Project A1

Social Closure and Hierarchization:

Contextual Conditions of Unequal Developmental Opportunities in Early Phases of Life

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Number of siblings, birth order and maternal investments in preschool children: Resource dilution or resource augmentation?

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For a broad understanding of the mechanisms underlying social inequality, much can be gained by concentrating on early life stages and unveiling so far neglected within-family heterogeneities. Early investments in children have not only been shown to vary within families among siblings but also to be predictive of later developmental, educational and labor market outcomes. This study sheds light on both issues. It aims to explore the relationship between sibling number, birth order and maternal time investments in preschool children. Three theoretical explanations inform our empirical analysis. (1) The resource dilution model assumes that increasing sibship size leads to fewer parental resources for each sibling. (2) Economists suggest that parents invest rationally to maximize a family utility function, favoring one child or the other depending on the parameters of their optimization process. (3) The cultural perspective predicts that parents prefer children in accordance with cultural norms and stereotypes regarding sex and birth order.

Using German mother-child-data from two independent representative samples with comparable measurement instruments (GSOEP and "Familien in Deutschland"), we investigate maternal time investments in children aged 2-3 and 5-6. The dependent variables consist of two dimensions extracted from the mother's self-reported frequencies in various activities with children, 'activities at home' and 'outside activities'. By fitting a random-effects model with an unbalanced pooled panel-dataset and a fixed-effects model with balanced data for two measurement points, we give answer to two questions: (a) To what extent do maternal time investments vary between children in families with different sibling compositions? (b) How do these investments change for the same child across time with the birth of a new sibling? The results show that there are quantitative and qualitative differences in time spent by mothers inside and outside the home. (a) Concerning differences between children, there is an advantage for the firstborn with increasing sibship size, even when compared to an only child. Investments in middle and lastborn children get rather diluted with each additional sibling. The child's sex matters only for activities outside the home. (b) With regard to changes across time, children are more affected by the birth of a new sibling when they already have a younger sibling. While the effect of time investments is positive for activities at home, it is quite

ambiguous for activities outside the home and varies with the child's sex and birth position. Regarding covariates, child care support leads to an increase in maternal time investments, whereas mother's working hours and household income have no impact.

In conclusion, we find mixed evidence for the resource dilution theory. On the other hand, it is unclear whether parental rational investment strategies or social norms and stereotypes drive our results. Testing the latter would require data on parental preferences and child endowments. In addition, and perhaps more importantly, our analysis shows that heterogeneities within families do exist. Maternal time investments differ in accordance to number of siblings and birth order. To which extent these differences influence outcomes in later life stages and therefore produce inequalities will be subject of our research efforts during the next years.