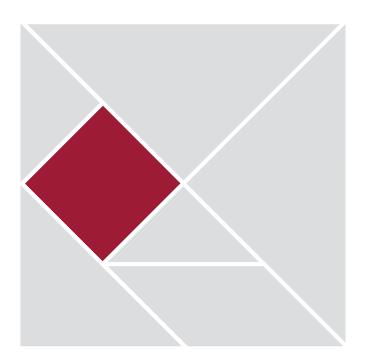# LONE MOTHERS' REPARTNERING TRAJECTORIES AND HEALTH:
DOES THE WELFARE CONTEXT MATTER?

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Abstract

This paper examines the relationship between lone mothers' repartnering trajectories and health in three distinct welfare contexts: the dual-earner, market-oriented, and general family policy model. Inspired by the resources and the crisis model, we apply mixture modelling for event-history analysis to the Harmonized Histories data. We uncover six distinct repartnering trajectories that vary with respect to the timing, type, and stability of higher-order unions for different cohorts of lone mothers. The few associations between repartnering trajectories and health differ systematically and significantly by welfare context. Lone mothers with some, yet unstable repartnering, reported better health in market-oriented contexts, compared to those living in general and dual-earner contexts. Market-oriented contexts were also those where unstable repartnering was more frequent. Overall, findings suggest that a less-generous welfare may encourage unstable, temporary repartnering out of economic need, while welfare contexts with more comprehensive family support allow for more stable repartnering choices.

1. Introduction

The landscape of family life has changed rapidly with the diffusion of living arrangements alternative to the predominant nuclear family model, including diverse family forms such as lone parents, step families, and same-sex couples with or without children (Sobotka & Toulemon, 2008). Particularly, the share of lone parents is rising in many Western countries and, at the same time, it is becoming increasingly heterogeneous with growing diversity in lone parents' socio-demographic characteristics and decreasing durations of lone parenthood episodes (Bernardi, Mortelmans, & Larenza, 2017). Whereas lone parents were less likely to repartner in previous decades, family transitions toward recomposed and blended families tend to occur more frequently and at a higher pace among recent cohorts (e.g., Ermisch & Francesconi, 2000; Bzostek, McLanahan, & Carlson, 2012). It remains unclear, however, whether lone parents benefit from repartnering. The few studies examining the links between mothers' repartnering and health yielded mixed results (e.g., Osborne, Berger, & Magnusson, 2012; Williams, Sassler, & Nicholson, 2008).

Both lone parents' repartnering patterns and lone parents' health have shown to be, at least in part, influenced by welfare states' generosity (or the lack thereof) in supporting non-traditional families (Burstrom et al., 2010; Dewilde & Uunk, 2008). Yet these two strands of research have not been combined to see whether repartnering and health are differently related depending on the welfare context in which lone parents live. Our research explicitly examine whether: (1) repartnering trajectories are associated with lone mothers' health, (2) lone mothers' repartnering trajectories differ across welfare contexts, and (3) associations between repartnering trajectories and health vary systematically across different welfare contexts.

1.1 Lone Mothers and Repartnering

Over the last decades, the share of one-parent households has been increasing in many Western countries due to the rise of divorce, separation, and childbirth outside of marital unions (e.g., Amato, 2010; Bernardi et al., 2017; Kennedy & Bumpass, 2008; Sobotka & Toulemon, 2008). One-parent families accounted for 16% of all families in the EU in 2011 (Eurostat, 2015), yet the vast majority of those households are headed by women (13.4% of all families are lone mother households). Because lone parenthood is a primarily feminine experience and sufficient representative data on lone fathers is lacking, our study focuses on lone mothers.

Lone mothers are generally characterized as parents who reside with and primarily care for at least one child under the age of 18 or even up to 25 years. Lone mothers tended to be young, unmarried mothers, often from a lower socio-economic background, up until the 1970's, whereas this group is now more and

more comprised of divorced or separated parents in more recent decades (Bernardi et al., 2017; Berrington, 2014). Consequently, the group of lone mothers became more diverse with regard to age, education, and socio-economic standing, which transformed the experience of lone motherhood and the composition of marriage markets substantially.

The likelihood of experiencing an episode of lone motherhood may have increased over the last decades, but the duration of remaining lone mother shortened for younger generations. Bernardi and colleagues (2017) estimated that, across multiple countries, recent generations of lone mothers found a new partner on average within two to four years compared to eight to ten years for older cohorts. Because both the chances to repartner and the risk to separate or divorce have increased simultaneously, we expect to find at least three types of repartnering trajectories for lone mothers: a group, comprised primarily of older cohorts, who do not enter a higher-order union ("traditional lone mothers"); a group of lone mothers who repartners and remains in a higher-order union ("stable repartnering"); and a group of lone mothers who repartner and, at some point, break up again ("unstable repartnering"). Repartnering, in this case, may not necessarily mean that a lone mother marries a new spouse, but they often choose alternative, more flexible family forms such as co-residential unions or even living apart together (Perelli-Harris & Lyons-Amos, 2015; Régnier-Loilier, Beaujouan, & Villeneuve-Gokalp, 2009; Sobotka & Toulemon, 2008).

Prior research has focused largely on examining the likelihood of lone mothers' repartnering, and to a lesser degree, on the union trajectories after lone parenthood. What such research has found is that mothers, regardless of their age, are generally less likely to repartner than fathers and childless women (e.g., Beaujouan, 2012; Graaf & Kalmijn, 2003; Vanassche et al., 2015). Higher educated lone mothers, as higher educated women in general, were more attractive on the repartnering market than lower educated ones (Bastin, 2012). Across five European countries, mothers' chances to repartner increase as the children grow older, which can most likely be explained with mothers' freed-up resources to engage in a new relationship as the child become more independent (Ivanova, Kalmijn, & Uunk, 2013). The number of children and having sole physical custody, however, was negatively associated with lone mothers' chances find a new partner (Poortman, 2007; Schnor, Pasteels, & Van Bavel, 2017).

1.2 Lone Mother's Repartnering and Health

Despite the recent demographic shifts in the experience of lone motherhood, being a lone mother is still a strong predictor of poverty, fragmented work histories, lower life satisfaction, and poorer health compared to mothers in traditional families (e.g., Avison & Davies, 2005; Brady & Burroway, 2010; Cooper, McLanahan, Meadows, & Brooks-Gunn, 2008; Millar, 2010; Pollmann-Schult, 2017;

Vandecasteele et al., 2011). Particularly the exposure to chronic stressors in multiple life domains contributes to lone mothers' adverse health trajectories compared to partnered mothers (Kühn, 2017; Struffolino, Bernardi, & Voorpostel, 2016). Repartnering has been suggested to be one strategy to improve lone mothers' disadvantages, yet the empirical evidence on the effects of repartnering remain mixed and the directionality of these effects are unclear (Benzeval, 1998; Dewilde & Uunk, 2008).

Two competing theoretical arguments suggest that the evolution of new relationships can be either a source of strength or strain for lone mothers (e.g., Williams & Umberson, 2004). The *(marital) resource model* suggests that union formation is positively associated with health because the couple shares and pools each other's resources such as income, social ties, and particularly for lone mothers, potentially an additional supportive parental figure (Cooper et al., 2009; Osborne et al., 2012; Williams et al., 2008). Consequently, this argument would predict that the gap in health between repartnered lone mothers and those without a new partner increases over time, which has not been supported for lone mothers (Cooper at al., 2009; Kühn, 2017). However, the health benefits of repartnering may only apply to stable repartnering patterns. For more unstable patterns, the resource drain associated with breaking a higher-order union, for which lone mothers are at a heightened risk (Bastin, 2012; Ermisch & Francesconi, 2000), may cancel out any prior benefits gained by pooling resources. We therefore expect stable repartnering trajectories to be positively associated with health more than other trajectories (**Hypothesis 1a**).

Contrary to the resource model, the *crisis model* assumes that changes in relationship statuses, such as transition into and out of a relationship, represent stressful events that entail at least short-term negative effects on the mother, which fade over time (Cooper et al., 2009; Meadows, McLanahan, & Brooks-Gunn, 2008; Williams & Umberson, 2004). Additionally, the formation of a new romantic union may have negative ripple effects on prior arrangements such as decreased of child support payments from the biological father and father-child contact (Berger, Cancian, & Meyer, 2012). Union formation may therefore be a costly endeavor that requires time and resources—an effect that could cumulate and magnify over time for unstable repartnering patterns implying union formation and subsequent dissolution (where new partners may drain more resources than they contribute in). Thus, in line with the crisis model, we expect unstable trajectories to be more detrimental for lone mothers' health due to the cumulative exposure to multiple union transitions (**Hypothesis 1b**).

1.3 The Role of Welfare Contexts

Lone mothers' repartnering trajectories and their potential ripple effects on health are not only a product of individual choices, but rather of individuals' embeddedness into specific institutional contexts (Mayer, 2004). Welfare states set legal regulations and provide general support systems that either reward or disincentivize certain behaviors, such as mother's labor market participation, implicitly and explicitly (Thévenon, 2011). Cross-national differences in the strength and coverage of supporting institutions and policies most relevant for lone mothers, such as formal childcare, tax credits, or income supplements (Bernardi et al., 2017), may buffer or expose them to health disparities in a given context.

To examine contextual influences on lone mothers' and health systematically, Burstrom and colleagues (2010) distinguish three family policy models based on two criteria: a) countries' endorsement of gender equality in families and b) welfare support for dual earner families. First, the *dual earner model* highly encourages both parents to work by providing universal childcare and therefore does not incentivize traditional family models. Second, the *market-oriented model* provides low support on both dimensions, which leaves childcare and family organization as private matters. Third, the *general model* actively discourages dual earner families, but promotes a highly gendered division of labor. Their findings suggested that well-being and health penalties for lone parents were substantially smaller in countries with more generous policy support for families and higher levels of gender equality (Burstrom et al., 2010; Pollmann-Schult, 2017).

Family policies may also influence lone mothers' repartnering patterns (e.g., Ivanova et al., 2013). For example, Dewilde and Uunk (2008) showed that reliance on social welfare delayed entry into remarriage for divorced women more in high-welfare countries than in low-welfare countries. This is potentially because more generous welfare state support may make women less economically dependent on a new partnership. We therefore predict that less generous welfare contexts, such as the market-oriented model, may increase lone mothers' economic need to repartner, which could, in turn, make those mothers more likely to enter the more fragile unstable repartnering patterns where unions repeatedly breaks over time (**Hypothesis 2**). Lastly, we expect the negative link between unstable repartnering and health could be more pronounced in the market-oriented model because limited state support may aggravate the resource drain associated with union formation and subsequent dissolution, which in turn fosters existing vulnerabilities among lone mothers (**Hypothesis 3**).

2. Method

2.1 Data

Data stem from the Harmonizing Histories dataset of the Generation and Gender Surveys (GGS) on individual well-being and family dynamics, which contains standardized information on retrospective union and fertility histories from 14 countries (Perelli-Harris, Kreyenfeld, & Kubisch, 2011; $N = 225,588$). To examine whether lone mothers' trajectories of repartnering differ systematically across welfare contexts, we drew on data from six selected countries that represent three distinct cases in terms of the combination of welfare regimes and family policies including the dual earner (Sweden and Norway), market-oriented (the UK and Switzerland), and the general model (Germany and France). The British sample was not part of a GGS national survey, but was drawn from the 2005/2006 wave of the British Household Panel Survey (BHPS). We further supplemented the Harmonized Histories data with retrospective fertility and union history information from the Swiss Families and Generations Survey (FGS; $N = 17,289$) that was collected in 2013. The final analytic sample pooled across countries included lone mothers, who were living alone in households with at least one biological child under the age of 18 for at least one full year between the ages 15-55 ($N = 8,941$). An overview of descriptive statistics and sample compositions by country is summarized in Table 1.

2.2 Measures

Partnership histories. Lone mothers' partnership histories were constructed based on data including the month and year of entry into cohabitation, marital unions, and separation or divorce of up to nine separate unions. Questions concerning cohabitation referred to a co-resident relationship with a romantic partner that lasted at least three months. Unions that were missing information on start, as well as start and end dates, were excluded from the analyses. We expanded this information into person-years between the ages 15 to 55 that contained information on participants' partnership status based on the following categories: (0) never in a union, (1) cohabiting, (2) cohabitation preceding marriage, (3) direct marriage, and (4) single after a separation (Perelli-Harris & Lyons-Amos, 2015).

Self-rated health. We measured respondents' own overall evaluation of their health, which is a commonly used and validated single-item health indicator (Idler & Benyamini, 1997), by asking: "In general, would you say your health is …?" on a scale from 1 (very bad) to 5 (very good). Respondents' self-rated health was drawn from the first wave of the respective national GGS datasets (e.g., for Germany and France), the 2005-2006 BHPS, and 2013 FGS.

Demographic information. Information about participants' age at first lone parent episode (in full years), cohort membership (1 = born 1925 to 1945, 2 = born 1946 to 1970, 3 = born 1971 to 1994), educational attainment (from 1= low to 3 = high), number of children (as a count), number of higher order romantic unions (0 = 0 to 1 unions after becoming a lone mother; 1 = 2 or more unions after becoming a lone mother), and the cumulative duration of lone mother episodes (as a count of full years) were available. These variables were used to control for minor differences in sociodemographic composition, and in some cases as predictors (see below).

2.3 Analytic Strategy

We employed Latent Class Growth Curve Models for event-history data using Mplus 7.4 (LCGCM; Mikolai & Lyons-Amos, 2017) to extract latent trajectories of repartnering based on lone mothers' annual partnership and cohabitation status. Because the focus of this study was on lone mothers' repartnering trajectories, we restricted our analyses to partnership information that was reported after the first occurrence of a lone parent episode and disregarded partnership statuses reported before this episode. Mothers' age at the beginning of the union histories varied across the sample as a result.

The appropriate number of latent classes for the final model was determined by using several absolute and relative goodness of fit indices, including AIC, BIC, sample-size adjusted BIC and the Lo-Mendell-Rubin and the Vuong-Lo- Mendell-Rubin Likelihood Ratio Test. Absolute fit indices, such as AIC and BIC, should be as low as possible, whereas relative fit indices, such as likelihood ratio tests compare the goodness of fit of a given model with the fit of a model with one class less. Note that the variances around of intercept and slope were restricted to zero within each class to ensure model convergence.

Based on the posterior probabilities of the final, best-fitting model latent model, we further included health, welfare context, and the interaction between health and welfare context in a multinomial logistic regression model to predict class membership. Predictors were entered hierarchically into the model and robust standard errors were used to adjust for clustering on the country- and welfare context-level. All models controlled for age at the first lone parenthood episode, cohort, educational attainment, the number of children, and whether mothers' reported two or more higher-order unions.

3. Results

3.1 Model Selection

Table 2 shows the model fit indices for the fitted LCGCM in increasing order from a model with one latent class, that is equivalent to a univariate latent growth curve model, up to a eight-class model. It can be seen that the AIC, BIC, and sample-size adjusted BIC continued to decrease across all models, yet the decline in information criteria seemed to level off sharply after the three-class solution. Insignificant p-values on the .01-level for both likelihood ratio test for only the eight-class solution, however, suggested that the seven-class solution was a better fit than the solution with one more class. However, based on the other fit indices, final class counts, and the interpretability of the solutions, we chose the 6-class solution as the final model. This model offered a more fine-grained picture of repartnering patterns compared to the three-class solution and reasonable class counts (i.e., at least over 5% of the sample in a given class) compared to the seven-class solution, while still performing well on the fit indices.

3.2 Latent Class Growth Curve Results

Figure 1 shows the six latent class trajectories that were extracted from the final model. The curves represent the probabilities of being in a given union status at any given year after entering the first lone parent episode until age 55. Our six classes fell into three broad categories of repartnering trajectories, namely *traditional lone mothers*, *unstable repartnering*, and *stable repartnering*. These categories shared important characteristics, as well as distinct features, which we used to differentiate them further.

The traditional lone mother profiles, Latent Profile 1 ($N = 1,691$) and 6 ($N = 2,658$), were both comprised of lone mothers for whom lone parenthood seems to be an absorbing state; they were most likely to not repartner after having lone parenthood. However, the profiles did differ with regard to their pathway into lone parenthood. Profile 1 represented mothers who were never partnered, yet had a child relatively early, and remained without a partner subsequently. This class is mostly likely to be driven by older cohorts, for whom lone parenthood was a life-long destiny. Profile 6 comprised mothers who entered lone parenthood through a separation/divorce and remained single subsequently.

In both unstable repartnering profiles, Latent Profile 3 ($N = 836$) and 4 ($N = 739$), mothers were relatively likely to repartner at some point, but the likelihood to be single after a separation was increasing rapidly toward the end of the observation period. The timing of when repartnering peaks, however, varied between the two classes. For Profile 4, the likelihood of repartnering peaked later after having become a lone mother compared to Profile 3.

Lastly, for the stable repartnering profiles, Latent Profile 2 (*N* = 1,376) and 5 (*N* = 1,641), the chances to be single after a separation/divorce were either decreasing (Profile 2) or remained very low over the observation period (Profile 5). Even though the likelihood of any given repartnering status (e.g., direct marriage or cohabitation) were rather stable over the observation period for both profiles, Class 2 had a slightly higher chance of entering marriage without prior cohabitation. Class 5, in contrast, had a higher likelihood of cohabitation followed by marriage.

3.3 Multinomial Regression Results

Table 3 shows the regression coefficient for the step-wise multinomial regression models. Traditional lone mothers who were never partnered (Class 1) served as reference group for the regression models. To ease interpretation, we plotted the predicted probabilities of falling into each latent class by different levels of health status in Figure 2. Contrary to our first Hypotheses 1a and 1b on the benefit of stable reparterning and the harmful effects of unstable patterns, belonging to one of those repartnerning trajectories had no association with health statuses. Figure 2 shows that health status varied only very little within each latent profile, except for poorer health ratings for mothers who entered lone parenthood after a separation and never repartnered subsequently (Class 6 of the traditional lone mothers).

Figure 3 shows the predicted probabilities of falling into a given latent class by welfare context. It illustrates the results of the models testing of Hypothesis 2, which is confirmed: lone mothers living in market-oriented contexts are more likely to belong to unstable repartnering trajectories; yet, they are also more represented in the traditional lone mothers group who were never partnered (Class 1). Mothers in the dual earner welfare context were either more likely to be in the stable repartnering groups, particularly the class with a higher likelihood of cohabitation before marriage (Class 5), or to the traditional lone mothers who that entered lone parenthood through separation/divorce (Class 6). Participants in the general welfare context were more likely to be traditional lone mothers, particularly the class of mothers that entered lone parenthood through separation and remained single (Class 6).

Lastly, to test whether the anticipated link between unstable repartnering and poor health was more pronounced within the market-oriented context (Hypothesis 3), we plotted the predicted probabilities of falling into a given latent class by welfare context and health in Figure 4, which revealed some interesting patterns. For example, belonging to the unstable repartnering groups was related to better health among lone mothers in the market-oriented welfare context compared to the other two contexts. Yet, among lone mothers in the market-oriented welfare context, belonging to the traditional lone mother profile that entered lone parenthood after separation was related to worse health compared to the general and dual earner context. Belonging to the stable repartnering trajectories was related to better health for those

mothers within the dual earner welfare context, particular for the profile with higher chances of cohabitation preceding marriage (Class 5).

4. Discussion

The present study examined the link between mothers' long-term trajectories of repartnering after having experienced at least one full year of lone parenthood and self-rated health. Lone parents have long known to be at a higher risk for a range of poorer health outcomes compared to coupled mothers (e.g., Burstrom et al., 2010; Kühn, 2017; Wickrama, Lorenz, Conger, Elder, Todd Abraham, & Fang, 2006), and repartnering has been proposed to be one possible way to improve lone mothers' health. Yet this perspective could imply widening inequalities by gender and family forms. Because the prevalence of higher-order unions among lone parents has increasing substantially across cohorts and repartnering is now occurring at a much faster pace (Bernardi et al., 2017), our study addressed this timely issue by contributing to the mixed prior evidence on repartnering and health. In doing so, we took a holistic latent class approach (Mikolai & Lyons-Amos, 2017), which enabled us to examine whole higher-order partnership histories for different cohorts of lone mothers aged 15-55 years and link the derived latent repartnering trajectories to health subsequently. Specifically, it has been argued that finding a new partner may liberate mothers' added strain of being the sole main breadwinner and caregiver in the household, if the new partner is contributing financially to the household expenses or taking over householdand care duties (i.e., resource model; Williams & Umberson, 2004). In addition, mothers' health may further benefit from emotional support that a new partner could provide.

On the contrary, experiencing another family transition, whether it is perceived positively or negatively, could also add additional stress to the family configuration, which harms lone mothers' health (i.e., crisis model; Cooper et al., 2009; Meadows et al., 2008). In our models, we found no systematic links between the repartnering trajectories and health and therefore no support for either the crisis or the resource model. We could therefore not confirm our hypothesis that particularly unstable repartnering trajectories (i.e., mothers will be most likely to be single toward the end of the observation period) would be associated with poorer health. One potential explanation for this zero effect could be that the selective nature of repartnering itself because healthier and more privileged mothers are also more likely to repartner (e.g., Bastin, 2012; Pevalin & Ermisch, 2004). Nevertheless, if that were the case, we may also expect poorer health for both classes of traditional lone mothers with the highest chances to remain single throughout the whole observation period, which was not the case.

Because both patterns of repartnering and health have been shown to depend on characteristics of a given welfare context (e.g., Burstrom et al., 2010; De Graaf & Kalmijn, 2003), we also considered the

role of welfare contexts in shaping repartnering trajectories as well as its links to health. Three welfare contexts were selected based on a classification of family policies by Burstrom and colleagues that differ considerably in their amount of support they offer for families, which in turn affects lone mothers' opportunities and need to repartner (Ivanova et al., 2013). Each welfare context was represented by two countries in our analyses: Sweden and Norway for the dual-earner model, Switzerland and the UK for the market-oriented model, and Germany and France for the general model. In line with our second hypothesis, we did observe that mothers in the least generous market-oriented welfare context were most likely to belong to the more unstable repartnering trajectories. Patterns were less clear for the likelihood to belong to the other repartnering trajectories by welfare context. This finding could therefore indicate that lacking state support may rush lone mothers into more precarious unions that dissolve over time out of economic need (Dewilde & Uunk, 2008). Relatedly, Pasteels and Mortelmans (2017) found that women in lower income quintiles were more likely to repartner compared to their more affluent counterparts, which seems to support the economic need hypothesis as one driver of repartnering strategies.

Although there was no systematic link between repartnering trajectories and health, the pattern of results changed when we introduced welfare context as a moderator in this association. Our expectation that limited state support to amplify the potential negative link between unstable repartnering and health was not confirmed because results indicated that mothers who were likely to belong to the unstable repartnering patterns in the market-oriented welfare context reported in fact better health. It is important to note, however, that even though our latent classification of repartnering trajectories was not explicitly based on the number of higher-order unions, regression analyses showed that particularly mothers in the stable repartnering trajectories were most likely to report having had multiple higher-order unions over the observation periods (i.e., "serial repartnering"). For mothers in the unstable repartnering trajectories, only those with earlier repartnering (Class 3) were more likely to report multiple higher-order unions. Thus, one could conclude that because lone mothers may not always be able to count on strong paternal support in the first place, some—rather than no—repartnering (without the burden of experiencing multiple repartnering transitions) may still be a viable and adaptive *coping strategy* within a policy and welfare context that offers only limited support for families in general and family-work reconciliation specifically (Dewilde & Uunk, 2008; Thévenon, 2011).

The finding that multiple, potentially back-to-back, repartnering patterns of mothers in the stable trajectories were not related to overall or context-specific health detriments seems particularly striking because reoccurring repartnering has been shown to be most detrimental for mothers' health (Bastin, 2012; Williams et al., 2008), potentially because of a cumulative resource drain due to the repeated

emotional and economic investment into a new union (Osborne et al., 2012). Repartnering, with or without new-partner fertility, also reduces investments of the biological father (Berger et al., 2012), which could put additional strain on the lone mother. One could argue that an important mechanism behind this zero effect might be the expansion of social networks due to new partners (Keim, 2017). Repartnering could be a way to expand one's network and to form additional meaningful ties, which may endure relationship break-ups as well, and in turn offset potential health risks.

5. Limitations and Conclusion

Our study suffers from several limitations. First, we acknowledge that welfare state classifications can only serve as crude proxy and simplification of complex policy regimes that may overstate similarities between countries grouped into one category (e.g., Thévenon, 2011). For example, Germany and France are both grouped into the general family model despite considerable differences with regard to the provision of childcare in both countries. Further within-country differences may also arise in certain contexts are not accounted for in the present classification, which can also vary across cohorts (e.g., differences in the provision of childcare between East and West Germany; Pfau-Effinger & Smidt, 2011). Nevertheless, we ran additional sensitivity tests that used the six country indicators rather than welfare context in our analyses and the patterns of results remained largely unchanged (results not shown here).

Second and due to restrictions in the available survey data, we measured health with a global, single-item indicator that relies on individuals' self-assessment and may therefore be prone to bias. This indicator, however, has shown to effectively and reliably capture multiple dimensions of health and is considered to be a good proxy of the overall health status as well as a reliable predictor of mortality (Idler & Benyamini, 1997). We aimed at including measures of mental health as well, but these measures were not available across all the surveys. Lastly, on a conceptual level, we consider health to be an outcome of repartnering trajectories, yet in our analyses, we incorporated it as a distal predictor of latent class membership (Asparouhov & Muthén, 2014). Since we cannot make causal claims about the link repartnering trajectories and health, we do acknowledge the possibility of a self-selection into repartnering trajectories by health, both modeling strategies (i.e., health as outcome vs. as predictor) seem feasible. Jointly shaped processes and reverse causality are pervasive in many studies on mental health (Adams, Hurd, McFadden, Merrill, & Ribeiro, 2003). Future studies will need to disentangle the directionality of these effects.

Third, it has been shown that different clustering techniques for modeling age-graded trajectories often yield solutions, which call the validity of these results and the usefulness of the models into questions (Warren, Luo, Halpern-Manners, Raymo, & Palloni, 2015). Nevertheless, the presented holistic

modeling approach seems most suitable for our research question that concerned the correlates of a life course trajectory with multiple transitions over an extended period of time compared to single-episode event history models (Mikolai & Lyons-Amos, 2017). We also tried to replicate our six-class latent trajectory solution using sequence analysis with optimal matching in R (Struder, 2013). Despite come differences concerning the optimal number of clusters (e.g., better fit indices for solutions with more than six clusters), the six-cluster solution largely resembled our derived latent trajectories (results not shown).

Our results underline that socio-political and economic developments are crucial to understand health disparities or benefits in light of complex partnership histories. We hope that this research will stimulate future work on the dynamic nature of policy implications on interwoven life course domains such as union histories and health, as well as tracking the impact of policy changes in those associations. Other potential mediators, such as work histories or the evolution of lone mothers' social networks, should be taken into consideration as well.

6. References

Adams, P., Hurd, M. D., McFadden, D., Merrill, A., & Ribeiro, T. (2003). Healthy, wealthy, and wise? Tests for direct causal paths between health and socioeconomic status. *Journal of Econometrics*, *112*(1), 3-56.

Amato, P. R. (2010). Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*, *72*(3), 650-666. doi:10.1111/j.1741-3737.2010.00723.x

Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in Mixture Modeling: Three-step approaches using Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, *21*(3), 329-341. doi:10.1080/10705511.2014.915181

Avison, W. R., & Davies, L. (2005). Family structure, gender, and health in the context of the life course. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *60*(2), 113-S116. doi:10.0.4.69/geronb/60.Special_Issue_2.S113

Bastin, S. (2012). Dynamik alleinerziehender Mutterschaft: Partnerschaftsverläufe in der frühen Elternschaftbiographie [Dynamics of lone motherhood: Partnership trajectories in early parental biography]. *Zeitschrift für Familienforschung,* 201-228.

Beaujouan, E. (2012). Repartnering in France: The role of gender, age and past fertility. *Advances in Life Course Research*, *17*(2), 69-80. doi:10.1016/j.alcr.2012.03.001

Benzeval, M. (1998). The Self-Reported Health Status of Lone Parents. *Social Science & Medicine*, *46*(10), 1337-1353. doi:10.1016/S0277-9536(97)10083-1

Berger, L. M., Cancian, M., & Meyer, D. R. (2012). Maternal re-partnering and new-partner fertility: Associations with nonresident father investments in children. *Children and Youth Services Review*, *34*(2), 426-436. doi:10.1016/j.childyouth.2011.11.012

Bernardi, L., Mortelmans, D., & Larenza, O. (2017). Changing lone parents, changing life courses. In L. Bernardi & D. Mortelmans (Eds.), *Lone Parenthood in the Life Course*, pp. 5-30. New York, NY: Springer. doi:10.1007/978-3-319-63295-7_1

Berrington, A. (2014). The changing demography of lone parenthood in the UK. *ESRC Center for Population Change*, Working paper 48.

Burstrom, B., Whitehead, M., Clayton, S., Fritzell, S., Vannoni, F., & Costa, G. (2010). Health inequalities between lone and couple mothers and policy under different welfare regimes: The example of Italy, Sweden and Britain. *Social Science & Medicine,* *70*(6), 912-920. doi:10.1016/j.socscimed.2009.11.014

Brady, D., & Burroway, R. (2012). Targeting, universalism, and single-mother poverty: A multilevel analysis across 18 affluent democracies. *Demography*, *49*(2), 719–746. doi:10.1007/s13524-012-0094-z

Bzostek, S. H., McLanahan, S. S., & Carlson, M. J. (2012). Mothers' repartnering after a nonmarital birth. *Social Forces*, *90*(3), 817-841. doi:10.1093/sf/sos005

Cooper, C. E., McLanahan, S. S., Meadows, S. O., & Brooks-Gunn, J. (2009). Family structure transitions and maternal parenting stress. *Journal of Marriage and Family*, *71*(3), 558-574. doi:10.1111/j.1741-3737.2009.00619.x

De Graaf, P. M., & Kalmijn, M. (2003). Alternative routes in the remarriage market: Competing-risk analyses of union formation after divorce. *Social Forces*, *81*(4), 1459-1498. doi:10.1353/sof.2003.0052

Dewilde, C., & Uunk, W. (2008). Remarriage as a way to overcome the financial consequences of divorce: A Test of the economic need hypothesis for European women. *European Sociological Review*, *24*(3), 393-407. doi:10.1093/esr/jcn025

Eurostat (2015). *People in the EU: Statistics on household and family sructures*. Retrieved from http://ec.europa.eu/eurostat/statistics-explained/index.php?title=People_in_the_EU_-_statistics_on_household_and_family_structures

Ermisch, J., & Francesconi, M. (2000). The increasing complexity of family relationships: Lifetime experience of lone motherhood and stepfamilies in Great Britain. *European Journal of Population*, *16*(3), 235-249. doi:10.1023/A:1026589722060

Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, *38*(1), 21-37.

Ivanova, K., Kalmijn, M., & Uunk, W. (2013). The effect of children on men's and women's chances of re-partnering in a European context. *European Journal of Population*, *29*(4), 417-444. doi:10.1007/s10680-013-9294-5

Keim, S. (2017). Are lone mothers also lonely mothers? Social networks of unemployed lone mothers in Eastern Germany. In Bernardi & D. Mortelmans (Eds.), *Lone parenthood in the Life Course*, pp. 139-169. New York, NY: Springer. doi:10.1007/978-3-319-63295-7_6

Kennedy, S., & Bumpass, L. (2008). Cohabitation and children's living arrangements: New estimates from the United States. *Demographic Research*, *19*, 1663-1692. doi:10.4054/DemRes.2008.19.47

Kühn, M. (2017). Changes in lone mothers' health: A longitudinal analysis. In Bernardi & D. Mortelmans (Eds.), *Lone parenthood in the Life Course*, pp. 357-373. New York, NY: Springer. doi:10.1007/978-3-319-63295-7_15

Mayer, K. U. (2004). Whose lives? How history, societies and institutions define and shape life courses. *Research in Human Development, 1*(3), 161-187. doi:10.1207/s15427617rhd0103_3

Meadows, S. O., McLanahan, S. S., & Brooks-Gunn, J. (2008). Stability and change in family structure and maternal health trajectories. *American Sociological Review, 73*(2), 314-334. doi:10.1177/000312240807300207

Mikolai, J., & Lyons-Amos, M. (2017). Longitudinal methods for life course research: A comparison of sequence analysis, latent class growth models, and multi-state event history models for studying partnership transitions. *Longitudinal and Life Course Studies, 8*(2), 191-208. doi:10.14301/llcs.v8i2.415

Millar, J. (2010). Lone mothers, poverty and paid work in the UK. In S. Chant (Ed.), *The International Handbook of Gender and Poverty: Concepts, Research and Policy* (pp. 147-152). Cheltenham, UK: Edward Elgar.

Osborne, C., Berger, L. M., & Magnuson, K. (2012). Family structure transitions and changes in maternal resources and well-being. *Demography, 49*(1), 23-47. doi:10.1007/s13524-011-0080-x

Pasteels, I., & Mortelmans, D. (2017). The socioeconomic determinants of repartnering after divorce and separation in Belgium. *Demographic Research, 36*(58), 1785-1812. doi:10.4054/DemRes.2017.36.58

Perelli-Harris, B., Kreyenfeld, M., & Kubisch, K. (2011). Technical manual for the Harmonized Histories database. *MPIDR Working Paper* 011. Rostock, Germany: Max Planck Institute for Demographic Research.

Perelli-Harris, B., & Lyons-Amos, M. (2015). Changes in partnership patterns across the life course: An examination of 14 countries in Europe and the United States. *Demographic Research, 33*, 145-178. doi:10.4054/DemRes.2015.33.6

Pevalin, D. J., & Ermisch, J. (2004). Cohabiting unions, repartnering and mental Health. *Psychological Medicine, 34*(8), 1553-1559. doi:10.1017/S0033291704002570

Pfau-Effinger, B., & Smidt, M. (2011). Differences in women's employment patterns and family policies: Eastern and Western Germany. *Community, Work & Family, 14*(2), 217-232. doi:10.1080/13668803.2011.571401

Pollmann-Schult, M. (2017). Single motherhood and life satisfaction in comparative perspective: Do institutional and cultural contexts explain the life satisfaction penalty for single mothers? *Journal of Family Issues*. Advance online publication. doi:10.0.4.153/0192513X17741178

Poortman, A. R. (2007). The first cut is the deepest? The role of the relationship career for union formation. *European Sociological Review, 23*(5), 585-598. doi:10.1093/esr/jcm024

Régnier-Loilier, A., Beaujouan, É., & Villeneuve-Gokalp, C. (2009). Neither single, nor in a couple. A study of living apart together in France. *Demographic Research*, *21*, 75-108. doi:10.4054/DemRes.2009.21.4

Schnor, C., Pasteels, I., & Van Bavel, J. (2017). Sole physical custody and mother's Repartnering after Divorce. *Journal of Marriage and Family, 79*, 879-890. doi:10.1111/jomf.12389

Sobotka, T., & Toulemon, L. (2008). Changing family and partnership behaviour: Common trends and persistent diversity across Europe. *Demographic Research*, *19*(6), 85-138. doi:10.4054/DemRes.2008.19.6

Struder, M. (2013). WeightedCluster library manual: A practical guide to create typologies of trajectories in the social sciences with R. *LIVES Working Papers 24*. Lausanne, Switzerland: NCCR LIVES.

Struffolino, E., Bernardi, L., & Voorpostel, M. (2016). Self-reported health among lone mothers in Switzerland: Do employment and education matter? *Population*, *71*(2), 187-213. doi:10.3917/pope.1602.0187

Thévenon, O. (2011). Family policies in OECD countries: A comparative analysis. *Population and Development Review, 37*(1), 57-87. doi:10.1111/j.1728-4457.2011.00390.x

Vanassche, S., Corijn, M., Matthijs, K., & Swicegood, G. (2015). Repartnering and childbearing after divorce: Differences according to parental status and custodial Arrangements. *Population Research and Policy Review*, *34*(5), 761-784. doi:10.1007/s11113-015-9366-9

Warren, J. R., Luo, L., Halpern-Manners, A., Raymo, J. M., & Palloni, A. (2015). Do different methods for modeling age-graded trajectories yield consistent and valid results? *American Journal of Sociology, 120*(6), 1809-1856. doi:10.1086/681962

Wickrama, K. S., Lorenz, F. O., Conger, R. D., Elder, G. H. Jr., Todd Abraham, W., & Fang, S. (2006). Changes in family financial circumstances and the physical health of married and recently divorced mothers. *Social Science & Medicine, 63*(1), 123-136. doi:10.1016/j.socscimed.2005.12.003

Williams, K., Sassler, S., & Nicholson, L. M. (2008). For better or for worse? The consequences of marriage and cohabitation for single mothers. *Social Forces*, *86*(4), 1481-1511. doi:10.1353/sof.0.0057

Williams, K., & Umberson, D. (2004). Marital status, marital transitions, and health: A gendered life course perspective. *Journal of Health and Social Behavior*, *45*(1), 81-98. doi:10.1177/002214650404500106
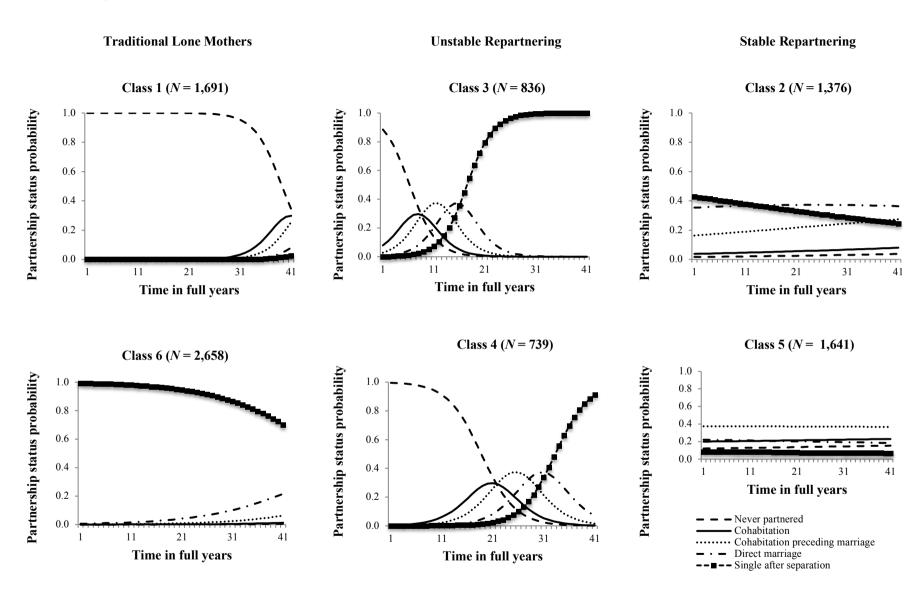
Traditional Lone Mothers

Unstable Repartnering

Stable Repartnering

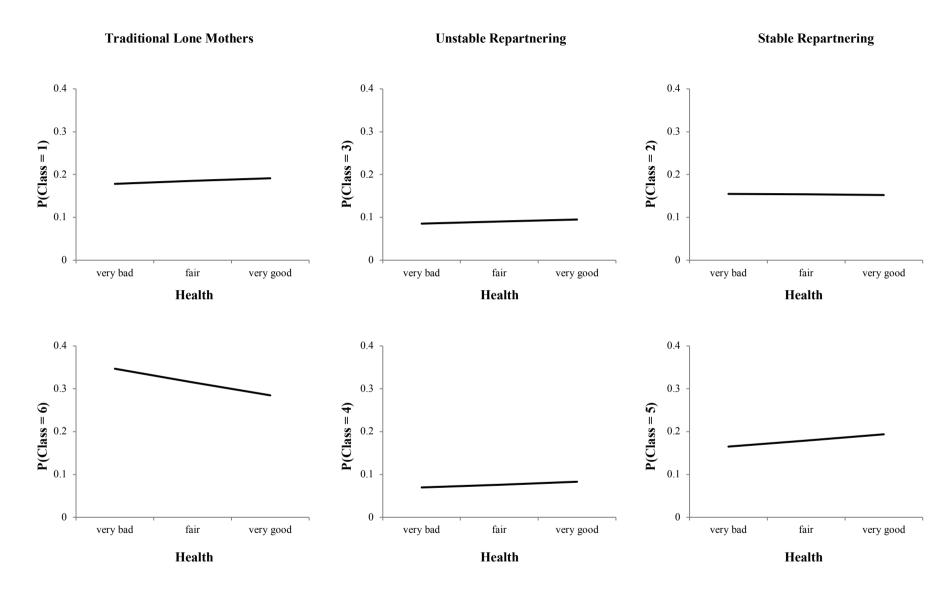*Figure 1: Latent Classes of Repartnering Trajectories for the Six-Class Solution*

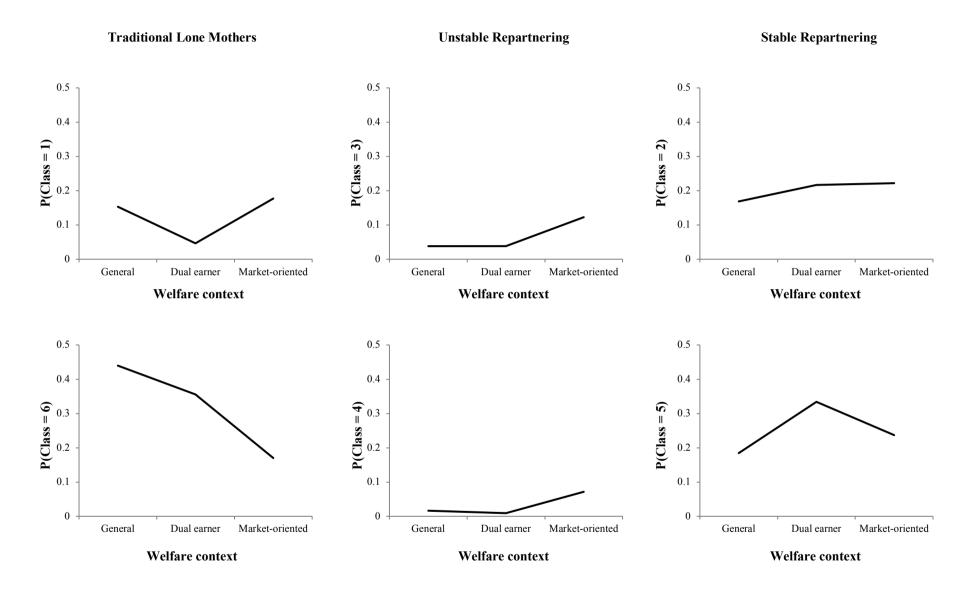*Figure 2: Predicted Probabilities by Health for Each Latent Class*

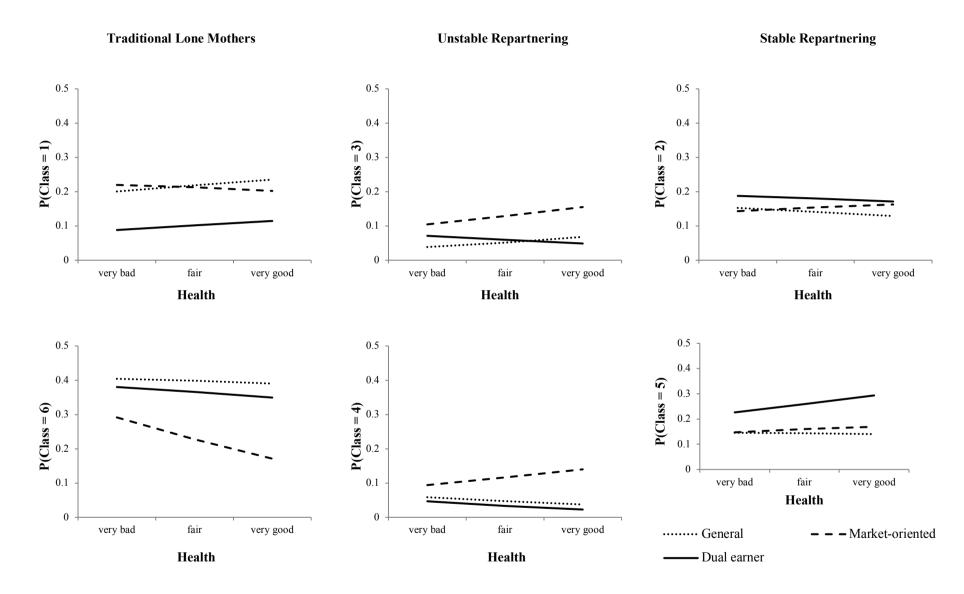*Figure 3: Predicted Probabilities by Welfare Context for Each Latent Class*

Figure 4: Predicted Probabilities by Welfare Context and Health for Each Latent Class

Table 1: Descriptive Sample Statistics by Country (*N* pooled = 8,941)

Indicators	General Model		Dual Earner Model		Market-oriented Model	
	GGS Germany	GGS France	GGS Norway	GGS Sweden	BHPS UK	FGS Switzerland
N (%)	1,162 (13.0)	1,270 (14.2)	1,588 (17.8)	1,086 (12.1)	3,041 (34.0)	794 (8.9)
Survey year	2005	2005	2007-2008	2012-2013	2005-2006	2013
Age at Interview, *M* (*SD*)	51.36 (15.69)	52.03 (14.29)	50.72 (15.69)	55.45 (12.61)	49.36 (13.70)	55.19 (12.46)
Cohort, *N* (%)						
1920/30s	276 (23.8)	259 (20.4)	174 (11.0)	109 (10.0)	409 (13.5)	62 (7.8)
1940/50s	415 (35.7)	552 (43.5)	736 (45.7)	499 (46.0)	1,301 (42.8)	365 (46.0)
1960/70s	424 (36.5)	428 (33.7)	653 (41.1)	441 (40.6)	1,224 (40.2)	339 (42.7)
1980/90s	47 (4.0)	31 (2.4)	35 (2.2)	37 (3.4)	107 (3.5)	28 (3.5)
Education, *N* (%)						
Low	258 (22.7)	580 (45.7)	421 (26.8)	168 (15.5)	794 (28.0)	170 (21.5)
Medium	656 (57.8)	461 (36.3)	685 (43.5)	567 (52.5)	1,010 (35.7)	481 (60.8)
High	221 (19.5)	229 (18.0)	467 (29.7)	346 (32.0)	1,030 (36.3)	140 (17.7)
Number of higher-order unions, *M* (*SD*)	0.49 (0.73)	0.63 (0.90)	0.85 (0.90)	0.95 (0.92)	0.96 (0.67)	0.86 (0.89)
Number of children, M (SD)	2.04 (1.15)	2.36 (1.47)	2.26 (1.03)	2.26 (1.01)	2.47 (1.28)	2.04 (0.96)
Age at first lone mother episode, *M* (*SD*)	26.73 (7.13)	30.77 (8.65)	30.66 (8.87)	32.12 (8.82)	27.71 (7.60)	28.52 (7.55)
Total years as lone mother, *M* (*SD*)	11.93 (8.78)	9.60 (7.81)	7.64 (6.28)	8.07 (6.82)	12.38 (8.52)	8.94 (7.63)
Self-rated health, *M* (*SD*)	3.73 (0.88)	3.70 (0.91)	3.24 (1.21)	3.91 (0.93)	3.67 (1.00)	3.71 (0.89)

Notes. Self-rated health ranged from 1 "very bad" to 5 "very good".

Table 2: Goodness of Fit Statistics for the nested Latent Class Growth Curve Models (N = 8,941)

Classes	-LL	npar	AIC	BIC	SA-BIC	Entropy	VLM-Rubin	LM-Rubin
1	-244904.27	5	489818.55	489854.04	489838.15	-	-	-
2	-181939.92	8	363895.85	363952.64	363927.21	.98	< .001	.33
3	-154742.53	11	309507.05	309585.14	309550.18	.97	< .001	< .001
4	-144411.43	14	288850.86	288950.24	288905.75	.96	< .001	< .001
5	-139113.67	17	278261.34	278382.01	278327.99	.95	< .001	< .001
6	**-134192.56**	**20**	**268425.13**	**268567.09**	**268503.54**	**.93**	**< .001**	**< .001**
7	-131319.66	23	262685.32	262848.58	262775.49	.93	< .01	< .01
8	-128625.29	26	257302.59	257487.15	257404.52	.91	.06	.08

Notes. LL = log likelihood; npar = number of free parameters; AIC/BIC = Akaike/Bayesian information criterion; SA-BIC = sample-size adjusted BIC;

V/LM-Rubin = Vuong-/Lo-Mendell-Rubin likelihood ratio test. Dash indicates criterion was not applicable to the model. Bold type indicates selected model.

Table 3: Regression Results for Distal Variables for the Final Six-Latent Class Growth Model (N = 8,941)

	Traditional LP	Unstable Repartnering		Stable Repartnering	
Distal variables	Class 6	Class 3	Class 4	Class 2	Class 5
Model 1					
Health	-0.16 (0.08)[*]	-0.06 (0.04)	0.02 (0.04)	-0.11 (0.05)[*]	-0.09 (0.02)[***]
Model 2					
Market-oriented model [a]	-1.13 (0.04)[***]	0.98 (0.15)[***]	1.33 (0.13)[***]	0.15 (0.07)	0.12 (0.05)[*]
Dual earner model [a]	1.01 (0.12)[***]	1.17 (0.12)[***]	0.61 (0.02)[***]	1.45 (0.06)[***]	1.78 (0.06)[***]
Model 3					
Health	-0.12 (0.08)	-0.03 (0.19)	-0.13 (0.13)	-0.14 (0.12)	-0.12 (0.14)
Market-oriented model [a]	-0.78 (0.15)[***]	0.44 (0.52)	0.28 (0.34)	-0.53 (0.33)	-0.45 (0.37)
Dual earner model [a]	0.92 (0.07)[***]	1.77 (0.24)[***]	0.92 (0.22)[***]	1.22 (0.18)[***]	1.37 (0.19)[***]
Health x market-oriented	-0.08 (0.05)	0.16 (0.09)	0.28 (0.05)[***]	0.18 (0.07)[**]	0.15 (0.08)
Health x dual earner	0.02 (0.04)	-0.17 (0.09)	-0.12 (0.06)[*]	0.06 (0.06)	0.11 (0.06)

Notes. Cells show B (SE). Reference category is Class 1. [a] Reference category is general family model. All models control for age at first LP episode, cohort, education, number of children, and number of higher-order unions. [*] $p < .05$ [**] $p < .01$. [***] $p < .001$.