that were significant in one direction and nonsignificant in the opposite direction had significant difference tests. All effects that were significant (or nonsignificant) in both directions had nonsignificant difference tests. We examined differences between fathers and mothers in parent and child effects the same way. All effects that were significant for one parent but not significant for the other parent had significant difference tests, except for the child effect of emotional adjustment on parental anger, which did not differ significantly between parents.

Does Quantitative Involvement Predict the Average Level of Parenting and Adjustment?

To investigate H_{4-6} , we examined the predictive effects of joint and relative quantitative involvement on the random intercepts of qualitative parenting behaviors and emotional adjustment (see [Table 3](#)). With regard to effects of joint quantitative involvement on parenting, we found partial support for hypotheses H_{4a-c} : For both parents, greater joint involvement predicted increased warmth, consistency, and inductive reasoning. Notably, the association between joint involvement and warmth was almost double in size for fathers as compared to mothers. We did not find the

hypothesized negative effects of joint involvement on parental anger (H_{4d}). With regard to effects of relative quantitative involvement on parenting, we found limited support for H_{5a-d} , that greater differential involvement would positively predict the desirable parenting behaviors of the more involved parent and negatively predict those of the less involved parent. For mothers, the only significant result was that mothers displayed more warmth when they were relatively more involved than fathers. We found that fathers displayed less warmth, consistency, and inductive reasoning when mothers were relatively more involved than fathers. With regard to effects of quantitative involvement on emotional adjustment, counter to H_{6a} , we found that greater joint involvement negatively predicted emotional adjustment. Thus, children of highly involved parents generally displayed poorer emotional adjustment. H_{6b} was supported: Children's emotional adjustment was lower in families where mothers were relatively more involved than fathers.

Does Quantitative Involvement Moderate Within-Family Predictive Effects?

We conducted exploratory analyses of interactions between involvement quality and quantity by investigating whether between-family differences in quantitative involvement had significant effects on the within-family cross-lagged effects between qualitative parenting behaviors and emotional adjustment (see [Table 3](#)). The novelty of this research area precluded us from formulating specific hypotheses. With regard to parenting effects, the only significant interaction we found was for maternal warmth: The positive effect of maternal warmth on adjustment was less pronounced in families in which both parents were highly involved. Specifically, an increase of +1 standard deviation in joint involvement predicted a decrease of -.14 standard deviations in the within-family cross-lagged effect of maternal warmth on emotional adjustment (see [Table 2](#)). This same within-family effect increased by .11 standard deviations of the effect when relative involvement was one standard deviation higher, that is, when mothers were more involved than fathers. We found no moderation for paternal warmth, nor for both parents' consistency, inductive reasoning, and anger.

Table 3

Standardized Regression Coefficients of Quantitative Involvement on Between-Family Differences in Qualitative Parenting and Emotional Adjustment and on Within-Family Predictive Effects

Parameter	Warmth		Consistency		Reason		Anger	
	Est.	95% HPDI	Est.	95% HPDI	Est.	95% HPDI	Est.	95% HPDI
Effects of joint quantitative involvement on random intercepts of								
Mother	0.14*	[0.05, 0.24]	0.10*	[0.01, 0.18]	0.25*	[0.15, 0.35]	0.00	[-0.06, 0.06]
Father	0.26*	[0.18, 0.34]	0.12*	[0.04, 0.20]	0.24*	[0.16, 0.33]	-0.04	[-0.11, 0.04]
Emotional adjustment	-0.16	[-0.39, 0.06]	-0.08*	[-0.17, 0.01]	-0.08*	[-0.17, 0.01]	-0.09*	[-0.17, 0.00]
Effects of relative quantitative involvement on random intercepts of								
Mother	0.11*	[0.02, 0.20]	-0.03	[-0.12, 0.06]	0.00	[-0.09, 0.10]	-0.02	[-0.08, 0.04]
Father	-0.21*	[-0.29, -0.12]	-0.07*	[-0.16, 0.01]	-0.11*	[-0.20, -0.02]	0.05	[-0.02, 0.12]
Emotional adjustment	-0.39*	[-0.65, -0.18]	-0.14*	[-0.23, -0.05]	-0.14*	[-0.23, -0.06]	-0.12*	[-0.21, -0.03]
Moderating effects of joint involvement on parenting effects of								
Mother	-0.15*	[-0.36, 0.02]	0.01	[-0.17, 0.19]	-0.06	[-0.25, 0.12]	0.11	[-0.06, 0.28]
Father	0.06	[-0.03, 0.15]	0.02	[-0.08, 0.13]	0.04	[-0.07, 0.15]	-0.00	[-0.09, 0.09]
Moderating effects of relative involvement on parenting effects of								
Mother	0.16*	[-0.01, 0.40]	-0.09	[-0.29, 0.09]	0.05	[-0.15, 0.26]	0.05	[-0.13, 0.21]
Father	-0.01	[-0.10, 0.08]	0.02	[-0.08, 0.12]	0.07	[-0.04, 0.17]	0.04	[-0.06, 0.13]
Moderating effects of joint involvement on child effects on								
Mother	-0.26	[-0.64, 0.20]	-0.12	[-0.28, 0.06]	-0.33*	[-0.55, -0.10]	-0.06	[-0.21, 0.08]
Father	-0.06	[-0.42, 0.27]	-0.11	[-0.28, 0.06]	0.02	[-0.17, 0.21]	-0.01	[-0.18, 0.16]
Moderating effects of relative involvement on child effects on								
Mother	-0.41*	[-0.79, -0.05]	-0.10	[-0.27, 0.07]	0.00	[-0.22, 0.23]	-0.02	[-0.16, 0.12]
Father	-0.02	[-0.40, 0.34]	-0.12	[-0.30, 0.04]	-0.26*	[-0.45, -0.08]	0.02	[-0.15, 0.18]

Note. The effects reported in this table correspond to the "Between-family level" panel of Figure 1. Est. = estimate; HPDI = highest posterior density interval.

* <5% of posterior has opposite sign from estimate.

With regard to the moderation of child effects by quantitative involvement, we found that greater joint quantitative involvement and mothers' greater relative involvement both negatively moderated the within-family effect of emotional adjustment on maternal warmth. We found no effects for consistency. For inductive reasoning, we found that greater joint involvement negatively moderated the within-family effect of adjustment on maternal inductive reasoning. Greater relative involvement also negatively moderated the effect of emotional adjustment on fathers' inductive reasoning. Thus, in families where mothers were more involved than fathers, children's increased emotional adjustment predicted a stronger decrease in paternal reasoning—and conversely, decreased emotional adjustment predicted increased paternal reasoning. We found no moderating effects for anger.

Child Sex Differences

We found sex differences in the average levels of qualitative parenting behaviors: In partial support of $H_{7a,d}$, fathers displayed more warmth toward daughters, and both parents displayed more anger toward sons (see Table 4). Counter to $H_{7b,c}$, there were no sex differences in consistency, and both parents displayed more inductive reasoning toward sons. We found no sex differences in the average level of emotional adjustment. H_{8a-d} were rejected: There was no evidence for stronger associations between qualitative parenting and emotional adjustment between children and

their same-sex parent. The only predictive effects moderated by child sex were child effects of emotional adjustment on maternal and paternal inductive reasoning: When children displayed worse emotional adjustment than usual in one wave, their parents reported stronger increases in inductive reasoning in the next wave for boys than for girls.

Discussion

To recapitulate, we set out to obtain a more comprehensive and nuanced understanding of how fathers' and mothers' quantitative and qualitative involvement relate to children's emotional adjustment development. We used innovative methods to disentangle stable between-family differences from within-family fluctuations in the study variables, allowing us to investigate at which of these levels associations occur and establish the direction of effects between parents and children. Furthermore, we examined whether joint and relative quantitative involvement predict parenting and emotional adjustment and moderate the longitudinal interplay between qualitative parenting and emotional adjustment.

Correlations Between Qualitative Parenting and Emotional Adjustment

We found mixed evidence for our hypotheses that warmth, consistency, and inductive reasoning would correlate positively,

Table 4
Standardized Regression Coefficients of Child Sex on Average Levels of Qualitative Parenting and Emotional Adjustment and on Within-Family Predictive Effects

Parameter	Warmth		Consistency		Reason		Anger	
	Est.	95% HPDI	Est.	95% HPDI	Est.	95% HPDI	Est.	95% HPDI
Sex differences in random intercepts of parenting and adjustment								
Mother	-0.05	[-0.11, 0.01]	-0.00	[-0.06, 0.05]	0.09*	[0.02, 0.15]	0.09*	[0.05, 0.12]
Father	-0.08*	[-0.14, -0.03]	-0.00	[-0.06, 0.05]	0.06*	[0.01, 0.12]	0.09*	[0.04, 0.14]
Emotional adjustment	0.04	[-0.09, 0.19]	0.01	[-0.04, 0.07]	0.01	[-0.04, 0.07]	-0.00	[-0.06, 0.06]
Moderation of parenting effects by sex								
Mother	-0.01	[-0.12, 0.09]	0.02	[-0.10, 0.15]	0.06	[-0.07, 0.19]	-0.07	[-0.19, 0.04]
Father	-0.03	[-0.09, 0.03]	-0.05	[-0.12, 0.02]	-0.05	[-0.12, 0.02]	-0.01	[-0.07, 0.05]
Moderation of child effects by sex								
Mother	0.08	[-0.18, 0.36]	-0.06	[-0.18, 0.05]	-0.17*	[-0.33, -0.02]	0.00	[-0.09, 0.10]
Father	0.06	[-0.18, 0.30]	-0.00	[-0.12, 0.11]	-0.22*	[-0.35, -0.09]	-0.04	[-0.16, 0.08]

Note. Child sex is a binary predictor (-1 = female, 1 = male). The effects reported in this table correspond to the "Between-family level" panel of Figure 1. Est. = estimate; HPDI = highest posterior density interval.

* < 5% of posterior has opposite sign from estimate.

and anger negatively, with emotional adjustment. Parental warmth correlated with emotional adjustment only at the within-family level. Consistency correlated positively with adjustment at the between-family level for both parents and at the within-family level for mothers. Correlations with inductive reasoning were, paradoxically, opposite in sign at the between- and within-family levels. At the between-family level, parents who engaged in more inductive reasoning had children with poorer emotional adjustment. At the within-family level, fathers' inductive reasoning was positively correlated with adjustment. Finally, for anger, we found the predicted negative associations at the between-family level only, which means that, in families where mothers or fathers display high anger, children tend to be less emotionally well adjusted. Most of these findings are in line with hypotheses based on prior research that did not disentangle between- and within-family variance. However, the few notable deviations from the expected pattern illustrate an important insight: Correlations do not necessarily occur at both of these levels and can even be opposite in sign, a phenomenon known as the ecological fallacy (see Keijsers, 2016).

A potential explanation for the paradoxical findings for inductive reasoning might be that the construct of inductive reasoning confounds *how* parents discipline their children (sample item: "How often do you talk it over and reason with this child. . .") with *how often* their child misbehaves ("..when he/she misbehaved?"). Stable between-family differences in inductive reasoning might tap into *how often* the child misbehaves. The negative between-family correlations between inductive reasoning and emotional adjustment suggest that poorly adjusted children are disciplined more often. Within-family fluctuations, by contrast, might tap into context-specific changes in *how* parents discipline their children (Critchley & Sanson, 2006). When parents use more inductive reasoning than they usually do, talking over and reasoning about misbehavior, this might benefit emotional adjustment.

Direction of Within-Family Predictive Effects

We found within-family predictive effects between parental warmth and emotional adjustment, which were bidirectional for

mothers. This suggests that parents' warmth and children's emotional adjustment reciprocally influence one another, potentially through causal mechanisms. There was no other evidence for parenting effects, however. Child effects outweighed parenting effects both in number and in size. The direction of effects thus appears to flow primarily from children to parents.

With regard to these child effects, on average, children who displayed better emotional adjustment in one wave evoked more warmth from both parents and more inductive reasoning from mothers in the next wave. This latter finding is in line with the aforementioned within-family correlations for inductive reasoning. Counter to our hypothesis, we found that children who displayed better emotional adjustment in one wave evoked greater maternal anger in the next wave. One possible explanation is regression to the mean: On average, emotional adjustment showed no-to-negative stability coefficients in all models. That means that better emotional adjustment in one wave was likely to be followed by worse adjustment in the next wave. Looking beyond direction of effects, it is worth noting that the brunt of negative associations between anger and adjustment appears to be due to stable between-family differences. The sparsity of within-family effects of anger might be due to a ceiling effect: If the stable level of parental anger in a family is high enough to negatively impact children's emotional adjustment, over time, fluctuations of that anger might no longer make much of a difference.

Differences Between Mothers and Fathers

Correlations of parenting behaviors with children's adjustment were all similar for mothers and fathers at the between-family level. Within-family correlations, however, were stronger for mothers' consistency and stronger for fathers' warmth and reasoning. As mentioned before, mothers tend to spend more time with their children than fathers, as also was seen in our sample. This might explain why associations for maternal consistency were stronger: Spending more time with the child provides greater opportunity for consistent behavior. For fathers, associations were stronger for inductive reasoning and warmth—behaviors that can also be expressed in one-off interactions, such as when disciplining

a child (inductive reasoning) or during play time (warmth). The stronger association with inductive reasoning for fathers is in line with the classic view of the father as disciplinarian (Flouri, 2010).

With regard to average parenting effects, the only difference between mothers and fathers was the predictive effect of warmth on emotional adjustment, which was evident only for mothers. This is in line with prior work, indicating that warmth is an important socialization mechanism for mothers (Van Lissa et al., 2019). All parenting effects varied significantly across families, however, and this variability was notably greater for fathers than mothers. This suggests that fathers' influence is more context dependent than mothers' influence and highlights the importance of exploring predictors of within-family processes in future research.

With regard to child effects, we found substantial evidence that mothers' parenting was more responsive to children's emotional adjustment than fathers' parenting. Specifically, mothers' anger, inductive reasoning, and warmth were predicted by adjustment, whereas these effects were absent for fathers. This is in line with some prior studies, which found that mothers are more sensitive to children's needs (see Fagan et al., 2014, p. 395).

Does Quantitative Involvement Predict Qualitative Parenting Behaviors?

Turning to our findings from linkages between quantitative involvement and qualitative parenting behaviors, our results were in line with our hypothesis that greater involvement would be associated with more desirable parenting behaviors (Sabatini & Leaper, 2004). We found that, when both parents were more involved, they displayed greater warmth, consistency, and inductive reasoning. Fathers, in particular, reported substantially greater parental warmth when both parents were more involved. We also found that, when mothers performed more care tasks than fathers, mothers displayed more warmth, and fathers displayed less warmth, consistency, and inductive reasoning. This increase in maternal warmth might reflect an attempt to compensate for fathers' absence (Shinn, 1978). These results indicate that, when childcare is unequally distributed, fathers engage in less desirable qualitative parenting behaviors (see also Craig & Mullan, 2011).

Quantitative Involvement and Emotional Adjustment

Our operationalization of quantitative involvement in terms of joint and relative involvement allowed us to address the claim that any effects of father involvement on children's adjustment might in fact be due to children receiving greater total care (Deutsch et al., 2001). However, counter to our hypothesis, joint involvement was *negatively* associated with between-family differences in emotional adjustment. Self-determination theory suggests a potential explanation: Excessive involvement might undermine children's autonomy needs, thereby leading to increased emotional maladjustment (Van der Giessen et al., 2014). This explanation is supported by research on "helicopter parenting" as psychological well-being was found to be lower in children of overly involved parents (Schiffman et al., 2014). Another potential explanation is that quantitative involvement is driven in part by children's objective needs, such as atypical or delayed development. Such factors require increased quantitative care and are also associated

with children's emotional maladjustment, which could result in a negative correlation between the two.

In line with predictions derived from coparenting theory, we found that children's emotional adjustment was lower in families where mothers were relatively more involved than fathers—even after controlling for the joint amount of care provided. Although substantial empirical work has indicated that the marital relationship suffers when childcare is unequally distributed (Shockley & Allen, 2018), our research is one of few to examine the implications for children's adjustment (see also Deutsch et al., 2001). We caution against undue causal interpretation of these findings, however. Future research is required to examine potential pathways, such as whether children's adjustment suffers when they feel like both parents are not equally invested in their well-being, whether fathers are more likely to withdraw from childcare responsibilities when children display poor emotional adjustment, or whether differential involvement strains the marital relationship, and this strain spills over to children's emotional adjustment.

Does Quantitative Involvement Moderate Links Between Qualitative Parenting and Emotional Adjustment?

We found limited evidence that quantitative involvement moderates parenting effects on emotional adjustment. Specifically, joint and relative quantitative involvement moderated the effect of maternal warmth on adjustment: Mothers' warmth predicted emotional adjustment less strongly when both parents were more involved and more strongly when mothers were relatively more involved than fathers. These findings suggest a compensatory effect whereby mothers' warmth can make up for disadvantages incurred by having a relatively uninvolved father (Shinn, 1978).

Evidence that quantitative involvement moderates child effects was somewhat stronger. First, when joint involvement was higher, and when mothers' relative involvement was greater compared to fathers, emotional adjustment became less predictive of maternal warmth. These findings can be interpreted in the context of the sizable average positive effect of adjustment on maternal warmth. This positive effect was somewhat smaller in families where mothers' involvement was high—either in terms of joint or relative involvement. Second, joint quantitative involvement positively moderated the link from emotional adjustment to maternal inductive reasoning. This suggests that mothers have more of a role as disciplinarian in families where both parents are highly involved. When mothers were relatively more involved than fathers, fathers increased their inductive reasoning more strongly in response to children's emotional maladjustment. Together, these findings suggest that fathers take more of a role as disciplinarian when mothers are relatively more involved in care tasks.

Child Sex Differences

In line with prior research, we found that parents are stricter with sons than with daughters; specifically, parents displayed more anger and inductive reasoning, and less warmth, toward sons. Sex also moderated child effects: Emotional adjustment predicted both parents' inductive reasoning more negatively when children were male. This finding suggests that some of parents' greater strictness toward boys is alleviated when boys are well adjusted.

Theoretical Implications of Disentangling Within- and Between-Family Variance

The present study found substantial evidence for correlations at the between-family level; evidence for within-family predictive effects was limited and revealed mostly child effects. In a previous study with a comparable design, conducted in an adolescent sample, we similarly found mostly between-family-level correlations and child effects (Van Lissa et al., 2019; see also Keijsers, 2016). We explained that finding in light of the relative equality of parent-adolescent relationships. We theorized that the between-family-level correlations might reflect the consolidated influence of within-family parent effects that took place at an earlier age and hypothesized that parenting effects would be more prevalent, and between-family correlations weaker, in younger children. The present findings refute these conjectures. The preponderance of child effects and between-family-level correlations in a sample of younger children, age 6–12, suggests either that parent effects occurred at an even younger age or that something else is at play.

As similar patterns continue to emerge, it might be worth reflecting on their implications for developmental theory. We should reconsider this question: To what extent are parents shaping children's development, and to what extent are they adapting to it? Our findings are less congruent with a fully bidirectional conceptualization of reciprocal influence and more consistent with a model where parents "set the stage" for children's development through their stable differences from other parents and continue to adjust to children's changing needs over time. Our findings further serve as a reminder that we should be critical of causal interpretations of research that does not account for stable between-family differences (e.g., Brand et al., 1990).

It has been argued that within-family predictive effects are of prime theoretical relevance in developmental psychology (Keijsers, 2016). Yet our study and others (e.g., Van Lissa et al., 2019) have found high intraclass correlations, meaning that the brunt of variance in the variables studied is due to stable between-family differences. These data suggest that between-family-level correlations should be treated as an outcome of interest. We argued elsewhere that between-family-level correlations can have different causes (Van Lissa et al., 2019). They might reflect the consolidated effect of within-family parental socialization at an earlier age. This could be tested by comparing the size of between-family correlations across children of different ages, including very young children. Alternatively, they might reflect the influence of third variables that impact both constructs: Economic hardship, for instance, undermines both parents' capacity for consistent parenting and children's socioemotional adjustment (McLoyd, 1990). Testing this explanation would require extensive investigation of confounding variables. This is common in sociology but has rarely been done in conjunction with sophisticated models of development (see Keizer, 2020). Finally, future research might shed light on the extent to which between-family-level correlations reflect genetic covariation, or shared versus nonshared environmental effects, by using genetically informed designs with twin or adoptive families (see Knopik, Neiderhiser, DeFries, & Plomin, 2017).

Methodological innovations that examine the role of stable between-family differences can thus inspire more sophisticated theoretical conceptualizations of parental influences in child development. At the same time, we should consider the limitations of

these methods. The assumption that within-family fluctuations adequately capture all causal influences that parents exert on their children, for instance, is questionable. Stable factors can also exert changing influences over time. As an illustrative example, the genetic makeup that is passed from parents to children is stable, and yet the expression of some genes emerges over time. It similarly might be possible for stable parental psychosocial characteristics to influence children differently at different time points. Another important limitation is that within-family cross-lagged effects are time scale dependent. If parents shape their children through specific behaviors in dyadic interactions, then annual reflective self-reports might fail to capture parenting effects. Thus, although these methodological innovations are undoubtedly a step forward, they might not be the definitive paradigm for investigating the interplay between parents and children.

Strengths and Limitations

Several strengths allow us to make unique contributions to the literature. First, mothers and fathers both completed identical parenting measures, which allowed us to disentangle and compare their unique roles in children's emotional adjustment development. Second, we incorporated both quantitative and qualitative involvement. This allowed us to provide a more nuanced overview of the links between parental involvement and emotional adjustment development than prior work, including how the distribution of quantitative childcare relates to parenting quality and emotional adjustment and moderates links between these two constructs. Although some prior studies have also incorporated both quality and quantity of parenting, this work did not disentangle the total amount of care children received from the relative distribution of care tasks (see Deutsch et al., 2001). We addressed this limitation by estimating the latent mean and difference of absolute maternal and paternal quantitative involvement. This allows us to disentangle the effect of joint involvement, which reflects the total amount of care children receive, from relative involvement, which reflects the childcare distribution. Third, we used innovative methods to examine the extent to which parenting and adjustment are linked at the between- versus within-family level. Compared to methods that do not distinguish between these levels, our approach estimates within-family processes more accurately. Our findings contribute to a growing literature suggesting that stable between-family differences might play a larger role than was previously thought, even in early childhood. Confidence in the results is bolstered by the fact that we used multi-informant reports: Each parent reported on their own parenting, and teachers reported on children's emotional adjustment. This avoids common method bias and single reporter bias. As teachers are likely to be "blind" to parents' child-rearing behavior and have no stake in the parent-child relationship, their reports might be less biased in general.

A potential limitation of the present study is that teachers' reports of emotional adjustment might be more noisy than self- or parent reports. A teacher is responsible for many pupils and might not be aware of each pupil's emotional adjustment. Moreover, although the instrument we used assessed *overt* symptoms of emotional maladjustment, people are generally poor judges of others' emotional states (Ickes, 1997). Consequently, our effect sizes might be attenuated by noisy measures of emotional adjustment. Teachers' reports have benefits as well as young children

might lack the ability to report accurately on their own emotional adjustment, and clinical assessments are typically unfeasible for large-scale panel studies. Another limitation to consider is the fact that we operationalized qualitative parenting in terms of specific parenting behaviors, whereas others have focused on parenting styles composed of combinations of these behaviors (Maccoby & Martin, 1983). We focused on specific parenting behaviors for two reasons. First, although aggregating parenting behaviors into parenting styles is theoretically defensible, it also amounts to data reduction. This would prevent a fine-grained investigation of differences between mothers' and fathers' unique roles in child rearing. Moreover, the longitudinal models we used are not suitable for categorical variables. Still, we must acknowledge the possibility that a constellation of parenting behaviors has different effects than the sum of its constituent dimensions. Finally, one potential limitation is that we only included quantitative involvement in the first year of the study. This was done for pragmatic reasons: Children's developmental needs change rapidly, especially in the first years of life. It would be impossible to establish measurement invariance for quantitative involvement from age 6 to 12. Our approach assumes that a "snapshot" of quantitative involvement at age 6 taps into parents' general level of involvement. Consequently, we are unable to assess whether within-person fluctuations in qualitative and quantitative involvement interact. Future research intending to examine such interactions at the within-family level might focus on a more restricted age range or use an age-invariant assessment of quantitative involvement. A final potential limitation pertains to the generalizability of the findings. From the total sample, we selected our target sample of intact, biological families of natural-born, nonminority, Australian citizens. It is possible, but beyond the scope of this study, that the findings might have limited generalizability for Australian minorities or for families in other industrialized nations.

Conclusions

To recapitulate, we set out to investigate how fathers' and mothers' quantitative and qualitative involvement relate to children's emotional adjustment development. We used innovative methods to disentangle stable between-family differences from within-family fluctuations in qualitative parenting and emotional adjustment. Our results suggest that between-family differences in qualitative parenting behaviors explain a substantial amount of between-family differences in children's emotional adjustment. Moreover, hypotheses based on prior literature that did not disentangle between- and within-family variance were often supported at only one of these levels. This illustrates that analyses aggregating these two levels should not be overinterpreted as reflecting within-family processes.

We found only limited evidence for within-family parenting effects that were significant, on average, across families. Even at a relatively young age, child effects outweighed parenting effects in number and size. The direction of effects thus appears to flow primarily from children to parents. We did find that parenting effects varied substantially between families. Some of this variance was explained by between-family differences in joint and relative quantitative involvement: In families where mothers were more involved than fathers, there was greater differentiation between the roles mothers' versus fathers' qualitative parenting

played in children's emotional adjustment development. In such families, maternal warmth was more strongly predictive of, and less dependent on, children's emotional adjustment, and fathers' inductive reasoning—a disciplinary strategy—was more contingent on children's emotional adjustment. This suggests that, when differential involvement was higher, parents adopted more differentiated roles: The role of mothers more strongly resembled that of the classic warm "attachment figure" and fathers that of an authority figure. When both parents were more involved, mothers' warmth was less strong of a predictor for emotional adjustment, and mothers' inductive reasoning also became more contingent on adjustment, suggesting that mothers in such families played more similar roles to fathers.

We also found substantial evidence that, when joint involvement was higher, both parents engaged more in parenting behaviors positively associated with children's adjustment. Conversely, when mothers were more involved than fathers, mothers expressed more warmth, but fathers displayed less desirable parenting behaviors (less consistency, inductive reasoning, and warmth). Children's emotional adjustment, too, was lower when mothers were relatively more involved than fathers. These findings highlight the importance of considering interactions between quantitative and qualitative involvement and suggest that all family members might benefit from a more equal distribution of childcare tasks.

With regard to mothers' versus fathers' unique roles in children's emotional development, we found that, in line with the notion of the mother as a warm, supportive attachment figure, maternal warmth and consistency were associated with children's emotional adjustment. Evidence for a consistent unique role for fathers was limited, although within-family correlations between paternal inductive reasoning and emotional adjustment suggest that fathers might play a role as disciplinarian. Parenting effects also varied significantly more across families for fathers than mothers. Combined with the aforementioned interaction effects between qualitative and quantitative involvement, this suggests that—above all—the role of fathers is more context dependent than that of mothers.

References

- Asparouhov, T., Hamaker, E. L., & Muthén, B. (2018). Dynamic structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 25, 359–388. <http://dx.doi.org/10.1080/10705511.2017.1406803>
- Australian Institute of Family Studies. (2020). *Growing up in Australia*. Retrieved from <https://growingupinaustralia.gov.au/>
- Barber, B. K., & Xia, M. (2013). The centrality of control to parenting and its effects. In R. E. Larzelere, A. S. Morris, & A. W. Harrist (Eds.), *Authoritative parenting: Synthesizing nurturance and discipline for optimal child development* (pp. 61–87). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/13948-004>
- Barnett, M. A., Deng, M., Mills-Koonce, W. R., Willoughby, M., & Cox, M. (2008). Interdependence of parenting of mothers and fathers of infants. *Journal of Family Psychology*, 22, 561–573. <http://dx.doi.org/10.1037/0893-3200.22.3.561>
- Baxter, J., & Smart, D. (2011). *Fathering in Australia among couple families with young children*. Canberra, Australia: Department of Families, Housing, Community Services and Indigenous Affairs.
- Bögels, S. M., & Perotti, E. C. (2011). Does father know best? A formal model of the paternal influence on childhood social anxiety. *Journal of*

- Child and Family Studies*, 20, 171–181. <http://dx.doi.org/10.1007/s10826-010-9441-0>
- Brand, J., Crous, B. H., & Hanekom, J. D. M. (1990). Perceived parental inconsistency as a factor in the emotional development of behaviour-disordered children. *Psychological Reports*, 66, 620–622. <http://dx.doi.org/10.2466/pr0.1990.66.2.620>
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press. Retrieved from <http://books.google.com?id=8cf0FYm0jW0C>
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review*, 106, 676–713. <http://dx.doi.org/10.1037/0033-295X.106.4.676>
- Canada, S. (2000). *National Longitudinal Survey of Children and Youth (NLSCY) Cycle 3 survey instruments: Parent questionnaire*. Ottawa, Canada: Author.
- Cassano, M., Perry-Parrish, C., & Zeman, J. (2007). Influence of gender on parental socialization of children's sadness regulation. *Social Development*, 16, 210–231. <http://dx.doi.org/10.1111/j.1467-9507.2007.00381.x>
- Chang, L., Schwartz, D., Dodge, K. A., & McBride-Chang, C. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of Family Psychology*, 17, 598–606. <http://dx.doi.org/10.1037/0893-3200.17.4.598>
- Craig, L., & Mullan, K. (2011). How mothers and fathers share childcare: A cross-national time-use comparison. *American Sociological Review*, 76, 834–861. <http://dx.doi.org/10.1177/0003122411427673>
- Critchley, C. R., & Sanson, A. V. (2006). Is parent disciplinary behavior enduring or situational? A multilevel modeling investigation of individual and contextual influences on power assertive and inductive reasoning behaviors. *Journal of Applied Developmental Psychology*, 27, 370–388. <http://dx.doi.org/10.1016/j.appdev.2006.04.006>
- Davies, P. T., & Cummings, E. M. (2006). Interparental discord, family process, and developmental psychopathology. In I. D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Vol. 3: Risk, disorder, and adaptation* (2nd ed., pp. 86–128). Hoboken, NJ: Wiley.
- Deutsch, F. M., Servis, L. J., & Payne, J. D. (2001). Paternal participation in child care and its effects on children's self-esteem and attitudes toward gendered roles. *Journal of Family Issues*, 22, 1000–1024. <http://dx.doi.org/10.1177/019251301022008003>
- Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development*, 70, 513–534. <http://dx.doi.org/10.1111/1467-8624.00037>
- Else-Quest, N. M., Hyde, J. S., Goldsmith, H. H., & Hulle, C. A. V. (2006). Gender differences in temperament: A meta-analysis. *Psychological Bulletin*, 132, 33–72. <http://dx.doi.org/10.1037/0033-2909.132.1.33>
- Fagan, J., Day, R., Lamb, M. E., & Cabrera, N. J. (2014). Should researchers conceptualize differently the dimensions of parenting for fathers and mothers? *Journal of Family Theory & Review*, 6, 390–405.
- Feinberg, M. E. (2003). The internal structure and ecological context of coparenting: A framework for research and intervention. *Parenting, Science and Practice*, 3, 95–131. http://dx.doi.org/10.1207/S15327922PAR0302_01
- Flouri, E. (2010). Fathers' behaviors and children's psychopathology. *Clinical Psychology Review*, 30, 363–369. <http://dx.doi.org/10.1016/j.cpr.2010.01.004>
- Gadeyne, E., Ghesquière, P., & Onghena, P. (2004). Longitudinal relations between parenting and child adjustment in young children. *Journal of Clinical Child & Adolescent Psychology*, 33, 347–358. http://dx.doi.org/10.1207/s15374424jccp3302_16
- Giallo, R., Treyvaud, K., Cooklin, A., & Wade, C. (2013). Mothers' and fathers' involvement in home activities with their children: Psychosocial factors and the role of parental self-efficacy. *Early Child Development and Care*, 183(3–4), 343–359. <http://dx.doi.org/10.1080/03004430.2012.711587>
- Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40, 1337–1345. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0890856709605438>
- Gross, J. J. (2013). *Handbook of emotion regulation*. New York, NY: Guilford Press.
- Grossmann, K. E., & Grossmann, K. (1998). Développement de l'attachement et adaptation psychologique du berceau au tombeau [Development of attachment and psychological adjustment from cradle to grave]. *Enfance*, 51, 44–68. <http://dx.doi.org/10.3406/enfan.1998.3115>
- Grusec, J. E., & Goodnow, J. J. (1994). Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental Psychology*, 30, 4–19. <http://dx.doi.org/10.1037/0012-1649.30.1.4>
- Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, 20, 102–116. <http://dx.doi.org/10.1037/a0038889>
- Ickes, W. (Ed.). (1997). *Empathic accuracy*. New York, NY: Guilford Press.
- Jaffee, S. R., Moffitt, T. E., Caspi, A., & Taylor, A. (2003). Life with (or without) father: The benefits of living with two biological parents depend on the father's antisocial behavior. *Child Development*, 74, 109–126. <http://dx.doi.org/10.1111/1467-8624.t01-1-00524>
- Jia, R., Kotila, L. E., & Schoppe-Sullivan, S. J. (2012). Transactional relations between father involvement and preschoolers' socioemotional adjustment. *Journal of Family Psychology*, 26, 848–857. <http://dx.doi.org/10.1037/a0030245>
- Keijsers, L. (2016). Parental monitoring and adolescent problem behaviors: How much do we really know? *International Journal of Behavioral Development*, 40, 271–281. <http://dx.doi.org/10.1177/0165025415592515>
- Keizer, R. (2020). The role of fathers in the intergenerational transmission of (dis)advantages: Linking sociological stratification questions to developmental psychology research. In H. Fitzgerald (Ed.), *Handbook on fathers and child development*. New York, NY: Springer.
- Keizer, R., van Lissa, C. J., Tiemeier, H., & Lucassen, N. (2019). The influence of fathers and mothers equally sharing childcare responsibilities on children's cognitive development from early childhood to school age: An overlooked mechanism in the intergenerational transmission of (dis)advantages? *European Sociological Review*, 36, 1–15. <http://dx.doi.org/10.1093/esr/jcz046>
- Kerr, M., Stattin, H., & Özdemir, M. (2012). Perceived parenting style and adolescent adjustment: Revisiting directions of effects and the role of parental knowledge. *Developmental Psychology*, 48, 1540–1553. <http://dx.doi.org/10.1037/a0027720>
- Knopik, V. S., Neiderhiser, J. M., DeFries, J. C., & Plomin, R. (2017). *Behavioral genetics* (7th ed.). Retrieved from <https://www.macmillanlearning.com/college/ca/product/Behavioral-Genetics/p/1464176051>
- Lamb, M. E., & Lewis, C. (2004). The development and significance of father-child relationships in two-parent families. In M. E. Lamb (Ed.), *The role of the father in child development* (4th ed., pp. 272–306). Hoboken, NJ: Wiley.
- Lamb, M. E., Pleck, J. H., Charnov, E. L., & Levine, J. A. (1987). A biosocial perspective on paternal behavior and involvement. In J. B. Lancaster, J. Altmann, A. S. Rossi, & L. R. Sherrod (Eds.), *Parenting across the life span: Biosocial dimensions* (pp. 111–142). Chicago, IL: Aldine Publishing Company.
- Lengua, L. J., & Kovacs, E. A. (2005). Bidirectional associations between temperament and parenting and the prediction of adjustment problems in middle childhood. *Journal of Applied Developmental Psychology*, 26, 21–38. <http://dx.doi.org/10.1016/j.appdev.2004.10.001>
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the

- family: Parent-child interaction. In P. H. Mussen (Ed.), *Handbook of child psychology: Formerly Carmichael's Manual of child psychology* (pp. 1–101). Hoboken, NJ: Wiley.
- McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data. *Annual Review of Psychology*, *60*, 577–605. <http://dx.doi.org/10.1146/annurev.psych.60.110707.163612>
- McDowell, D. J., Parke, R. D., & Wang, S. J. (2003). Differences between mothers' and fathers' advice-giving style and content: Relations with social competence and psychological functioning behavior in middle childhood. *Merrill-Palmer Quarterly*, *49*, 55–76. <http://dx.doi.org/10.1353/mpq.2003.0004>
- McLanahan, S., & Teitler, J. (2014). The consequences of father absence. In M. E. Lamb (Ed.), *Parenting and child development in nontraditional families* (pp. 83–102). New York, NY: Psychology Press. Retrieved from <http://books.google.com?id=ChSuBAAAQBAJ>
- McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development*, *61*, 311–346. <http://dx.doi.org/10.2307/1131096>
- Morris, A. S., Silk, J. S., Steinberg, L., Myers, S. S., & Robinson, L. R. (2007). The role of the family context in the development of emotion regulation. *Social Development*, *16*, 361–388. <http://dx.doi.org/10.1111/j.1467-9507.2007.00389.x>
- Otterpohl, N., & Wild, E. (2015). Cross-lagged relations among parenting, children's emotion regulation, and psychosocial adjustment in early adolescence. *Journal of Clinical Child & Adolescent Psychology*, *44*, 93–108. <http://dx.doi.org/10.1080/15374416.2013.862802>
- Paquette, D. (2004). Theorizing the father-child relationship: Mechanisms and developmental outcomes. *Human Development*, *47*, 193–219. <http://dx.doi.org/10.1159/000078723>
- Paquette, D., & Dumont, C. (2013). The father-child activation relationship, sex differences, and attachment disorganization in toddlerhood. *Child Development Research*, *2013*, 1–9. <http://dx.doi.org/10.1155/2013/102860>
- Parke, R. D. (2000). Father involvement. *Marriage & Family Review*, *29*(2–3), 43–58. http://dx.doi.org/10.1300/J002v29n02_04
- Paterson, G., & Sanson, A. (2001). The association of behavioural adjustment to temperament, parenting and family characteristics among 5-year-old children. *Social Development*, *8*, 293–309. <http://dx.doi.org/10.1111/1467-9507.00097>
- Phares, V., Fields, S., & Kamboukos, D. (2009). Fathers' and mothers' involvement with their adolescents. *Journal of Child and Family Studies*, *18*, 1–9. <http://dx.doi.org/10.1007/s10826-008-9200-7>
- Pleck, E. H., & Pleck, J. H. (1997). Fatherhood ideals in the United States: Historical dimensions. In M. E. Lamb (Ed.), *The role of the father in child development* (pp. 33–48). New York, NY: Wiley
- Pleck, J. (2004). Paternal involvement: Revised conceptualization and theoretical linkages with child outcomes. In M. E. Lamb (Ed.), *The role of the father in child development* (pp. 58–93). Hoboken, NJ: Wiley.
- Pomerantz, E. M., & Ruble, D. N. (1998). The role of maternal control in the development of sex differences in child self-evaluative factors. *Child Development*, *69*, 458–478. <http://dx.doi.org/10.2307/1132178>
- Sabattini, L., & Leaper, C. (2004). The relation between mothers' and fathers' parenting styles and their division of labor in the home: Young adults' retrospective reports. *Sex Roles*, *50*(3–4), 217–225. <http://dx.doi.org/10.1023/B:SERS.0000015553.82390.f7>
- Scaramella, L. V., Sohr-Preston, S. L., Mirabile, S. P., Robison, S. D., & Callahan, K. L. (2008). Parenting and children's distress reactivity during toddlerhood: An examination of direction of effects. *Social Development*, *17*, 578–595. <http://dx.doi.org/10.1111/j.1467-9507.2007.00439.x>
- Schiffrin, H. H., Liss, M., Miles-McLean, H., Geary, K. A., Erchull, M. J., & Tashner, T. (2014). Helping or hovering? The effects of helicopter parenting on college students' well-being. *Journal of Child and Family Studies*, *23*, 548–557. <http://dx.doi.org/10.1007/s10826-013-9716-3>
- Shelton, K. H., & Harold, G. T. (2008). Interparental conflict, negative parenting, and children's adjustment: Bridging links between parents' depression and children's psychological distress. *Journal of Family Psychology*, *22*, 712–724. <http://dx.doi.org/10.1037/a0013515>
- Shinn, M. (1978). Father absence and children's cognitive development. *Psychological Bulletin*, *85*, 295–324. <http://dx.doi.org/10.1037/0033-2909.85.2.295>
- Shockley, K. M., & Allen, T. D. (2018). It's not what I expected: The association between dual-earner couples' met expectations for the division of paid and family labor and well-being. *Journal of Vocational Behavior*, *104*, 240–260. <http://dx.doi.org/10.1016/j.jvb.2017.11.009>
- Straus, M. A., & Stewart, J. H. (1999). Corporal punishment by American parents: National data on prevalence, chronicity, severity, and duration, in relation to child and family characteristics. *Clinical Child and Family Psychology Review*, *2*, 55–70. <http://dx.doi.org/10.1023/A:1021891529770>
- Van der Giessen, D., Branje, S., & Meeus, W. (2014). Perceived autonomy support from parents and best friends: Longitudinal associations with adolescents' depressive symptoms. *Social Development*, *23*, 537–555. <http://dx.doi.org/10.1111/sode.12061>
- Van Lissa, C. J., Keizer, R., Van Lier, P. A. C., Meeus, W. H. J., & Branje, S. (2019). The role of fathers' versus mothers' parenting in emotion-regulation development from mid-late adolescence: Disentangling between-family differences from within-family effects. *Developmental Psychology*, *55*, 377–389. <http://dx.doi.org/10.1037/dev0000612>
- Wang, M.-T., Hill, N. E., & Hofkens, T. (2014). Parental involvement and African American and European American adolescents' academic, behavioral, and emotional development in secondary school. *Child Development*, *85*, 2151–2168. <http://dx.doi.org/10.1111/cdev.12284>
- Wang, R., & Bianchi, S. M. (2009). ATUS fathers' involvement in child-care. *Social Indicators Research*, *93*, 141–145. <http://dx.doi.org/10.1007/s11205-008-9387-4>
- Wijsbroek, S. A. M., Hale, W. W., Raaijmakers, Q. A. W., & Meeus, W. H. J. (2011). The direction of effects between perceived parental behavioral control and psychological control and adolescents' self-reported GAD and SAD symptoms. *European Child & Adolescent Psychiatry*, *20*, 361–371. <http://dx.doi.org/10.1007/s00787-011-0183-3>

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