Can time heal all wounds? Timing of family transitions and final school grades in Norway

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Evidence from several nations has demonstrated that children and adolescents with divorced or separated parents do on average less well in school compared to those who grow up with non-divorced parents (Amato, 2014; Raley & Sweeney, 2020). This has been shown for school grades (Mandemakers & Kalmijn, 2014; Nilsen et al., 2020), as well as for attending a higher school track (Grätz, 2015). Poor educational outcomes may initiate processes that lead to other kinds of disadvantages with regard to physical and mental well-being, relationship stability, and economic well-being later in adulthood (Dalgard, Mykletun, Rognerud, Johansen, & Zahl, 2007; Lyngstad, 2004). Therefore, it is important to improve our understanding of children's reactions and adaptation processes after parents have broken up.

One explanation for the negative association of parental separation and school success is the increase in children's stress when parents dissolve their union. Separation discontinues daily routines and uncertainties about family roles and parental responsibilities occur. Moreover, it is argued that children of separation have access to fewer resources than children who live with two biological parents. For children living in single-parent families, Sigle-Rushton, Lyngstad, Andersen, and Kravdal (2014) showed that only those children whose parents separated shortly before they received their grades were disadvantaged. This might indicate that children learn how to cope with the new family situation and that after a phase of adaptation the negative consequences of parents' separation on school outcomes diminish. We know little about children's adaptation to other family forms, such as stepfamilies.

Our paper has two goals. First, we analyze children's adaptation to parental separation over time. Second, we analyse the adaptation to stepfamily formation. Given that the number of children in stepfamilies increased over the last years, it is important to identify potential patterns of educational disadvantages in this group. Just as after parental separation, family roles and daily routines must be re-established when starting a stepfamily. In addition, instability and ambiguity might be induced

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by the stepparent as a new authority figure. We argue that children adapt to their new family situation and that negative effects are strongest in the years shortly after a family transition (i.e. parental separation or stepfamily formation).

In our study, we make use of large register data and linked datasets from Norway (n=1,368,808). The data contain information about school performance in 10th grade, when children are normally 16 years old, and various demographic variables. School performance is measured in the Grade Point Average (GPA). We analyze differences in GPA between children who have experienced separation or stepfamily formation at different ages.

In our preliminary analyses, density plots show the shape of the distribution of the standardized GPA variable (0 = worst score; 100 = best score in a specific year) across different family structures (see Figure 1). The plots descriptively confirm prior research by illustrating, that especially children living in two-biological parent families are almost evenly distributed over GPA scores. By contrast, children living in single-parent families and stepfamilies are overrepresented in the lower part of the distribution.

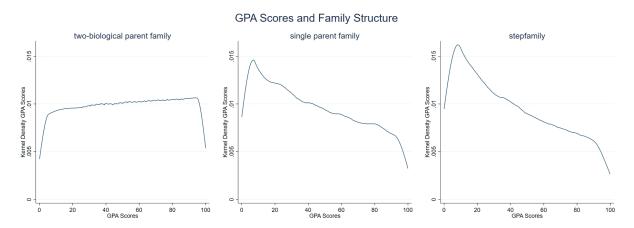


Figure 1: Kernel density plots showing the distribution of GPA scores by family structure. Source: Norwegian register data. Authors' own calculations.

In the next step, we use inverse probability weighting to analyze whether children's school grades in the years following the family transition adjust to the level of school grades of children living in a family with two biological parents. The preliminary results for adaptation to parental separation is shown in Figure 2. The grey diamonds show the GPA level, measured at age 16, for children who experienced parental separation at different ages. The black squares refer to the GPA level of children who live with their two biological parents until age 20 (we randomly assigned them to the age categories). The results indicate that children permanently living in a single parent family (grey

diamonds) reach lower GPA scores than children permanently living with their biological parents throughout age 20 (black squares). Contradicting our adaptation hypothesis, the difference between the two groups is stable and seems to be independent of children's age at separation. Even those whose parents broke up after the GPA exams, i.e. those who were 17, 18, 19 or 20 years at parental separation, reached lower GPA-levels. This "placebo test" (Bernardi & Boertien, 2016) indicates that it is not merely the event of separation that leads to lower school success. It seems that the lower GPA of children in separated families is driven by unobserved factors.

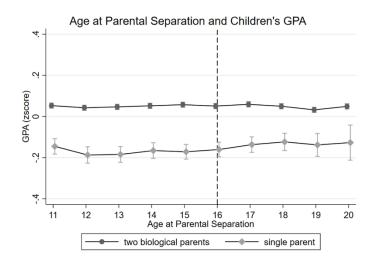


Figure 2: Results OLS regression. Analysis of children's adjustment over time (Ref.: Children living in two-biological parent family). Source: Norwegian register data. Authors' own calculations

These analyses will be replicated also for children living in stepfamilies.

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