# The effect of divorce on the parent-child relationship 

A closer look at the difference between mothers and fathers, and the moderated effect of the parents' educational level

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#### Abstract

We use the NEtherlands Longitudinal Lifecourse Study (NELLS) to investigate the effect of parental divorce on the parent-child relationship. Specifically, we will examine the difference between the mother-child and the father-child relationship. Aside from this difference, the moderated effect of the parents’ educational level will also be examined. Overall, we argue that divorce will have a negative effect on the parent-child relationship. We expect this effect to be stronger for the father-child relationship, since an absence of custody and a nonresidential living situation is more common for fathers than for mothers. Furthermore, we argue that higher educated parents can minimize the impact of divorce on the parent-child relationship through the means of more financial, cognitive, and social resources. Our analyses indicate that there is a negative effect of divorce on the parent-child relationship, where the father-child relationship suffers more from divorce than the mother-child relationship. We do not find an effect of the parents’ educational level on the parent-child relationship post-divorce.


## Introduction

A large body of research shows that children with divorced parents are disadvantaged regarding various life outcomes compared to children with married parents (Amato, 2001; Amato \& Keith, 1991). According to a meta-analysis of Amato (2001), children of divorced parents score significantly lower on psychological well-being, academic achievement, social relations and self-concept. Aside from this negative impact on children's development, divorce also influences the parent-child relationship (Albertini \& Garriga, 2011).

Many studies suggest that father-child relationships suffer more from divorce than mother-child relationships (Aquilino, 1994; Booth \& Amato, 1994; Kalmijn, 2007; Kalmijn, 2012). Seltzer (1991) explains that this, among other things, has to do with the fact that mothers commonly gain custody, which reduces the father's opportunities to invest time and resources in his children.

This thesis will focus on the impact of parental divorce on parent-child relationships among young adults in the Netherlands, and how these relationships differ between mothers and fathers. As well as looking at the gender of the parents, this thesis will also include the parents’ educational level. Specifically, it is the question whether parents with a higher educational level may be able to protect their children from experiencing negative effects from a divorce. Mandemakers \& Kalmijn (2014) indicate for instance, that the negative effect of parental divorce on children's well-being is reduced for children with better educated mothers, but increased for children with better educated fathers. Instead of focusing on children's development or well-being, this thesis will pay attention to the parent-child relationship after parental divorce.

Data on divorce of the Central Bureau for Statistics of the Netherlands show there were approximately 6.500 cases of divorce in the Netherlands in 1950. This number kept on rising rapidly, reaching five to fifteen thousand more divorces every ten years in the next decades. Divorce numbers kept on growing to an extreme of 34.700 divorces in 2000, which was $36.2 \%$ of all marriages at that time. After a small decrease in the next ten years up to 2010 the numbers have only risen again in the last years, up to 33.400 divorces by 2016. This means that $39.1 \%$ of the married population has gotten divorced in 2016 (CBS, 2017).

Oftentimes when divorces occur, the people who are involved have children, leaving those with separated parents. The latest numbers of 2017 show how 18.178 divorces included
children in the household, which is 55.5 \% of all divorces. Of these divorces, the amount of children under eighteen was 32.913 (CBS, 2018). When we also take the children whose parents got separated without being married into account, for example after being in a registered partnership, we get up to 53.000 children whose parents were divorced in 2017 (Van der Wal, 2018).

Studies examining divorce effects have not yet thoroughly been completed in the Netherlands due to a lack of sufficient data. The need and possibility for more studies and results, like this thesis will attempt to reach, rise now that studies such as the NKPS and NELLS offer the necessary data. These studies did a large scale longitudinal research on family ties in Dutch families.

As well as the need for more Dutch data-based research, there is also a need for research focusing more on less tangible results from divorce such as parent-child relationships instead of the more often researched and more tangible socio-economic effects (Fischer, 2007; Krein \& Beller, 1988; Steele, Sigle-Rushton \& Kravdal, 2009).

Furthermore, there appears to be a disagreement about the subject in the literature. Some studies find that parental divorce is not as bad for children's well-being when they have higher educated parents - since more economical resources can be provided - but other studies do not find such a pattern (Fischer, 2007; Mandemakers \& Kalmijn, 2014). The controversy about the impact of divorce on children's well-being could also be applicable to the parent-child relationship.

Besides the reasons why this thesis is interesting on an academic level, it could also add to the discussions surrounding the subject on a more societal level. Divorce is most often not seen as a pleasant experience and is frequently spoken of on the public agenda. Especially the impact of divorce on a child's development is discussed on this societal level, but again less is said about the impact of divorce on parent-child relationships.

Nevertheless, questions like these, concerning the relationships between children and parents post-divorce and what parents can do to influence that, have been popping up in the daily newspapers. The Dutch newspaper NRC Handelsblad recently raised a discussion about the way children associate with their parents after parental divorce, the phenomenon of coparenting and how well this actually seems to work. (Koelewijn \& Vis, 2018). The lastknown Dutch statistics on this subject show how in 2013, 22\% of parents cared for their children through co-parenting after parental divorce (CBS, 2014).

It is important to increase our knowledge about these issues and there is a real need to examine the impact of divorce on parent-child relationships in the Netherlands as well.

So, to conclude we would like to focus our research on answering the following research questions:

1. Do father-child relationships differ in quality from mother-child relationships after parental divorce?
2. Does the parent-child relationship post-divorce differ between higher educated and lower educated parents?

## Theoretical background

There are various perspectives that explain the negative effect of parental divorce on the parent-child relationship. Firstly, a substantial amount of studies focuses on the stress perspective (Amato, 2000). The family stress theory highlights how marital disruption is a stressful life transition to which children must adjust (Amato, 1993). It focuses on the accumulation of negative events - such as the loss of contact with the noncustodial parent, exposure to parental conflict, a decline in standard of living, and moving - which results in several problems for children. This increases the risk of a negative parent-child relationship.

Besides being a stressful period for children, the process of divorce is stressful for parents as well. Stress affects the quality of parents' child-rearing skills (Amato, 1993). Divorced parents appear to be less communicative, affectionate and less consistent in their use of discipline than married parents (Thomson, McLanahan \& Curtin, 1992). This is likely to lead to negative consequences for children and could diminish the quality of the parentchild relationship.

Furthermore, the family systems theory (Minuchin, 1974) emphasises that all parts of a family system are interconnected. Stresses at transitional points in the family, produced by adaptation to a decreased membership in a family, have the potential to influence the parentchild relationship. According to this perspective, the family system consists of several subsystems like the mother-father dyad and the parent-child dyad. Problems and stresses in one particular subsystem may affect the other subsystems (Minuchin, 1974). In this case specifically, a problem in the mother-father dyad, like divorce, can result in problems in the
parent-child dyad. So, parental divorce could harm the mother-father relationship, which in turn harms the parent-child relationship.

The perspective of the family systems theory with their focus on triads links to Heider's (1958) balance theory. Heider distinguishes between balanced and unbalanced triads. A network is balanced if all pairs of agents have a positive relationship or if two agents with a positive relation have a mutual 'enemy'. On the other hand, a network is unbalanced if all pairs of agents have a negative relationship or if the triad consists of two positive and one negative dyad, also known as the 'forbidden triad' (Granovetter, 1973). According to Granovetter, a typical network, where agent 1 has strong ties with agents 2 and 3, implies a strong tie between agents 2 and 3 . However, Granovetter states that a situation where agent 2 and 3 do not have a link between themselves, but do both have a link with agent 1 , is unrealistic and forbidden.

To specify this idea to our case, we illustrated mother-father-child triads. These triads show the different family structures that can occur after a parental divorce. We adjusted Heider's and Granovetter's theory in a way which makes it applicable to these triads. Instead of focusing on the existence of a link between two agents, we focus on whether there is a negative or positive link between two agents. The plus or minus sign between mother, father and child in these figures indicates the relationship after parental divorce. Firstly, the unbalanced triads will be discussed after which we proceed to explain the balanced triads.

Figure 1. 'Forbidden triad’


Figure 2. 'Mutual enemies’


In figure 1 the forbidden triad is shown. In this situation, the mother and father have a negative relationship post-divorce, while both parents still have a positive relationship with their child. According to Granovetter (1973), this network is unbalanced and unrealistic. Heider (1958) also states that there will be an implicit force in this situation to make mother and father friends or to turn one positive relationship into a negative one. Therefore, we assume that this situation is unlikely to happen and expect the differences mainly to be in the separate mother-child and father-child dyads.

In figure 2 the network between parents and child is unbalanced because of the existence of three negative relationships post-divorce. Here, both mother and father have a negative relationship with their child after divorce has occurred. Heider (1958) would describe this situation as forbidden or not possible because a triad of negative ties would cease to exist or there will be a force to team up against the third. However, Davis (1967) describes this triad as a weaker form of structural balance and does allow this type of network. Based on earlier mentioned theories we expect that the triad in figure 2 is realistic, since parental divorce has a negative effect on both the mother-child and the father-child relationship.

Figure 3. 'Mutual friends’


Figure 4. 'Shared enemy'


Figure 5. 'Shared enemy'


In figure 3, the network between parents and child is balanced because all ties are positive. In this situation the relationship between the parents, the mother-child relationship and the father-child relationship are positive post-divorce. As mentioned before, the negative effects of parental divorce will be examined and therefore we expect that this situation is unlikely to happen.

In figure 4 \& 5 the networks are balanced because one parent has a positive relationship with their child, and both do not have a positive relationship with the other parent after divorce. Here, one parent and the child have chosen a mutual 'enemy'. Figure 4 shows how the mother-child relationship is positive while both mother and child have a negative relationship with the father post-divorce. In figure 5 it is the other way around: the fatherchild relationship is positive while both father and child have a negative relationship with the mother. Both situations could occur post-divorce but we expect that a negative father-child relationship (figure 4) will occur more often than a negative mother-child relationship (figure 5) after parental divorce. The expectation that father-child relationships suffer more from a parental divorce than mother-child relationships will be further elaborated on page 9 .

The importance of family structures has been discussed, and it is clear a separation of the parents can lead to disruption in a family. This parental separation usually results in one parent moving away from their children and ex-partner, causing a change in family structure. This change leads to psychological stress and underperformance of the child, but also to negative outcomes for fathers and mothers (Grätz, 2015).

The 'common effects hypothesis' explains why both parents suffer from divorce when it comes to parent-child relationships. The first argument states that when children must divide their time and attention, it results in a situation where both parents receive less of this than during marriage. Secondly, divorce has a negative effect on the psychological well-being of both parents (Kalmijn, 2012). In turn, this can lead to negative outcomes for the parentchild relationship as less attention can be given to children when the parents are in psychological distress themselves.

More studies (Albertini \& Garriga, 2011; Amato \& Booth, 1996; Kalmijn, 2012) show how divorce has an overall harmful effect on the parent-child relationship, because children of divorced parents feel less affectionate towards and have less contact with their parents than children from married parents.

Although the effect of divorce on the parent-child relationship has already been examined, we derived the following hypothesis as the starting point of our thesis:

H1: Parental divorce influences the parent-child relationship negatively.

Besides the overall negative effect of divorce on the parent-child relationship, different researches have been conducted on the separate father-child and mother-child relationships (Augustine, 2014; Kalmijn, 2012; Shapiro \& Lambert, 1999). These researches are often focusing on the father since his relationship with the child is thought to suffer the most from a divorce. This focus on the father is mostly due to the absence of custody for the father after divorce and his (in)ability to invest in the relationship with the child (Kalmijn, 2012). Even when fathers still play a role in the lives of the child after divorce, it will most likely be weaker than during the marriage. The fact that fathers have weaker relationships with their children after divorce is in some cases already present during marriage, leading to even fewer investments after marriage has ended (Kalmijn, 2012).

So, the absence of fathers in their children's life is often given as a reason why fathers suffer more from a divorce. The residence of the children post-divorce does not only affect the child itself, but also plays a big part in parent-child relationships. A divorce leads to the separation of the parents, and so the separation of the children with the non-residential parent. This nonresidential parent is often the father and research shows how these fathers have less contact with their children (Manning \& Smock, 1999). Besides, Shapiro \& Lambert (1999) show in their research that non-resident fathers' involvement with their children steadily falls over time, even for fathers who were highly involved initially. As fathers decrease contact, they also tend to decrease child support. So, father-child relationships post-divorce remain to be characterized by low levels of affection, contact, and intergenerational exchanges.

Furthermore, Kalmijn (2012) states that children struggle with loyalty conflicts after parental divorce which can lead to investing more in one relationship and less in the other. Sobolewski \& Amato (2007) refer to this pattern as incongruent parent-child closeness. In most cases, the relationship with one parent deteriorates post-divorce, which can lead to an attempt to intensify the relationship with the other parent as compensation (Kalmijn, 2012). As already mentioned, this deteriorating relationship often concerns the father-child relationship as divorce-effects are found to be stronger for fathers than for mothers (Amato \&

Booth, 1996, Kalmijn, 2012). Additionally, Sobolewski \& Amato (2007) found that children of both genders were more likely to be close to their mother than to their father.

So, when we consider the family triads explained on page 7 we expect that the family structure in figure 4, where the father-child relationship is negative post-divorce, is more likely to occur than the family structure in figure 5, where the mother-child relationship is negative post-divorce.

Based on these theories and findings we expect that the father-child relationship will be more affected by parental divorce than the mother-child relationship. Therefore, we have derived the following hypothesis:

H2: Father-child relationships suffer more from a parental divorce than mother-child relationships.

Besides looking at the difference between mother-child relationships and father-child relationships post-divorce, this thesis also examines the influence of parents' educational level on the relation between parental divorce and parent-child relationships.

Educational levels and resources of fathers and mothers are highly correlated (Mandemakers \& Kalmijn, 2014). When it comes to resources, parental separation is quite disadvantageous to children. When only one parent is present, it may reduce financial, social and time resources. This resource issue links to the compensatory class hypothesis, which states that children from higher class families suffer less from negative life events because these families can compensate better after divorce when it comes to resources (Grätz, 2015). In his research, Grätz finds that a high educational level of mainly the father indeed compensates for negative outcomes of a parental separation. For the father, a higher educational level leads to having more resources, making him able to be more involved in the child's life, despite of having moved to another household than the child. Also, Fischer (2007) expects in her research that when children have higher educated parents, and are thus in the possession of a better financial situation, there will be more economic resources available to minimize the impact of divorce. She argues that these children can probably maintain their daily life routines, which reduces the risk for major problems. The findings of Fischer however are the opposite to those of Grätz: she states how higher educated fathers with higher levels of resources could lead to great losses for the child after divorce. However, her research did find the positive effect of mother's educational level and resources post-
divorce. A higher educated mother can more adequately compensate for these losses after a divorce.

Based on these findings, we expect children with higher educated parents to struggle with fewer problems from divorce than children with lower educated parents. This may, in turn, reduce the negative effect of divorce on parent-child relationships among children with higher educated parents. So, we expect a difference between the children of higher and lower educated parents and their ability to process certain problems. This difference between educational levels does not only occur among the children but also among their parents. Mandemakers, Monden \& Kalmijn (2010) for instance find that higher educated women suffer less from a divorce than lower educated women. Psychological problems of parents influence the parent-child relationship negatively (Kiernan \& Huerta, 2008). So, when higher educated women experience fewer psychological problems after divorce, this could be positive for the parent-child relationship.

Besides financial resources, parents’ educational level also influences the knowledge parents contain in the area of divorce-effects. Higher educated parents possess more social, psychological and cognitive resources than lower educated parents (Augustine, Cavanagh \& Crosnoe, 2009). These resources help them to manage their children's opportunities and experiences effectively, regardless of their family structure circumstances. Additionally, Mandemakers \& Kalmijn (2014) argue that higher educated mothers may be more aware of negative divorce-effects, because their educational level increases the likelihood that they read books and newspapers. Augustine (2014) therefore states that better educated parents can offer a more secure and solid environment after parental separation. Hence, these children may adapt faster to the new family situation. We assume that this can improve the parent-child relationship post-divorce.

Lastly, the amount of contact between the non-residential father and the child is higher among more educated fathers (Arditti \& Keith, 1993; Furstenberg, Nord, Peterson \& Zill, 1983). Therefore, these fathers are more strongly involved in their children's upbringing. Better contact with the father leads to several benefits: better access to financial, social and cultural resources (Fischer, 2007), improvement of parenting and children suffering less from the negative divorce-effects (McLanahan \& Sandefur, 1994). Higher educated fathers are therefore better able to maintain the relationship with their child after parental separation than lower educated fathers.

Based on above-mentioned arguments, we expect that having higher educated parents will reduce the negative effect divorce has on the parent-child relationship. We will look at this effect separately for mothers and fathers. Therefore, we derived the following hypotheses:

H3: The effect of parental divorce on the mother-child relationship is less negative the higher the education of the mother.

H4: The effect of parental divorce on the father-child relationship is less negative the higher the education of the father.

## Data and Methods

To examine the hypotheses in this paper we use data from the NEtherlands Longitudinal Lifecourse Study (NELLS: Tolsma et al., 2014). The NELLS focuses on three central sociological themes useful for sociological research: social cohesion, norms and values and inequality. The NELLS consists of two waves, collected in 2009 and 2013.

The data-collection of the first wave started in 2008 and used a combination of face-to-face interviews and self-completion questionnaires giving profound information about the participants and their kin. Wave 1 holds a response rate of $52 \%$ and the initial sample was N = 5312. Data for the second wave has been collected in 2013 in a combination of face-to-face interviews and web-survey questionnaires. This was done among respondents who in Wave 1 answered positively on the question if they could be contacted again. The response rate of Wave 2 is 75 \% among all respondents. However, in this thesis we will only use the first wave of the NELLS because of the high amount of missings in the second wave on the variables useful to us.

In data of the NELLS the ages of the respondents range from 15 to 45 . For our thesis, we have chosen to select adolescents and young adults from the age of 15 to 25 since this category reflects the theories discussed in this thesis best. Moreover, we assume that respondents who are older than 25 experience the relationship with their parents differently than respondents who are still young. We expect this since people over 25 are usually in a different stage of life - having children themselves, working, living with a partner - which may influence the relationship they have with their parents.

Respondents who experienced parental divorce after the age of 18 are placed on missing values, because effects on parent-child relationships are known to be different when
divorces happen at older ages (Aquilino, 1994). This results in our final $\mathrm{N}=1035$, with $\mathrm{N}=895$ whose family is intact and $\mathrm{N}=140$ who experienced parental divorce.

## Variables

The three main variables important for this thesis are parental divorce, parent-child relationships and parents' educational level.

To measure if the respondent's parents divorced, the NELLS asked the following question: ‘Are your (biological) parents divorced (or separated)?’. Respondents could answer this question with (1) yes, (2) no, and (3) I don't know. We made a dummy variable of parental divorce with the categories (0) no and (1) yes, and placed (3) I don't know on missing values.

To provide information about the quality of the parent-child relationship we used the question: 'How satisfied/dissatisfied are you with the relationship you currently have with your [mother/father]?'. The level of satisfaction with the relationship with the mother or father was measured on a five-point scale from (1) very satisfied, (2) satisfied, (3) not satisfied and not dissatisfied, (4) somewhat dissatisfied, to (5) very dissatisfied. This variable was transformed into a variable with a 5 -point scale: 1 being very dissatisfied with the relationship and 5 being very satisfied. Since the NELLS dataset does not contain a question focused on the quality of the relationship between the father and the mother post-divorce, the effect of divorce on the earlier mentioned triads of family structure cannot be measured as a whole. Therefore, the effect on separate mother- and father-child relationships will be measured.

Educational level of both parents was measured with the question: 'What is the highest completed education of your [father/mother]?'. This question contains the following answer categories: (1) primary school not finished or not attended, (2) primary school, (3) preparatory secondary vocational education, (4) lower general secondary education, (5) intermediate vocational education, (6) higher general secondary education or preuniversity education, (7) higher vocational education, (8) university, (9) foreign education, cannot be divided into a category, namely..., and (10) I don't know. Since we could not grant years to the last two answer categories we put these on missing values. We transformed this variable into a scale based on years dedicated to each educational level. We granted the following numbers of years to the different educational levels; primary school not finished or not attended $=4$ years, primary school $=8$ years, preparatory secondary vocational education $=12$ years, lower general secondary education $=12$ years, higher general secondary
education and pre-university education $=14$ years, intermediate vocational education $=15$ years, higher vocational education $=17$ years, and university $=18$ years.

In our analyses we included some control variables which are related to parental divorce. Firstly, we included the respondent's sex and age because they are both known to have an influence on parent-child relationships (Kalmijn, 2012; Peterson \& Zill, 1989). We also took the respondent's educational level into account, because higher educated adolescents appear to be more capable of understanding more complex perspectives and relationships (Gurin, Dey, Hurtado, \& Gurin, 2002). Therefore, we expect higher educated respondents to be better able to cope with the divorce of their parents than lower educated respondents. The educational level of the respondent is, just as the parents' educational level, transformed into years.

In the theory it has been discussed how the living situation of a child affects the relationship with the non-residential parent. We expect children to more often live with their mother than their father post-divorce. To see if our data is in line with this theory we performed a crosstab statistic which showed us that $9.3 \%$ of the children live with their father after a parental divorce compared to $49.3 \%$ who live with their mother, as seen in Appendix A. We will perform an extra regression including the living situation of the child to see whether this influences the satisfaction with the parent-child relationship after a divorce.

The child's living situation is asked through the following question: ‘Concerning your current living situation, are you living with your parents?'. This question contains the following answer categories: (1) yes, with both parents, (2) yes, with my mother, (3) yes, with my father, and (4) no. We have recoded these answer categories into four dummy variables with a yes/no answer category.

## Table 1

Descriptive statistics

|  | Full sample(N=1035) |  |  |  | Family intact$(\mathrm{N}=895)$ |  | Parental divorce$(\mathrm{N}=140)$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | s.d. | Min | Max | Mean | s.d. | Mean | s.d. |
| Mother-child relationship | 4.49 | . 67 | 1 | 5 | 4.52 | . 64 | 4.31 | . 80 |
| Father-child relationship | 4.25 | . 83 | 1 | 5 | 4.34 | . 72 | 3.66 | 1.17 |
| Parental divorce | 0.14 | - | 0 | 1 | 0 | - | 1 | - |
| Education mother | 11.99 | 4.18 | 4 | 18 | 11.91 | 4.20 | 12.49 | 3.97 |
| Education father | 12.92 | 4.11 | 4 | 18 | 12.92 | 4.13 | 12.87 | 4.04 |
| Education respondent | 15.20 | 2.07 | 8 | 18 | 15.24 | 2.04 | 14.92 | 2.22 |
| Age | 19.81 | 3.00 | 15 | 25 | 19.91 | 3.03 | 19.12 | 2.72 |
| Sex | . 53 | - | 0 | 1 | . 53 | - | . 53 | - |
| Living with parents | . 62 | - | 0 | 1 | . 69 | - | . 16 | - |
| Living with mother | . 07 | - | 0 | 1 | . 01 | - | . 49 | - |
| Living with father | . 02 | - | 0 | 1 | . 00 | - | . 09 | - |
| Living somewhere else | . 29 | - | 0 | 1 | . 30 | - | . 26 | - |

## Descriptive statistics

As seen in table 1, the mother-child relationship satisfaction is higher (mean $=4.49$ ) than the father-child relationship satisfaction (mean $=4.25$ ). In the separate groups this difference is also found, under respondents with an intact family the mother-child relationship satisfaction is higher (mean $=4.52$ ) than the father-child relationship satisfaction (mean $=4.34$ ) as well as for respondents of divorced families the mother-child relationship satisfaction (mean $=4.31$ ) rises above the father-child relationship satisfaction (mean $=3.66$ ). Interestingly, both mother-child and father-child relationships are rated relatively high. Therefore, we decided to look at the distributions of these variables and show the bivariate differences between children from intact families and children from divorced families.

Figure 6. Mother-child relationship - family intact


Figure 8. Father-child relationship - family intact


Figure 7. Mother-child relationship - parental divorce


Figure 9. Father-child relationship - parental divorce


In the figures on page 16, we see that the distributions are left-skewed. If we look at the difference between intact families and divorced families we see that the satisfaction with the relationship with both parents is higher in intact families. There is evidence that the motherchild relationship is better in intact families than in families where parental divorce occurred ( $\mathrm{t}=2.934, \mathrm{p}=.004$ ). As well as the mother-child relationship, the father-child relationship is also better in intact families ( $\mathrm{t}=6.640, \mathrm{p}<.001$ ).

The mean of the mother's educational level of the total sample is 11.99 , which translated into the preparatory secondary vocational educational level or the lower general secondary educational level. The mean of the mother's educational level in intact families appears to be 11.91 years and in families where parental divorce occurred the mean is 12.49 years. However, there is no evidence that the mother's educational level is significantly lower in intact families than in divorced families $(\mathrm{t}=-1.550, \mathrm{p}=.122$ ).

The mean of the father's educational level of the total sample is 12.92 , which translates into a higher general secondary educational level. Opposite of the mother's educational level, the mean of the father's educational level appears to be higher in intact families (mean $=12.92$ ) than in families where parental divorce occurred (mean $=12.87$ ). However, there is no evidence that the father's educational level is significantly higher in intact families than in divorced families ( $\mathrm{t}=.116 ., \mathrm{p}=.908$ ).

With a mean of 15.20 years, the educational level of the respondents themselves is higher than their parents’ educational level. This translates into an intermediate vocational educational level. The mean of the respondents’ educational level appears to be higher in intact families (mean $=15.24$ ) than in families where parental divorce occurred (mean $=14.92$ ). However, there is no evidence that the respondent's educational level is significantly higher in intact families than in divorced families ( $\mathrm{t}=1.587, \mathrm{p}=.114$ ).

## Analysis

The hypotheses in this thesis will be examined by the use of regression analyses. The unstandardized effects, standard errors, and standardized effects will be presented. To test the different hypotheses, we use three models in the first regression analysis. The first model will test the direct effect of divorce on the mother-child and the father-child relationship and will be used to either confirm or reject hypothesis 1 and 2.

Model 2 and 3 will both be used to test hypothesis 3 and 4 . Model 2 again tests the effect of divorce on the mother-child and the father-child relationship, but will also be
controlling for the educational level of the mother and the father. Where in model 3 this same effect is measured with an interaction effect between parents' educational level and parental divorce, separately for the mother and the father.

In all regressions the respondent's educational level, sex, and age will be included as control variables.

Additionally, a separate analysis will be done to measure the effect of the child's living situation on the parent-child relationship. To do so, a regression analysis with four dummy variables consisting of the child's four possible living situations will be done several times. Each time, one of the dummy variables will be kept out of the regression as a reference category. This way we can clearly see the group differences at hand.

## Results

## Table 2

The effects of parental divorce on the parent-child relationship between age 15 and 25. $N=1035$.

|  |  | Model 1 |  |  | Model 2 |  |  |  | Model 3 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | S.E | Beta | B |  | S.E | Beta | B | S.E | Beta |
| Mother | Intercept | 4.586*** | . 181 |  |  | 4.692*** | . 185 |  | 4.694*** | . 186 |  |
|  | Parental divorce | -.212** | . 061 | -. 108 |  | -.203** | . 061 | -. 103 | -.204** | . 061 | -. 104 |
|  | Educational level mother |  |  |  |  | -.014** | . 005 | -. 088 | -.014** | . 005 | -. 090 |
|  | Educational level mother * |  |  |  |  |  |  |  | . 002 | . 015 | . 004 |
|  | Parental divorce |  |  |  |  |  |  |  |  |  |  |
|  | Educational level respondent | . 003 | . 011 | . 010 |  | . 010 | . 011 | . 031 | . 010 | . 011 | . 031 |
|  | Age | -. 005 | . 007 | -. 020 |  | -. 006 | . 007 | -. 028 | -. 006 | . 007 | -. 028 |
|  | Sex | -. 051 | . 042 | -. 038 |  | -. 063 | . 042 | -. 047 | -. 063 | . 042 | -. 047 |
|  | $\mathrm{R}^{2}$ | . 013 |  |  |  | . 020 |  |  | . 021 |  |  |
| Father | Intercept | 4.409*** | . 217 |  |  | 4.462*** | . 223 |  | 4.501*** | . 225 |  |
|  | Parental divorce | -.684*** | . 073 | -. 279 |  | -.683*** | . 073 | -. 281 | -.683*** | . 073 | -. 281 |
|  | Educational level father |  |  |  |  | -. 006 | . 006 | -. 031 | -. 010 | . 007 | -. 047 |
|  | Educational level father * |  |  |  |  |  |  |  | . 024 | . 018 | . 059 |
|  | Parental divorce |  |  |  |  |  |  |  |  |  |  |
|  | Educational level respondent | . 013 | . 013 | . 032 |  | . 016 | . 013 | . 039 | . 016 | . 013 | . 041 |
|  | Age | -. 012 | . 009 | -. 045 |  | -. 013 | . 009 | -. 047 | -. 013 | . 009 | -. 048 |
|  | Sex | -. 029 | . 050 | -. 017 |  | -. 034 | . 050 | -. 021 | -. 036 | . 050 | -. 022 |
|  | $\mathrm{R}^{2}$ | . 080 |  |  |  | . 081 |  |  | . 082 |  |  |

*** p < .001, ** p < .01, * p < 0.05
Note: Dependent variable: mother-child relationship/father-child relationship.

In table 2 we give an overview of the results of the first regression. Since the difference in effects with and without control variables is negligible, we choose to only show the table including the control variables. In the Appendix B we added table 5 in which you can see the difference between the analyses with and without control variables. However, the control variables appear to be insignificant in all models and will thus not be interpreted.

As we can see in Model 1, there appears to be a significant negative effect of parental divorce on the mother-child relationship ( $b=-.212, \mathrm{t}=-3.474, \mathrm{p}=.001$ ) as well as on the father-child relationship ( $b=-.684, \mathrm{t}=-9.363, \mathrm{p}<.001$ ). So, children with divorced parents are less satisfied with the relationship with their mother and father than children from an intact family. Hypothesis 1 can thus be confirmed because divorce has a negative effect on the parent-child relationship.

If we look at the difference between the effects of divorce on mother-child and father-child relationships in Model 1, we can see that the father-child relationship suffers more postdivorce than the mother-child relationship. While children with divorced parents rate the satisfaction with the relationship with their mother with -.212 points lower than children of intact families, they rate the satisfaction with their father -. 684 points lower. So, hypothesis 2 can be confirmed since the effect of parental divorce is stronger for the father-child relationship.

In Model 2 we added the educational level of the parents as a control variable, to see if the effect of parental divorce on parent-child relationships changed. It appears to be that the satisfaction with the mother-child relationship is still significantly lower for children with divorced parents than for children of intact families ( $\mathrm{b}=-.203, \mathrm{t}=-3.325, \mathrm{p}=.005$ ). However, the satisfaction with the relationship with the mother is significantly lower when the educational level of the mother increases with one year, keeping parental divorce constant ( $b=-.014, t=-2.782, p=.005$ ). So, the higher the educational level of the mother, the less satisfied children are with the mother-child relationship.

As we can see in Model 2, the satisfaction with the father-child relationship also remains significantly lower for children who experienced parental divorce than for children of intact families when we control for father's educational level (b $=-.678, \mathrm{t}=9.324$, $\mathrm{p}<.001$ ). However, the effect of the father's educational level is not significant ( $\mathrm{b}=-.006$, $\mathrm{t}=-1.017, \mathrm{p}=.309)$.

Eventually, in Model 3 we tested the effect of parents' educational level and divorce on the parent-child relationship with an interaction term. There are no indications that the effect of mother's educational level differs between children of divorced parents and children of intact families ( $\mathrm{b}=.002, \mathrm{t}=.113, \mathrm{p}=.910$ ). This effect also appears to be insignificant when it comes to the educational level of fathers $(b=.024, t=1.345, p=.179)$. So, in our thesis hypotheses 3 and 4 can be rejected.

Theoretical aspects of the negative outcome for the parent-child relationship when the parent - commonly the father - lives on another address than their child have been discussed. We decided to do an extra test with our data to see whether the effect of divorce on the parentchild relationship differs between four possible living situations of the child.

## Table 3

The effects of parental divorce on the parent-child relationship between age 15 and 25 controlled for living situation. $N=1035$.

|  |  | Model 1 |  | Model 2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | S.E | B | S.E |
| Mother | Intercept | 4.515*** | . 022 | 4.380*** | . 112 |
|  | Parental divorce | -. 118 | . 061 | -. 118 | . 087 |
|  | Living with parents | (ref.) |  | . 135 | . 113 |
|  | Living with mother | -. 135 | . 113 | (ref.) |  |
|  | Living with father | -. 280 | . 189 | -. 145 | . 189 |
|  | Living somewhere else | . 009 | . 047 | . 144 | . 112 |
|  | $\mathrm{R}^{2}$ | . 014 |  | . 014 |  |
| Father | Intercept | 4.356*** | . 032 | 4.648*** | . 224 |
|  | Parental divorce | $-.517^{* * *}$ | . 103 | -.517*** | . 103 |
|  | Living with parents | (ref.) |  | -. 293 | . 225 |
|  | Living with mother | -.387** | . 135 | -.679** | . 225 |
|  | Living with father | . 293 | . 225 | (ref.) |  |
|  | Living somewhere else | -. 041 | . 056 | -. 334 | . 224 |
|  | $\mathrm{R}^{2}$ | . 089 |  | . 012 |  |

Note: Dependent variable: mother-child relationship/father-child relationship.

In table 3 we give an overview of group differences in satisfaction with mother-child and father-child relationships, considering different living situations. Model 1 is used to look at the differences between living with both parents, and living with the mother and the father separately. Furthermore, Model 2 is used to look at the effect of living with the mother on the father-child relationship and vice versa.

When looking at both models, there appears to be no significant differences between the living situations of the children when it comes to satisfaction with the mother-child relationship (R2-change $=.003$, F-change $=1.049, \mathrm{p}=.370$ ). However, the overall differences in living situations when it comes to satisfaction with the father-child relationship are significant (R2-change $=.012$, F-change $=4.454, \mathrm{p}=.004$ ). The satisfaction with the father-child relationship of children who live with their mother appears to be -.387 lower than for children who live with both of their parents $(\mathrm{b}=-.387, \mathrm{t}=-2.872, \mathrm{p}=.004)$. The differences between living with your father $(b=.293, t=1.301, \mathrm{p}=.193)$ and living somewhere else ( $\mathrm{b}=-.041, \quad \mathrm{t}=-.734, \mathrm{p}=.463$ ) compared to living with both of your parents are not significant.

However, when we compare the satisfaction with the father-child relationship between children who live with their father or mother, we see significant differences. It seems that the satisfaction with the relationship with the father is -.679 lower for children living with their mother compared to children living with their father $(b=-.679, t=-3.014$, $\mathrm{p}=.003$ ). However, the differences between living with both your parents (b =-.293, $\mathrm{t}=-1.301, \mathrm{p}=.193$ ) and living somewhere else $(\mathrm{b}=-.334, \mathrm{t}=-1.489, \mathrm{p}=.137)$ compared to living with your father are not significant.

Theoretically, we expected the residence of the child to have an effect on the parentchild relationship. Our results show how children who live with their mother have a worse relationship with their father and so these results can be seen as a mechanism behind hypothesis 2.

## Conclusion and discussion

Many studies suggest how children with divorced parents are disadvantaged in their further life outcomes compared to children with married parents. As well as this negative effect of divorce on children's well-being, divorce also has a negative effect on the parent-child relationship. Aside from the widespread academic research done on the effects of divorce, it is also a discussed topic on the public agenda with terms such as 'co-parenting' popping up in the daily news. In this thesis the NEtherlands Longitudinal Lifecourse Study (NELLS) has been used to investigate whether there is a negative effect of parental divorce on the parentchild relationship. In this data the respondents consist of the children of divorced parents and so the results will be from their perspective. With this data we will try to answer the following questions; 'Do father-child relationships differ in quality from mother-child relationships after parental divorce?’ and 'Does the parent-child relationship post-divorce differ between higher educated and lower educated parents?’.

We have examined four hypotheses to answer these research questions. For our first hypothesis we argued how divorce would have a negative effect on the parent-child relationship, without distinguishing between mothers and fathers. Then, for our second hypothesis we argued how the negative effect of divorce would be stronger for fathers than for mothers, and how the father-child relationship would suffer more from a divorce. This specific focus on the father originated from previous research showing how the father-child relationship is worse after a divorce. This more negative effect for fathers is caused by mechanisms such as the residence of the child and the resources of the father. Lastly, we argued how the educational level of the parents would influence this effect, leading to our third and fourth hypothesis. For our third hypothesis we expected the effect of divorce on the mother-child relationship to be less negative the higher the education of the mother. And so, for our fourth and final hypothesis we expected the effect of divorce on the father-child relationship to be less negative the higher the education of the father.

So, for our first hypothesis we expected divorce to have a negative effect on the parent-child relationship. We have found evidence that there is a negative significant effect of divorce on the parent-child relationship. The parent-child relationship is better before than after a divorce, and so our first hypothesis can be confirmed. We can assume that divorce is a very stressful event in a child's life which accumulates many negative consequences, and in turn will disrupt the parent-child relationship. This disruption of the family system - the separation
of the mother and father - can lead to a diminished quality of the parent-child relationship. Furthermore, we argued that a parental divorce leads to psychological stress of the parent and of the child, leading to a decrease of quality of the relationship between them which is in line with our findings.

For the second hypothesis we expected how the father-child relationship would suffer more from a divorce than the mother-child relationship. As mentioned above we have found a significant effect of divorce on the parent-child relationship. We found this effect to be bigger for the father, leaving the father-child relationship to be impacted more negatively than the mother-child relationship. We argued how the residence of the father, and its additional consequences such as absence of the father in the child's life, are mechanisms that lead to a more negative effect of divorce on the father-child relationship. The father is often the parent moving away from the child's registered address. This leads to the father being less able to invest time and resources in his children, and his involvement with the children will fall steadily over time. Furthermore, loyalty issues within the children after a parental divorce often leads them to invest more in one parent than the other which are more often the fathers since negative divorce effects are most often found for the father. To further support hypothesis two, focussing on the more negative effects for the father-child relationship, we also conducted a regression with the living situations of the child. We expected the residence of the child to influence the parent-child relationship. We did not find significant evidence between different living situations when it comes to the satisfaction with the mother-child relationship. We did however find significant evidence between different living situations when it comes to the satisfaction with the father-child relationship. It appears that the satisfaction with the father-child relationship is lower for children living with their mother compared to children living with their father.

For our third hypothesis we expected the effect of divorce on the mother-child relationship to be less negative the higher the education of the mother and for our fourth hypothesis we expected the effect of divorce on the father-child relationship to also be less negative the higher the education of the father. We did not find significant evidence for this effect of educational level of the parents.

This research also has its complications when it comes to the results which were found. As mentioned, the effect of the third and fourth hypothesis are not significant. It could be that the theoretical mechanisms assumed to lead to the effect of educational level for the parents are not as predicting as expected, or might even be the opposite of what we expected. We
expected a high educational level of the parents to weaken the effect of divorce on the parentchild relationship. Bernardi \& Radl (2014) give an alternative explanation for the effect of educational level on the parent-child relationship after a divorce. They discuss how the higher educated the parents are, the bigger the negative effect of divorce is for the children. Children from lower socioeconomic backgrounds and poorly educated parents suffer less implications from a divorce since they have less to lose than children coming from higher socioeconomic backgrounds with highly educates parents. Their results are in line with these theoretical mechanisms, they find how the divorce penalty is larger for children whose parents are highly educated.

However, we feel as though another explanation for our insignificant outcome of the interaction effect could also be a statistical one. The effect could be off since the population size for our group of people with divorced parents was so small it could cause the effect to be insignificant. More research with a proper population size in that category is necessary to completely rule out the theoretical mechanisms used in this thesis as explanations for the effect.

This research uses data from the NELLS dataset, the respondents in this thesis, are labelled as the 'children from divorced parents'. We don't have access to data on the parents of the family, making it impossible to measure the relationships between the entire family as explained in the balance theory. Factors such as verbal and physical abuse between the parents also greatly affects the child and the parent-child relationship (Amato, 1993). Data on the relationship between the parents as well as between the parents and the children could offer a clearer mechanism as to why some parent-child relationships are more negatively impacted by a divorce.

Earlier, an alternative explanation as to why there was no significant effect of a higher education on divorce has been given. Besides looking at the greater loss of a higher education, an alternative explanation could also be found in the benefits of a lower education. If lower educated environments have more social cohesion, have closer social bonds and more contact with their network than higher educated environments (CBS, 2015), they might be better able to handle the impact of the divorce. When researching the effect of parents' educational level on parent-child relationships after divorce a suggestion for further research could be to take the levels of social cohesion into account as a mechanism behind the effect of educational level.

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## Appendix A .

## Table 4

Living situations of children

|  | Not divorced | Divorced | Total |
| :--- | :--- | :--- | :--- |
| Living with both parents | 620 | 22 | 642 |
| Living with mother | 5 | 69 | 74 |
| Living with father | 2 | 13 | 15 |
| Living somewhere else | 268 | 36 | 304 |
| Total | 895 | 140 | 1035 |

## Appendix B.

## Table 5

The effect of parental divorce on the parent-child relationship between age 15 and 25, with and without control variables. $N=1046$

|  |  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  | Model 5 |  | Model 6 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | S.E | B | S.E | B | S.E | B | S.E | B | S.E | B | S.E |
| Mother | Intercept | 4.516*** | . 022 | 4.586*** | . 181 | 4.666*** | . 063 | 4.692*** | . 185 | 4.668*** | . 067 | 4.694*** | . 186 |
|  | Parental divorce | -.209** | . 061 | -.212** | . 061 | -.202** | . 061 | -.203** | . 061 | -.202** | . 061 | -.204** | . 061 |
|  | Educational level mother |  |  |  |  | -.013* | . 005 | -.014** | . 005 | -.013* | . 005 | -.014** | . 005 |
|  | Educational level mother * |  |  |  |  |  |  |  |  | . 001 | . 015 | . 002 | . 015 |
|  | Divorce |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Educational level respondent |  |  | . 003 | . 011 |  |  | . 010 | . 011 |  |  | . 010 | . 011 |
|  | Age |  |  | -. 005 | . 007 |  |  | -. 006 | . 007 |  |  | -. 006 | . 007 |
|  | Sex |  |  | -. 051 | . 042 |  |  | -. 063 | . 042 |  |  | -. 063 | . 042 |
|  | $\mathrm{R}^{2}$ | . 011 |  | . 013 |  | . 016 |  | . 016 |  | . 017 |  | . 021 |  |
| Father | Intercept | 4.342*** | . 027 | 4.409*** | . 217 | 4.399*** | . 083 | 4.462*** | . 223 | 4.437*** | . 088 | 4.501*** | . 225 |
|  | Parental divorce | -.678*** | . 073 | -.684*** | . 073 | -.678*** | . 073 | -.683*** | . 073 | -.677*** | . 073 | -.683*** | . 073 |
|  | Educational level father |  |  |  |  | -. 004 | . 006 | -. 006 | . 006 | -. 007 | . 006 | -. 010 | . 007 |
|  | Educational level father * |  |  |  |  |  |  |  |  | . 023 | . 018 | . 024 | . 018 |
|  | Divorce |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Educational level respondent |  |  | . 013 | . 013 |  |  | . 016 | . 013 |  |  | . 016 | . 013 |
|  | Age |  |  | -. 012 | . 009 |  |  | -. 013 | . 009 |  |  | -. 013 | . 009 |
|  | Sex |  |  | -. 029 | . 050 |  |  | -. 034 | . 050 |  |  | -. 036 | . 050 |
|  | $\mathrm{R}^{2}$ | . 078 |  | . 080 |  | . 078 |  | . 081 |  | . 080 |  | . 082 |  |

Note: Dependent variable: mother-child relationship/ father-child relationship.

