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Original Article

Father–Child Contact, Interparental Conflict, and Depressive Symptoms among Children of Divorced Parents

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Abstract

Contact between children and divorced fathers is often believed to strengthen the negative effect of interparental postdivorce conflict on children's well-being. Although this is a well-known hypothesis, there is surprisingly little evidence for it. This article examines the hypothesis using large-scale nationally representative data on secondary school students in the Netherlands. The hypothesis is tested using interactions of conflict with postdivorce contact and interactions of conflict with co-parenting. We find that children of divorced parents have more depressive symptoms than children of married parents. Interparental conflict after divorce increases children's depressive symptoms, while father–child contact has no effect. There is a significant interaction between interparental conflict and father–child contact: interparental conflict increases depression more when there is more contact between the father and the child. This is only observed for boys and not for girls. For girls, depression is increased when the quality of the tie to the father is poorer. Theoretical explanations are suggested in terms of exposure effects and conflicting loyalties.

Introduction

Many studies in the past have shown that conflicts between married parents reduce children's well-being (Buehler *et al.*, 1997; Crawford *et al.*, 2001). Several mechanisms are responsible for this effect. Conflict leads to insecurity on the part of the child, it increases feelings of fear and self-blame, it leads to loyalty conflicts, and it can 'spillover' into conflicts between parent and child (Grych *et al.*, 2000; Cummings and Davies, 2002; Gerard, Krishnakumar and Buehler, 2006). When parents divorce, the conflicts between them often continue, and it is plausible that such conflicts also affect the child (Fischer, De Graaf and Kalmijn, 2005). In doing so, postdivorce conflict can aggravate the well-known negative effect of parental separation on children's well-being and perhaps also be responsible for some of the heterogeneity in this effect (Fomby and Cherlin 2007; Amato and Anthony 2014). The question in this article is under which conditions conflicts between the parents after divorce are more rather than less detrimental for children's well-being. We specifically look at how the amount of contact with the nonresident divorced father moderates the effects of interparental postdivorce conflict. Several authors have argued that the impact of interparental conflict on the child is stronger when there is frequent contact between the child and his or her divorced father. Under these conditions, regular contact with the father would only add fuel to the fire, so it is

believed. Although this is a plausible hypothesis, few studies have tested it. One older American study found evidence for this interaction effect but only for boys (Amato and Rezac, 1994). Other studies have compared the association between father involvement in the child's life and child well-being in high- and low-conflict (postdivorce) families but did not test the assumed interaction formally (Laumann-Billings and Emery, 2000; Fabricius and Luecken, 2007; Baxter, Weston and Qu, 2011).

In this article, we test the interaction hypothesis using new nationally representative data on secondary school children in the Netherlands in 2010 (Kalter *et al.*, 2012). Even though the amount of information on parents in this survey is more limited than in the typical psychological study, the number of children with divorced, nonresident fathers is higher, the data are nationally representative, and there is little nonresponse because all children in a school class participated. We test the hypothesis in two ways: (i) by interacting the effect of postdivorce conflict on children's subjective well-being with the amount of contact the child has with the nonresident father, and (ii) by interacting the effect of postdivorce conflict with whether or not the (divorced) parents have a co-parenting arrangement. The two aspects of the father–child relationship are both similar and different. On the one hand, co-parenting can be seen as an indicator of contact because it implies that the child has frequent contact with the father. On the other hand, co-parenting implies sharing of responsibilities toward the child. This requires coordination and communication between parents and can create additional problems between ex-partners. In this sense, co-parenting is a somewhat different phenomenon than contact. As our outcome measure, we chose depressive symptoms. This measure is chosen for various reasons: it is a more serious outcome than life satisfaction, it is frequently used in studies of well-being, and when depression is chronic, it has negative repercussions on children's functioning in a range of life domains (Twenge and Nolen-Hoeksema, 2002).

A potential problem with the data is that they are cross-sectional. This implies that the main effects of interparental conflict and father–child contact and possibly the interaction effects as well can be biased by selection effects and by reverse causation (Hawkins, Amato and King, 2007; Kim, 2011). For example, fathers may become more reluctant to have contact with a child when this child feels depressed or has behavioral problems. Such 'child' effects have recently been found in an American longitudinal study of children's well-being and father involvement (Hawkins, Amato and King, 2007). Reverse causal effects have not been studied for interparental conflict. Unfortunately, national panel data with measures of parental conflict are rare or contain too few children who experience a divorce during the panel (Spruijt, de Goede and Vandervalk, 2004). Because little is known about the specific interaction effect that we study, a new cross-sectional test of the hypothesis is a useful contribution.

There are several reasons why a test of the interaction hypothesis is relevant. In the past decades, fathers have been given a greater role in the child's life after divorce. This is understandable, given the fact that gender roles in marriage have become more egalitarian. Studies have shown that there is more father–child contact after divorce in countries that have more egalitarian gender roles (Kalmijn, 2008). Moreover, across divorce cohorts (in the Netherlands), father–child relationships after divorce have become stronger, in line with the increasingly egalitarian gender roles in marriage (Westphal, Poortman and van der Lippe, 2014). At the same time, however, it has been recognized that there can be much conflict between ex-partners after divorce and that conflict is harmful for children. If the effects of conflict are aggravated by having frequent contact with the nonresident parent, greater involvement of fathers, however 'fair' this may seem, may not be wise from the perspective of the child. Such a finding would support proposals that visiting arrangements or co-parenting be made conditional on how successful parents are in working out their struggles (Spruijt, de Goede and Vandervalk, 2004). Our findings may also be used to inform initiatives that try to design visiting arrangements with a father in such a way that a child is not exposed to interparental conflict while maintaining high-quality ties to both parents.

The new data were collected in the Netherlands. The Netherlands is a country with a divorce rate that is similar to that in other western European countries (Kalmijn, 2007). Like in some other countries, there is a fathers' rights movement in the Netherlands, which advocates better custody and visiting arrangements for fathers based on the reasoning that gender roles have become more egalitarian over time. Policies have changed in the Netherlands in 1998, and this has resulted in more frequent visits of children to divorced fathers (Spruijt, 2006). Additional policy changes in 2009 further strengthened the ideal of role sharing but also encouraged divorced parents to engage in conflict management therapy when needed. The practice of co-parenting has become more common, although it still represents a minority of the cases: about one in five of recently divorced families had some form of co-parenting (Spruijt and Duindam, 2009; De Graaf, 2011; Westphal, Poortman and

van der Lippe, 2014). Currently, co-parenting is the default arrangement, but most divorces in the present data occurred before this was changed (in 2009). In Flanders, where co-parenting and joint custody have become more common over time as well, the effect of interparental conflict on the likelihood of co-parenting has declined, suggesting that many high-conflict couples currently try out some form of co-parenting (Sodermans, Matthijs and Swicegood, 2013). If the interaction hypothesis that we test were valid, such a development would give cause for concern.

Hypotheses

The interaction hypothesis argues that the more contact there is between the child and the nonresident father, the more negative the impact of interparental conflict on children's well-being (Amato and Rezac, 1994). We thus expect an interaction effect between contact and conflict. Because depressive symptoms are the outcome variable, the interaction should be positive. There are several theoretical reasons why we would expect this interaction effect. The first reason has to do with exposure. If there is frequent contact with the divorced father, there will probably also be more contact between the ex-partners. This is especially true for young children who have to be brought back and forth. Even for older children—our study is about 14-year-olds—there may be more contact between ex-partners if there is more contact with the father. Contact with a divorced father means that parents have to talk with each other to arrange practical matters. Similarly, when children live in two households, the relationship between ex-partners continues to some extent because parents have to communicate about how to organize co-parenting. As a result, the ex-partners will see each other more often, and the child will be exposed to their conflicts more often.

A second reason has to do with conflicting loyalties. When parents have conflicts with each other, children are more likely to experience loyalty conflicts (Buchanan, Maccoby and Dornbusch, 1991; Walper *et al.*, 2004; Amato and Afifi, 2006). The feeling of being caught in the middle is in turn associated with children's well-being and, hence, mediates the effect of interparental conflict on child well-being (Franck and Buehler, 2007; Schrodt and Shimkowski, 2013). The loyalty conflicts that children experience will also be dependent on how much interaction there is between the child and the father (Leathers, 2003). When there is co-parenting or frequent contact with the nonresident father, there is the possibility that children suffer more from these loyalty conflicts (Buchanan, Maccoby and Dornbusch, 1991; Afifi and Schrodt, 2003). Continued contact with both parents keeps the father–mother–child triangle intact, and this leads to tension when one of the ties in the triangle—between father and mother—is strained. If ties with the father are broken off—however difficult that may be for other reasons—feelings of loyalty toward one parent will be weaker, and the tension is relieved.

In examining the interaction of contact and conflict, it is important to also examine another aspect of postdivorce relationships, namely, the quality of the tie between the father and the child. For a variety of reasons, contact frequency and quality may not be similar. If relationships are good with the father, there may still be limited contact, for example, because fathers are busy at work, because mothers may not encourage visits with the father, or because geographical constraints play a role. Similarly, there may be a good visiting arrangement from the perspective of the father, while the child does not evaluate the relationship as positively as the father does. For these reasons, it is instructive to examine an interaction between father–child contact and the quality of the father–child relationship. One would expect a positive effect of contact with the father on child well-being when the relationship is good, but a negative effect of contact when the relationship is poor (Vanassche *et al.*, 2013). When depressive symptoms are the outcome, we would thus expect a negative interaction effect between perceived quality and contact frequency.

There is remarkably little research on the interaction hypothesis (Adamsons and Johnson, 2013). The most widely cited study on the topic was done with survey data from the United States in the late 1980s. In this study, Amato and Rezac (1994) found a significant positive interaction between interparental conflict and contact with the nonresident father on the problem behavior of boys (aged 5–18 years), in line with the interaction hypothesis. In a more recent analysis of representative survey data among parents and their 6–7-year-old children in Australia, Baxter, Weston, and Qu (2011) found that the association between parental hostility and child well-being was only present for children who had weekly contact with the nonresident father, not for children who had irregular contact. There are also a few psychological studies that have addressed the interaction hypothesis. These are usually based on smaller and less-representative samples, but the measurement of contact and conflict is more elaborate. Findings here are inconclusive because no interactions were tested (Laumann-Billings and Emery, 2000; Fabricius and Luecken, 2007). The interaction hypothesis has rarely been examined for joint physical custody or co-parenting. An exception can be found in one of the earlier pioneering studies of loyalty conflicts by Buchanan, Maccoby, and Dornbusch (1991). Buchanan *et al.* found that 'negative

co-parenting (discord and hostility) is more strongly related to being caught between parents for adolescents in dual residence than adolescents in sole residence' (p. 1019). This finding is in line with the interaction hypothesis.

Data, Measures, and Design

The data were collected in four countries in England, Germany, the Netherlands, and Sweden in 2010. Questions on interparental conflict were only asked in the Netherlands. About 100 secondary schools were randomly chosen per country, and two (randomly chosen) classes in each school were used (Kalter *et al.*, 2014). In the Netherlands, the focus was on third graders of secondary school, and these children were about 14 years old. Schools with high proportions of immigrants were systematically oversampled via a stratified sampling scheme, but the analyses will be weighted to get a representative sample.

To solve the problem that schools may not be willing to participate, a replacement strategy was used, where each school was matched to a replacement school that was to be approached when the initial school did not respond. This is similar to the procedures used by other international school research such as PISA and TIMMS. After replacement, response at the school level was 91.7 per cent in the Netherlands. The sample is in principle representative of the Dutch population of that age, assuming that initial refusals of *schools* were not highly selective with respect to school compositional characteristics. The advantage of the current sample compared with population surveys is that there is little *individual* nonresponse or refusal. Individual participation of eligible students was above 90 per cent (CILS4EU, 2014). The original Dutch data contained 4,963 children. From these, we select children whose parents were divorced or separated and who were living with the biological mother. Respondents who only live with the father or who live with neither parent are excluded ($n = 136$). If there is no mother in the household, the dynamics of conflict and the role of father–child contact will be different. This leaves a total of $n = 873$ children with divorced parents to analyze (Table 1).

Measures

Contact with the biological father was assessed by asking how often the child had face-to-face contact with the father. We coded the answering categories to approximate frequencies as follows: daily (365), one or more times per week (104), one or more times per month (24), less often (4), and never (0). To avoid the skewness in this variable, we logged the frequencies. To facilitate the conversion, no contact was recoded to 1. A dichotomous version of the contact variable was also examined. All children regardless of living arrangement were asked the question on contact frequency. This means that we also have a contact measure for children in a co-parenting arrangement, a feature that will be used later in the analysis.

Co-parenting is defined on the basis of living arrangements and not on legal arrangements (as in joint custody) or on actual parenting tasks (as in joint parenting). We first asked about who was living in the child's household. If the child was living in two households, she/he was first asked about the household where the mother lived. Next, she/he was asked who was living in the second household and how often he/she lived there. Co-parenting is coded 1 if the child was living about half of the time (or more) in a second home with the father (0 for all other cases). Some children indicated that they lived with the father in the first-mentioned

Table 1. Weighted frequencies for living arrangements and contact with father for children aged 14 of divorced parents

Living situation	Per cent		Co-parenting	Per cent		Contact	Per cent
Lives with mother	87.4	→	No co-parenting	78.1	→	Daily	3.5
Lives with father but not with mother	6.4		Co-parenting	21.9		Weekly	31.9
			Total	100.0		Monthly	32.7
Lives with no parent	6.3						
			Unweighted *N*	873		Less often	14.3
Total	100.0						
						Never	17.8
Unweighted *N*	1009						
						Total	100.0
						Unweighted *N*	708

Note: Percentages weighted.

Table 2. Descriptive information on variables used in the analyses: boys and girls (aged 14 years) of divorced parents (weighted means and SDs)

	Boys			Girls		
Variable	*N*	M	SD	*N*	M	SD
Depressive symptoms (standardized in models)	392	0.29	0.72	480	−0.23	0.75
Interparental postdivorce conflict	339	−0.13	0.78	414	0.11	0.86
Father–child contact frequency	391	3.52	1.79	479	3.00	1.89
Rarely or never contact with father (1 = never or less than about once a month, 0 = otherwise)	391	0.23		479	0.35	
Co-parenting (living about half the time with the mother and about half the time with the father)	393	0.19		480	0.18	
Father–child quality (1 = not well at all, 2 = not well, 3 = well, 4 = very well; not asked if never contact)	339	3.38	0.73	380	3.07	0.84
Mother–child quality (1 = not well at all, 2 = not well, 3 = well, 4 = very well; not asked if never contact)	383	3.52	0.60	476	3.49	0.63
Mother re-partnered (1 = stepfather in the household, 0 = otherwise)	393	0.39		480	0.35	
Educational level						
Lower vocational	393	0.30		480	0.31	
Lower general	393	0.37		480	0.34	
Intermediate general	393	0.22		480	0.20	
Academic track	393	0.12		480	0.16	
Material goods (index of own pc, internet at home, own room, smartphone, own television, game console)	381	4.93	0.97	470	4.47	1.18
Immigrant (parent born abroad, only non-Western origins)	393	0.33		480	0.30	
Family status (scale of father's education (1–3 scale), mother's education (1–3 scale), father's ISEI, mother's ISEI; items standardized; scale is average of valid items) (ISEI applies to current or last occupation)	391	0.01	0.70	480	−0.05	0.70

household and with the mother in the second household. These are also considered as co-parenting ($n = 24$). In total, there are $n = 162$ children with a co-parenting arrangement. Remember that the sample is limited to children who live with at least their mother (see above).

Conflict is measured by a question about how often the following things occurred between the child's *biological* parents: (a) fierce discussions between parents, (b) parents strongly blamed each other, (c) parents refused to talk to each other, (d) quarrels between parents escalated. Answering categories were: always (4), often (3), sometimes (2), and never (1). As Table 2 shows, the items contain missing values. To solve this, we standardized the items so that each item has the same mean and standard deviation. The scale is then constructed as the average of the valid items. This procedure assumes that a person who has a missing value on one question, would have answered that item the same way that she/he answered on the other questions. This seems a reasonable assumption. The reliability of the scale is excellent ($\alpha = 0.86$).

Quality is measured by asking children how well they get along with their father and their mother. Children could answer on a four-point scale: very well (4), well (3), not so well (2), and not well at all (1). The scale was used as a linear variable. The question on the quality of the father–child relationship was not asked when there was no contact. For that reason, this variable was included in only one model. We include the quality of the mother–child relationship in all models because past research has shown that this is one of the more important predictors of child well-being after divorce (King and Sobolewski, 2006).

Subjective well-being was measured with questions about depressive feelings: (a) I worry a lot, (b) I feel anxious, (c) I feel depressed, and (d) I feel worthless. Answering categories were: often true (4), sometimes true (3), seldom true (2), and never true (1). The reliability is good ($\alpha = 0.78$). The scale is constructed by first standardizing the items and then taking the mean.

Control variables are included that are generally believed to affect well-being and that might also be

correlated to conflict or contact: immigrant status, school track, whether a stepfather is present, family socioeconomic status, and an index of consumer goods the child has. The measurement details, as well as the means and standard deviations, are presented in Table 2. The child's age at divorce is an important variable predicting father–child contact after divorce (Cheadle *et al.*, 2010; Mortelmans *et al.*, 2011), but no data are present on this. Missing values were not imputed in the main tables, but in Table A1, we present results where missing values were imputed using multiple multivariate imputation procedures. These results are presented only for the key models and appear to be virtually identical.

Models

The variables are analyzed with ordinary least squares (OLS) regression models, where the standard errors are corrected for the nesting of children in schools using the cluster option in STATA. The data are weighted to correct for the oversampling of schools with high proportions of immigrants. The dependent variable (which consists of the mean of the standardized items) is standardized again so that effects of dummy variables can be interpreted in terms of an effect size, the difference between groups expressed in standard deviations of Y (Borenstein *et al.*, 2009). The *t*-tests are identical after this transformation. All models are estimated separately for boys and girls because one previous study found gender differences in the interaction between contact and conflict (Amato and Rezac, 1994). To test the hypothesis, we interact father–child contact and postdivorce conflict. The linear variables involved in the interactions are centered around the means so that the main effects in the interaction models have a natural interpretation: they apply to the 'average' child. Contact and co-parenting are not used as parallel independent variables. Instead, one model examines the effect of co-parenting, and a second model examines the effect of contact if there was no co-parenting. In a separate model, we check if the interactions that we find are possible because of the influence of an interaction of father–child contact and the perceived quality of the father–child relationship, as suggested in the theory section.

Results

In Table 1, we first discuss the living arrangements and the degree to which children have contact with a divorced father (Table 1). The large majority of children live with their mother, and of those who live with their mother, 22 per cent have a co-parenting arrangement. This corresponds well with earlier studies for the Netherlands (Spruijt and Duindam, 2009; De Graaf, 2011). Note that co-parenting here is based not on legal arrangements (as in 'joint custody') nor on the division of actual parenting responsibilities (as in 'joint parenting'). It is simply a measure of living arrangements: the child lives approximately half the time with one parent and half the time with the other. We next look at contact with the father when there was no co-parenting. We see that the distribution is heterogeneous. Many children see their father weekly, but there is also a substantial group of children who see their father less than monthly (14 per cent) or never (18 per cent).

Table 3 presents descriptive statistics on the individual items for postdivorce conflict. More than a quarter of the parents have frequent or continuous fierce arguments with each other. In about one in five of the cases, parents are strongly blaming each other. Many parents also have periods during which they refuse to talk to each other. Quarrels that escalate are not so common, but they still occur 'often' or 'always' in a substantial minority of the cases (13 per cent). While the numbers suggest that conflict is common, we also see a substantial group of divorced parents who—according to the children—never have conflicts with each other. More specifically, 23 per cent of the children report 'never' on all four items. In sum, there is much heterogeneity in interparental conflict. The correlation between contact and conflict is modest ($r = -0.19$), which means that it is relatively easy to separate their effects on child well-being.

Table 3. Frequencies for interparental conflict between parents as reported by boys and girls aged 14 of divorced parents

Item	Always	Often	Sometimes	Never	*N*	Correlation item-scale
Fierce arguments between your parents	5.1	23.9	43.3	27.7	733	.86
One of your parents strongly blaming the other	5.3	17.0	38.8	38.9	684	.87
Your parents refused to talk to each other for some time	10.0	14.0	26.1	50.0	679	.82
Quarrels between your parents escalating	4.4	7.6	20.7	67.3	667	.82

Note: Percentages weighted.

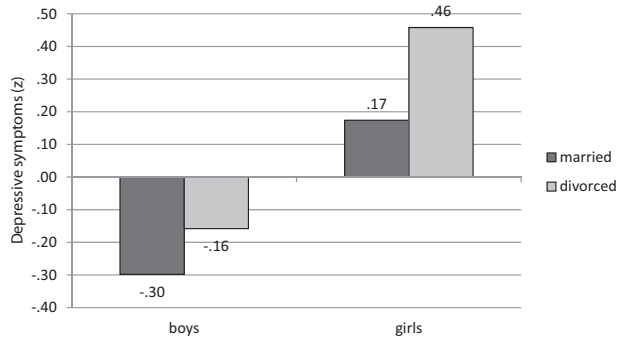

Figure 1 Association betweeen parental divorce and depressive feelings

Before we analyze how interparental conflict and father–child contact affect children's depressive feelings, we assess the net statistical effect of parental divorce on this outcome by adding the children of married parents to the sample. The results in Figure 1 are based on a regression model that includes the control variables also used in the rest of the analysis (family status, educational track, immigrant status, and material goods). The control variables are set at the mean when calculating the predicted values. We see three effects in Figure 1. First, girls have more depressive feelings than boys, in line with earlier studies, which showed that especially at ages 13–16, girls are more depressed on average than boys (Twenge and Nolen-Hoeksema, 2002). Second, children of divorced parents feel more depressed than children of married parents, in line with longitudinal research (Amato and Anthony, 2014). Third, the effect of divorce is more negative for girls than for boys (the three-way interaction has a *P*-value of 0.08). This result is consistent with an earlier panel study of children in the Netherlands, which found that during adolescence, a gender difference in the divorce effect begins to emerge (Oldehinkel *et al.*, 2008). Effect sizes of divorce are modest (Cohen's $d = 0.28$ for girls and $d = 0.14$ for boys).

We now turn to the regression results for children of divorced parents, which are presented in Table 4 (boys) and Table 5 (girls). We start with the main effects in Model 1. There are strong and significant effects—effects in the statistical sense—of interparental conflict. The more conflicts parents have after divorce, the more depressive feelings children have. The standardized linear effects for depressive feelings are $\beta_{\text{standardized}} = 0.22$ (for boys) and 0.25 (for girls). The effects of interparental conflict are similar for boys and girls; the three-way interaction is insignificant ($t = 0.04$, $P = 0.97$). We see mixed main effects of co-parenting. There is an effect on depressive feelings for boys, but the *P*-values are just above the 5 per cent cutoff point. Boys who partly live with their father and partly with their mother report fewer depressive symptoms than boys who only live with their mother. For girls' depressive feelings, co-parenting does not make a difference. We also find a significant effect of the quality of the mother–child relationship. The better the relationship with the mother, the fewer depressive feelings children of divorced parents report.

Next, we look at interactions between co-parenting and interparental conflict (Model 2). The interaction effects are insignificant for both genders. For boys, however, the direction of the interaction is in line with expectations, and the magnitude is substantial. The effect of interparental conflict on boy's depressive feelings appears stronger when there is co-parenting. For girls, the interaction is insignificant and small.

In subsequent models, the focus is on the amount of contact between fathers and children. These effects are estimated for children who do not have a co-parenting arrangement. First, we see that the amount of contact between the child and his or her (nonresident) father has virtually no effect on children's depressive symptoms (Model 3). This confirms conclusions from past research that there is no *overall* effect of father–child contact after divorce on children's depressive symptoms (Amato, 2001). Next, we look at interactions of contact frequency and interparental conflict (Model 4). For boys, we find a significant interaction. When there is more contact between the child and the nonresident father, the effect of interparental conflict on depressive feelings is stronger in the sense that conflict increases depression more strongly. The magnitude of this interaction relative to the main effect is substantial: for each standard deviation increase in contact, there is an increase in the effect of conflict on depression by 29 per cent [(0.154/1.79)/0.292 = 0.29].

Table 4. Weighted OLS regression of depressive symptoms of boys in divorced families

	Model 1 full sample	Model 2 full sample	Model 3 w/o co-parenting	Model 4 w/o co-parenting	Model 5 w/o co-parenting	Model 6 w/o co-parenting	Model 7 full sample
Postdivorce conflict	0.284*	0.260*	0.278*	0.292*	0.186	0.396*	0.294*
	(0.01)	(0.03)	(0.01)	(0.00)	(0.11)	(0.00)	(0.00)
Co-parenting	−0.284	−0.218					
	(0.08)	(0.19)					
Co-parenting × Conflict		0.191					
		(0.34)					
Contact frequency father			0.078	0.048	0.057		0.018
			(0.09)	(0.22)	(0.35)		(0.62)
Contact × Conflict				0.154*	0.228*		0.162*
				(0.00)	(0.03)		(0.00)
Rarely contact father						−0.230	
						(0.17)	
Rarely contact × Conflict						−0.385	
						(0.05)	
Quality father–child					−0.117		
					(0.30)		
Quality × Contact					−0.030		
					(0.78)		
Quality mother–child	−0.270*	−0.259*	−0.230	−0.184	−0.181	−0.200	−0.213
	(0.02)	(0.02)	(0.06)	(0.14)	(0.17)	(0.11)	(0.05)
Mother new partner	0.007	0.017	−0.015	−0.033	−0.036	−0.031	0.024
	(0.96)	(0.90)	(0.93)	(0.83)	(0.83)	(0.84)	(0.85)
Family status	−0.101	−0.096	−0.138	−0.182	−0.215*	−0.157	−0.184*
	(0.22)	(0.23)	(0.17)	(0.07)	(0.05)	(0.13)	(0.03)
Lower general track	0.142	0.140	0.132	0.167	0.197	0.146	0.163
	(0.37)	(0.39)	(0.48)	(0.35)	(0.33)	(0.42)	(0.29)
Intermediate general track	0.323*	0.337*	0.435*	0.500*	0.570*	0.472*	0.400*
	(0.03)	(0.03)	(0.02)	(0.01)	(0.01)	(0.01)	(0.00)
Academic track	0.411*	0.416*	0.561*	0.597*	0.661*	0.560*	0.423*
	(0.02)	(0.02)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)
Material goods	−0.165*	−0.168*	−0.201*	−0.186*	−0.195*	−0.196*	−0.142*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.04)
Immigrant	−0.116	−0.106	−0.030	−0.131	−0.247	−0.071	−0.150
	(0.51)	(0.55)	(0.87)	(0.42)	(0.15)	(0.68)	(0.32)
Constant	1.451*	1.415*	1.426*	1.226*	1.270*	1.381*	1.111*
	(0.00)	(0.00)	(0.01)	(0.02)	(0.03)	(0.01)	(0.01)
Observations	329	329	263	263	225	263	328
Adjusted R^2	0.134	0.134	0.135	0.186	0.205	0.147	0.175
BIC	911.3	916.1	755.9	744.4	650.5	756.7	895.5

Note: *P*-values in parentheses. Dependent variable standardized. Contact, conflict, and quality centered. Model 5 adds quality father–child, which is missing for cases without any father–child contact. Reference for schooling is lower vocational (the lowest category).

*$P < 0.05$.

For girls, the interaction effect was not significant. Although the samples are not large, the magnitude of the interaction for girls suggests that even with a larger sample, it would not have been significant. We also compared the interaction effects for boys and girls and—based on a test of the three-way interaction—found a significant difference between the two ($t = 2.18$, $P = 0.03$).

To see how robust the interaction is, we examine three additional models. First, we control for one additional interaction, i.e., between father–child contact and the quality of the tie between the child and the father (Model 5). We see that the quality of the father–child relationship affects child well-being, but only for girls. The better the relationship with the father, the

Table 5. Weighted OLS regression of depressive symptoms of girls in divorced families

	Model 1 full sample	Model 2 full sample	Model 3 w/o co-parenting	Model 4 w/o co-parenting	Model 5 w/o co-parenting	Model 6 w/o co-parenting	Model 7 full sample
Postdivorce conflict	0.296*	0.312*	0.315*	0.309*	0.248*	0.211*	0.288*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)	(0.05)	(0.00)
Co-parenting	0.062	0.054					
	(0.72)	(0.75)					
Co-parenting × conflict		−0.111					
		(0.61)					
Contact frequency father			−0.022	−0.020	−0.003		0.003
			(0.54)	(0.57)	(0.96)		(0.93)
Contact × conflict				−0.010	−0.040		−0.017
				(0.76)	(0.57)		(0.58)
Rarely contact father						0.215	
						(0.12)	
Rarely contact × conflict						0.228	
						(0.14)	
Quality father–child					−0.217*		
					(0.01)		
Quality × contact					0.055		
					(0.37)		
Quality mother–child	−0.279*	−0.280*	−0.267*	−0.267*	−0.279*	−0.276*	−0.284*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)
Mother new partner	−0.015	−0.014	−0.067	−0.067	−0.049	−0.051	−0.017
	(0.90)	(0.91)	(0.67)	(0.66)	(0.76)	(0.73)	(0.89)
Family status	0.015	0.016	−0.127	−0.128	−0.159	−0.115	0.018
	(0.87)	(0.86)	(0.26)	(0.25)	(0.19)	(0.30)	(0.84)
Lower general track	0.103	0.111	0.221	0.227	0.292	0.288	0.114
	(0.44)	(0.42)	(0.20)	(0.18)	(0.12)	(0.08)	(0.41)
Intermediate general track	−0.014	−0.016	−0.029	−0.023	0.116	0.074	0.001
	(0.93)	(0.93)	(0.84)	(0.88)	(0.44)	(0.66)	(0.99)
Academic track	0.297	0.299	0.465*	0.468*	0.574*	0.511*	0.308
	(0.07)	(0.07)	(0.02)	(0.03)	(0.02)	(0.02)	(0.06)
Material goods	−0.105	−0.106	−0.153*	−0.153*	−0.132	−0.151*	−0.106
	(0.07)	(0.06)	(0.01)	(0.01)	(0.05)	(0.00)	(0.07)
Immigrant	−0.175	−0.177	−0.152	−0.147	−0.108	−0.152	−0.180
	(0.21)	(0.20)	(0.31)	(0.32)	(0.58)	(0.28)	(0.16)
Constant	1.720*	1.723*	1.839*	1.835*	1.651*	1.740*	1.741*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	410	410	329	329	265	329	409
Adjusted R^2	0.120	0.119	0.161	0.158	0.170	0.181	0.118
BIC	1142.2	1147.7	903.3	909.0	749.1	900.1	1145.6

Note: *P*-values in parentheses. Dependent variable standardized. Contact, conflict, and quality centered. Model 5 adds quality father–child, which is missing for cases without any father–child contact. Reference for schooling is lower vocational (the lowest category).

*$P < 0.05$.

fewer depressive symptoms girls have. This gender difference is in line with earlier American research showing that closeness to divorced fathers was associated with fewer internalizing problems among daughters but not among sons (Stamps, Booth and King, 2009). Is contact with the father more 'beneficial' when the relationship with him is better? This does not appear to be the case: the interaction between quality and contact is insignificant for both genders. Moreover, the significant original interaction between father–child contact and interparental conflict remains significant when this interaction is added to the model (compare Models 4 and 5). The interaction effect is even stronger in Model 5. This may have to do with the fact that Model 5 does not include children who never see their father (in which case, the quality measure was missing).

In Model 6, we replace the linear contact measure and its interaction by a dummy variable for rarely contact versus frequent contact. This variable reveals an insignificant negative main effect and has a significant negative interaction with interparental conflict ($P = 0.05$). The effect of conflict in Model 6 is positive and applies to fathers who have frequent contact ($b = 0.396$). Boys who have frequent contact with their father are negatively affected by conflict. The interaction is $b = -0.385$, which implies an effect of $b = 0.396 - 0.385 = 0.011$ when there rarely is contact. Hence, conflict does not have a negative effect on boys' depressive symptoms when they hardly see their father.

So far, contact and co-parenting have been studied 'sequentially': one model examines the effect of co-parenting for the full sample, a second model examines the effect of contact if there was no co-parenting. In one extra analysis in Model 7, we combined the measures of co-parenting and contact by looking at the frequency of contact for all children (contact was also reported for children with co-parenting). This approach assumes that co-parenting and contact are parallel aspects of one underlying dimension. The interaction effect between contact and conflict for boys is still significant and for girls still insignificant (Model 7).

Conclusion

A well-known finding in the literature is that exposure to interparental conflict during marriage is harmful for children's well-being (Cummings and Davies, 2002). A corollary of this finding is that parents' conflicts after divorce—postdivorce conflict—will also have a negative effect on child well-being. The magnitude of this effect, however, may depend on the way in which the former partners continue their relationship after divorce. One would expect that former partners will have more contact with each other when there is more contact between the child and the nonresident father. The more the relationship between ex-partners continues, the more children may be dragged into their conflicts, and the more children's well-being will be affected. Moreover, a high degree of conflict between parents can lead to feelings of being caught in the middle, especially when the child continues to have strong ties to and regular contact with both parents.

In this study, we examined this interaction hypothesis in two different ways: by interacting the effects of interparental conflict with co-parenting and with the amount of contact between the nonresident father and child. We first found that interparental conflict is negatively associated with the child's well-being, whereas father–child contact itself had no effect. When testing the interaction, we found some supportive evidence. Interparental conflict has a more negative effect on the well-being of boys when there is more contact between the child and the nonresident father. No interactions were found for girls. For co-parenting, the evidence was less supportive, even though the magnitude and direction of the effect were supportive, at least for boys. These findings partly support the interaction hypothesis. Note that the conclusion is limited to boys who were about 14 years old. It is possible that main effects, interaction effects, as well as gender differences therein are different for children of younger ages.

This conclusion is based on cross-sectional data, and so, we have to be concerned about omitted variable bias and reverse causation. We note, however, that the main effects of divorce on depressive feelings in our study are similar to those found in panel studies (Oldehinkel *et al.*, 2008; Amato and Anthony, 2014). The more relevant question is whether the interaction effects can also be biased. Reverse causation is a possibility. When children have emotional or behavioral problems, divorced parents may have more conflict with each other. However, a previous cross-lagged panel study found that when children have emotional or behavioral problems, divorced fathers tend to have *less* contact with the child (Hawkins, Amato and King, 2007). Hence, reverse causation cannot explain why the problems for the child would be worse when there is more contact between father and child.

Why are only boys in divorced families affected by the interaction of conflict and contact and not girls? Although this finding is consistent with one earlier American study (Amato and Rezac, 1994), it is not immediately clear how we can explain this difference. In past research on gender differences, it was originally believed that boys are more vulnerable to interparental conflict than girls, but later studies showed there are no gender differences in this respect (Davies and Lindsay, 2001; Rhoades, 2008). There has also been the suggestion that girls would be more observant of and more likely to intervene in conflict between parents, but the evidence on this hypothesis turned out negative as well (Davies and Lindsay, 2001). Finally, research has shown that feelings of being 'caught in the middle' or conflicting loyalties are also similar for boys and girls (Amato and Afifi, 2006). These findings suggest that the explanation of the gender difference in the interaction effect must be sought elsewhere. One possible explanation lies in gender identification. Boys may be more attached to their father than girls and perceive the conflicts between parents more often as a threat to their own relationship with the father. This could occur especially when there is frequent contact, in which case, there is more to lose,

and hence, more to worry about. Keep in mind, however, that in other respects, girls were more strongly affected. The effect of divorce itself on depressive symptoms was more negative for girls, and the effect of father–child quality on well-being among children of divorced parents was also stronger for girls. Both these findings are in line with previous studies Oldehinkel *et al*., 2008).

Why does the interaction effect apply less clearly to co-parenting? First, we have to realize that the number of co-parenting families is relatively small so that there is less power to test the interaction hypothesis for co-parenting than there is for contact. The interaction is in the expected direction and not small. Second, there are possible substantive reasons. Co-parenting may be a safer and more stable arrangement for the child than a visiting arrangement. A certain amount of conflict between parents may still be unpleasant, but the child may not believe that it will change his or her situation. Hence, the child's feelings of insecurity may be affected less when a co-parenting arrangement is made. Conflict may work in a different way when there is a visiting arrangement because such arrangements can be changed more easily when things do not work out. Finally, co-parenting may also require less communication between the parents because it more often is a well-structured arrangement.

The interaction effect of interparental conflict and father–child contact on boys' depressive symptoms can be interpreted in two ways. Our interpretation in this article was that interparental conflict increases depressive feelings more when there is much father–child contact. Contact moderates the effects of postdivorce conflict. Another interpretation is that father–child contact can be beneficial for the child as long as there is little interparental conflict. Conflict moderates the effects of father-child contact. Both old and recent meta-analyses on the involvement of divorced fathers showed that the main effect of father–child contact on child well-being was absent (Amato and Gilbreth, 1999; Adamsons and Johnson, 2013). Our study suggests that this null-effect may hide opposing influences. Detailed calculations show that when there is no conflict between former partners after divorce, contact with the resident father is beneficial, at least for the well-being of boys. More precisely, the effect of father–child contact on boys' depressive feelings when postdivorce conflict between parents is at its minimum is $\beta_{\text{standardized}} = -0.24$ (based on Model 4).[1] This puts a positive spin on conclusions from meta-analyses that father–child contact *in general* is not relevant for child well-being. For girls, contact with the father has no effect, but a good-quality tie is beneficial for their well-being. This too, is a more positive conclusion about the role of the father after divorce.

Note

1. Calculated as $+.048 + .154 \times -1.197 = -.136$, where -1.197 is the minimum level of conflict. This effects translates into a standardized effect of $-.136 \times (1.79/1.0) = -.24$.

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Appendix

Table A1. Weighted OLS regression of depressive symptoms with multiple imputation

	(1) Model 2 men	(2) Model 4 men	(3) Model 7 men	(4) Model 2 women	(5) Model 4 women	(6) Model 7 women
Postdivorce conflict	0.239*	0.259*	0.277*	0.223*	0.208*	0.207*
	(0.04)	(0.01)	(0.00)	(0.01)	(0.02)	(0.01)
Co-parenting	−0.137			0.153		
	(0.39)			(0.37)		
Co-parenting × Conflict	0.225			−0.051		
	(0.28)			(0.81)		
Contact father		0.063~	0.028		0.047	0.058**
		(0.09)	(0.41)		(0.21)	(0.08)
Contact × Conflict		0.139*	0.149*		−0.012	−0.011
		(0.01)	(0.00)		(0.76)	(0.74)
Quality mother–child	−0.200*	−0.149	−0.163**	−0.328*	−0.327*	−0.333*
	(0.03)	(0.17)	(0.09)	(0.00)	(0.00)	(0.00)
Quality father–child	−0.102	−0.130	−0.092	−0.149*	−0.203*	−0.181*
	(0.26)	(0.17)	(0.31)	(0.03)	(0.01)	(0.01)
Mother new partner	−0.024	−0.052	−0.009	−0.011	−0.039	−0.002
	(0.84)	(0.73)	(0.94)	(0.93)	(0.79)	(0.98)
Family status	−0.068	−0.144	−0.138**	0.045	−0.056	0.047
	(0.41)	(0.14)	(0.10)	(0.58)	(0.54)	(0.56)
Lower general	0.154	0.111	0.166	0.122	0.172	0.113
	(0.29)	(0.49)	(0.25)	(0.38)	(0.29)	(0.43)
Intermediate general	0.233	0.394*	0.292*	0.033	0.028	0.033
	(0.11)	(0.02)	(0.03)	(0.81)	(0.84)	(0.82)
Academic track	0.289**	0.425*	0.304**	0.315*	0.385**	0.297**
	(0.10)	(0.02)	(0.05)	(0.05)	(0.05)	(0.07)
Material goods	−0.143*	−0.167*	−0.131*	−0.056	−0.093	−0.065
	(0.03)	(0.02)	(0.04)	(0.34)	(0.11)	(0.28)
Immigrant	−0.287**	−0.295*	−0.289*	−0.228**	−0.197	−0.218**
	(0.06)	(0.04)	(0.03)	(0.09)	(0.17)	(0.08)
Constant	1.154*	1.086*	0.939*	1.561*	1.697*	1.646*
	(0.01)	(0.03)	(0.03)	(0.00)	(0.00)	(0.00)
Observations	392	318	392	480	392	480

Note: Dependent variable standardized. *P*-values in parentheses. Estimates based on 50 imputations for each sex. Imputations were done with *mi impute* in STATA using chained equations. In the imputations, the dependent variable and the interactions were also used. There were no missings on the dependent variable. Four additional variables were used to impute missing values: subjective general health (1–4), a scale for parental support (four items, $\alpha = .86$), a scale for positive family climate at home (five items, $\alpha = .75$), and a scale for parental control (three items, $\alpha = .67$). These were not used in the substantive models.

**$P < 0.10$, *$P < 0.05$