Parents' Relationship quality, Parental Divorce and Children's Well-being.

Introduction

One of the most discussed topics in the literature on divorce has been whether the effects of divorce are causal or not. Several studies have tried to determine which part of the effect of parental divorce is causal and which part is indirect or spurious (see Sigle-Rushton & McLanahan, 2004). In other words, are the differences between children from intact families and children from divorced families explained by divorce *per se* or by preceding family characteristics such as parental conflict?

Over the last two decades, several American and Canadian studies have documented a more nuanced explanation of the causal process (Amato, Loomis and Booth, 1995; Hanson, 1999; Jekielek, 1998; Strohschein, 2005). Divorce may benefit children that live in high-conflict marriages, because it takes them away from a negative and stressful home environment (Amato, Loomis and Booth, 1995; Booth and Amato, 2001). In contrast, however, the dissolution of low-conflict marriages may have negative effects on children's lives because it represents an unexpected and unwelcome event, which children are likely to experience as stressful (Amato, Loomis and Booth, 1995). Divorce under these circumstances represents a major change in what may otherwise have been a secure and (from a child's perspective) seemingly well-functioning family (Booth and Amato, 2001).

Despite the importance of these findings, past research on the interaction effects between parental divorce and parental conflict has several limitations. To our knowledge only one study (Fomby & Osborne 2010) has studied the interaction effect on very young children. It is reasonable to argue that the interactive process between parental divorce and parental conflict may differ depending on the age of the child when their parents separate. Also, past research has tended only to study married couples and not those in cohabiting unions (again with a few exceptions such as Fomby & Osborne 2010). Given the rise in cohabitation that has occurred across most developed societies it is important to include cohabiting couples in any analyses. The majority of studies have focused on the interactive effect of parental divorce and parents' relationship quality on children's psychological well-being and rarely have other dimensions such as children's cognitive ability been examined-but see Hanson (1999). To our knowledge all studies to date have used US or Canadian data and no European study has addressed this issue.

This paper aims to address these gaps in the literature using two waves of the Millennium Cohort Study (MCS), a nationally representative, longitudinal study of a British birth cohort that provides information of children's well-being before and after divorce. Following Fomby & Osborne (2010), we test the following hypotheses: (a) parents' relationship quality and parental divorce are unrelated processes that have independent effects on children (the independent effects hypothesis); (b) the apparent effect of parental divorce is explained by the effect of parent's relationship quality before divorce (the selection hypothesis); or (c) the effect of parental divorce on children depends on the quality of their parents' relationship before divorce (the interaction hypothesis).

The Sample

This study uses data from the first and third waves of the Millennium Cohort Study (MCS). The first sweep (MCS1) was carried out during 2001-2. The third survey was carried out mostly in 2006, when the children had reached age 5. For our analyses, we restrict the sample to those families where the parents were married or cohabiting at wave 1 were still married or cohabiting or were separated at wave 3. These restrictions gave a sample of 10877 families

Dependent variables

At the age 5 interview (wave 3), the children's mothers completed the Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1997) which covers different dimensions of children's behaviour such as externalizing problems and internalizing problems. The measure of the child's cognitive development comes from responses to the British Ability Scale tests which included a measure of the child's vocabulary abilities. The tests were administered by the interviewer in the home at the 5 year old interview.

Focal variables

Partnership Breakdown was measured at wave 3 and has two categories: 1-partnership breakdown between wave 1 and wave 3 (1238 children); 0-remained married or cohabiting (9749 children). Partnership quality was derived from the Golombok Rust Inventory of Marital State (Rust et al, 1990) which is a psychometric instrument for the assessment of marital discord and overall quality of a couple's relationship. At wave 1, four negative items from this scale were included, which were answered by the main respondent (in the main the mother): my partner doesn't seem to listen to me; sometimes I feel lonely even when I am with my partner; we can always make up quickly after an argument, and; I suspect we may be on the brink of separation. There also three positive items: my partner is usually sensitive to and aware of my needs; our relationship is full of joy and excitement, and; we can always make up quickly after an argument.

For all the items, there were several possible answers: 0) strongly agree; 1) agree; 2) neither agree nor disagree; 3) disagree; 4) strongly disagree and 5) can't say. Can't say responses were considered as missing information. To create an ordinal scale we included both the positive and the negative items, which involved reversing the answers to the negative items. For these items the answers are 0) strongly disagree; 1) disagree; 2) neither agree nor disagree; 3) agree; 4) strongly agree. Then we summed the answers to the seven items which produced a scale with a minimum of 0 and a maximum of 28. In our first model specification this continuous variable of parents' relationship quality is used. In our second model specification in which we create groups of families, we dichotomized parent's relationship quality:1) high quality that took values from 0 to 13 and, 2) low quality that took values from 14 to 28.

In future analyses, we will create two dimensions of partnership quality one derived from the positive items and another from the negative items.

Control variables

The control variables are measured at wave 1 and take into account several sociodemographic characteristics of the family including: child's ethnicity (white, Indian, Pakistani, black, mixed and other); educational qualifications of the mother (0- no qualifications; 1- NVQ level 1; 2- NVQ level 2; 3- NVQ level 3 and 4- NVQ level 4 or 5); age of the mother; equivalized family income in quintiles, total number of children in the household and sex of the cohort member (1-male and 0 female). We also included another control variable that measured "disruption in the family of origin" that takes a value of 1- when the mothers had experienced a parental divorce or separation, they never lived with parents or their parents never lived together and takes value 0-when their parents are still living together or had lived together until one parent had died.

Preliminary analytical strategy:

We use ordinary least-squares regression to estimate children's internalizing and externalizing problems and children's vocabulary test scores as a function of parental divorce and parents' relationship quality and other family and child characteristics. In order to evaluate the independent, selection and interaction hypothesis, we carry out two different model specifications. In the first specification, we introduce in the models, step by step, the variables parental divorce, parents' relationship quality and the interaction term between these two variables. In the second model specification, four groups of families are created: stable family with high parents relationship quality (N=871); divorced family with low relationship quality (N=248).

Results for the first model specification

Table 1 Coefficients of the effects of parental divorce and parents' relationship quality on externalizing and internalizing problems and vocabulary test scores at age 5.

Externalizing problems age 5				
Model 1	Model 2	Model 3	Model 4	
0.82***		0.54***	0.74***	
	0.12***	0.11***	0.12***	
			-0.02	
8995	8995	8995	8995	
	Internalizing problems age 5			
Model 1	Model 2	Model 3	Model 4	
0.33***		0.17**	-0.05	
	0.07***	0.07***	0.07***	
			0.020	
8192	8192	8192	8192	
Vocabulary test				
Model 1	Model 2	Model 3	Model 4	
-0.90**		-0.85**	-2,50***	
	-0.03	0.02	- 0.04**	
			0.18**	
9833	9833	9833	9833	
	0.82*** 8995 Model 1 0.33*** 8192 Model 1 -0.90**	Model 1 Model 2 0.82*** 0.12*** 0.995 8995 Internalizing Model 1 Model 2 0.33*** 0.07*** 8192 8192 Vocal Model 1 Model 2 -0.90** -0.03	Model 1 Model 2 Model 3 0.82*** 0.54*** 0.12*** 0.11*** 0.12*** 0.11*** 8995 8995 8995 8995 Internalizing problems ag Model 1 Model 2 Model 3 0.17** 0.07*** 0.07*** 8192 8192 8192 8192 Vocabulary test Model 1 Model 2 Model 3 -0.90** -0.03 0.02	

*p < 0.05, **p < 0.01, *** < 0.001

Controlling for income quintiles, parents type of union (married or cohabitation), mother's education, sex of the child and ethnic background, mother's parental divorce and number of children at home.

Externalizing problems: Models 1, 2 and 3 show that parental divorce and parents' relationship quality have independent effects on children's externalizing problems. Parents' relationship quality explains around the 30 % of the effect of parental divorce. Model 4 shows that there is no evidence for the interaction hypothesis.

Internalizing problems: Parental divorce and parents' relationship quality have independent effects on children's internalizing problems. Model 3 shows that parents' relationship quality explains around 50 % of the effect of parental divorce and Model 4 shows that for children's externalizing problems there is no evidence for the interaction hypothesis.

Vocabulary test scores: Parental divorce has an independent effect on vocabulary test scores and this effect is not explained by parents' relationship quality. In fact, parents' relationship quality does not have a significant effect on this outcome variable. However, unlike the situation with respect to psychological problems, model 4 shows that there is a positive interaction effect between parental divorce and parents' relationship quality which shows that the negative effect of parental divorce decreases when parental conflict increases.

Results for the second model specification

problems and vocabulary test scores at ag			
	Externalizing problems age 5		
	Model 1	Model 2	Model 3
Stable family at 9 months and high parents			
relationship quality	Ref	-0.91***	-0.78***
Stable family and low parents relationship			
quality	0.91***	ref	0.12
Divorced family and high parents relationship			
quality	0.78***	-0.12	Ref
Divorced family and low parents relationship			
quality	1.28***	0.36	0.48**
	Internalizing problems age 5		
	Model 1	Model 2	Model 3
Stable family at 9 months and high parents			
relationship quality	Ref	-0.57***	-0.19**
Stable family and low parents relationship			
quality	0.57***	ref	0.38**
Divorced family and high parents relationship			
quality	0.19**	-0.38**	Ref
Divorced family and low parents relationship			
quality	1.01***	0.54**	0.92***
	Vocabulary test		
	Model 1	Model 2	Model 3
Stable family at 9 months and high parents			
relationship quality	Ref	-0.16	1.25**
Stable family and low parents relationship			
quality	0.16	ref	1.41***
Divorced family and high parents relationship			
quality	-1.25**	-1.41***	Ref
Divorced family and low parents relationship			
quality	0.42	0.25	1.66***

Table 2 Coefficients for groups of families for externalizing and internalizingproblems and vocabulary test scores at age 5.

*p < 0.05, **p < 0.01, *** < 0.001

Controlling for income quintiles, parents type of union (married or cohabitation), mother's education, sex of the child and ethnic background, mother's parental divorce and number of children at home.

Externalizing problems: Model 1 shows that children whose parents had high relationship quality have more externalizing problems if their parents divorced. Model 1 also shows that children whose parents had a stable relationship have more externalizing problems if their parents had a poor relationship quality. Model 2 shows that children whose parents had a poor relationship quality do not have more externalizing problems if their parents divorced. Model 2 and 3 show that children whose parents had a stable relationship quality and those who have parents who had high relationship quality but they subsequently divorced have the same levels of externalizing problems. Model 3 shows that more externalizing problems are to be seen amongst children whose parents divorced and had poor relationship quality.

Internalizing problems: Model 1 shows that children whose parents had a high relationship quality have more internalizing problems if their parents divorced. Model 1 also shows that children in a stable relationship have more internalizing problems if their parents had poor relationship quality. Model 2 shows that children whose parents had poor relationship quality have more internalizing problems if their parents divorced. Models 2 and 3 show that children whose parents had a stable relationship and poor relationship quality have more internalizing problems than those whose parents had a high relationship quality but they subsequently divorced. Model 3 also shows that children whose parents divorced have more internalizing problems if their parents had a poor relationship quality.

Vocabulary test score: Model 1 shows that children whose parents had high relationship quality have a lower vocabulary test scores if their parents divorced. Model 1 also shows that children in stable relationships do not have lower vocabulary test scores if their parents had poor relationship quality. Model 2 shows that children whose parents had poor relationship quality have similar vocabulary test scores if their parents divorced. Model 3 shows children whose parents divorced but had high relationship quality have lower vocabulary test scores than children whose parents divorced but had high relationship quality. Model 3 shows that children whose parents divorced and had poor relationship quality. Model 3 shows that children whose parents divorced and had a high relationship quality have lower vocabulary test scores than children whose parents divorced and had a high relationship quality have lower vocabulary test scores than children whose parents divorced and had a high relationship quality have lower vocabulary test scores than children whose parents divorced and had a high relationship quality have lower vocabulary test scores than children whose parents divorced and had a high relationship quality have lower vocabulary test scores than children whose parents had a stable relationship but had low relationship quality.

Preliminary conclusions:

After taking into account parents' relationship quality, parental divorce is detrimental for the psychological and cognitive development of young children.

Parents' relationship quality is significantly associated with children's psychological problems but there is no a significant association between parents' relationship quality and children's vocabulary test scores.

There is evidence in favour of the independent hypothesis for internalizing and externalizing problems but for the vocabulary test, only parental divorce is important.

For internalizing and externalizing problems, there is little evidence in favour of the interaction hypothesis. For children's well-being, having both kinds of problems (parental divorce and parents' relationship quality) is worse than having only one. In fact, children who experience parental divorce/separation have more psychological problems than those that had experienced poor parents' relationship quality. Also children that experienced poor relationship quality have more psychological problems than those whose parents divorced.

For the vocabulary test, there is evidence in favour of the interaction hypothesis. Children that experienced poor parental relationship quality have lower scores than those whose parents divorced

Future steps

In future analysis we will study the positive and the negative dimensions of parent's relationship quality and their relation with parental divorce. We will also examine the effects for children who have been exposed to several union dissolutions.

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