MATTHIJS KALMIJN AND PAUL M. DE GRAAF   *Tilburg University*

Life Course Changes of Children and Well-being

of Parents

How do children's life course transitions affect the well-being of their parents? Using a large panel survey among parents with longitudinal information on 2 randomly chosen children, the authors analyzed the effects of children's union formation, parenthood, and union dissolution on changes in depressive symptoms of parents. Negative effects were found for children's divorce, and positive effects were found for children's marriage and parenthood. Mothers suffered more from a child's divorce or separation than fathers. Effects depended in part on the parent's traditional family norms, pointing to a normative explanation of life course effects. Little evidence was found for explanations in terms of altruism or selfish motivations. In a more general sense, this article supports the notion of linked lives suggested by the life course perspective. This research provides stronger support for this notion than the few previous studies that have examined it.

Much research has examined how life course changes of parents affect children. Researchers have found that experiencing a parental divorce can be harmful for the well-being of young children (Amato, 2000; Cherlin, Chase-Lansdale, & McRae, 1998; McLanahan & Sandefur, 1994;

Sigle-Rushton, Hobcraft, & Kiernan, 2005; Uhlenberg & Mueller, 2003). Much less is known about the reverse causal effect, that is, the influence that children's life course transitions may have on parents' well-being. How are parents affected by whether their children marry, have children, and experience a divorce or separation themselves?

At first, such effects would seem less likely—after all, children are not responsible for socializing their parents, and children typically offer few resources to parents. Nevertheless, there are also reasons to believe that such "reversed" life course effects may occur. Parents care very much about their children, so it seems plausible that they are affected by what happens to them (Knoester, 2003). Evidence indicates that parents do a great deal of worrying about their adult children (Sechrist, Suitor, Vargas, & Pillemer, 2011). Parents may also feel proud of or shamed by the decisions their children make, and such feelings may affect their own well-being (Pillemer, Suitor, Pardo, & Henderson, 2010). These feelings may be especially important for parents because parents have socialized their children and hence may feel that they are partly responsible for how their children turn out as adults (Ryff, Lee, Essex, & Schmutte, 1994).

So far, there is little evidence available on the effects of children's life course transitions on parental well-being. Some studies have examined how children's personal problems affect parents. These studies used cross-sectional data and showed that parents with children who experienced "personal problems" had a higher

Department of Sociology, Tilburg School of Social and Behavioral Sciences, Tilburg University, P.O. Box 90153, 5000 LE Tilburg, The Netherlands (matthijskalmijn@gmail.com).

level of depression and stress than parents of children who did not experience such problems (Greenfield & Marks, 2006; Pillemer & Suitor, 1991). Some cross-sectional research also has shown that when children have more problems in their relationships (as perceived by parents), parents feel more ambivalent toward these children (Birditt, Fingerman, & Zarit, 2010). Because feelings of ambivalence are related to depressive feelings (Birditt et al.), this also hints at possible negative effects of divorce and separation.

Cross-sectional data hinder conclusions about causality; studies that focus directly on children's life course transitions are more appropriate, but these are rare. A recent and important exception is a study conducted by Milkie, Bierman, and Schieman (2008). They analyzed longitudinal data on elderly parents over a 4-year interval. They found no effect of children's divorce on changes in parents' level of depression. A number of studies also have examined how the departure of children from the parental home affects parents (White & Edwards, 1990). Because nest leaving is a transition that is experienced by children and parents, it is different conceptually from transitions such as a child's marriage and divorce.

Although the evidence is not encouraging so far, more longitudinal studies are needed before a negative conclusion can be formulated. In addition, if effects of children's events on parental well-being are present, explanatory research is needed to understand these effects. For this reason, we reexamined this issue using a large longitudinal nationally representative sample of parents and children in The Netherlands (the Netherlands Kinship Panel Study [NKPS]; Dykstra et al., 2004). In contrast to earlier studies, we focused on demographic life course transitions and not on other personal problems that children may experience in the life course (e.g., automobile accidents). At the same time, we broadened the outcome by considering both positive and negative life course transitions (marriage, parenthood, and divorce). Because cohabitation is widely accepted in The Netherlands as an alternative form of marriage, we included cohabitation in the married category (Soons & Kalmijn, 2009). In addition, the NKPS data allowed us to test specific hypotheses about the underlying mechanisms behind the effects that children can have on parents. We conducted the tests by considering the intermediating role

of relationship quality and by considering interaction effects of family norms on the one hand and relationship quality on the other hand.

THEORETICAL BACKGROUND AND HYPOTHESES

We distinguished among three approaches to understand the effects of children's life course transitions on parents' well-being, respectively based on (a) social norms, (b) altruism, and (c) selfishness.

Normative Perspective

The first approach is based on the notion that the occurrence and the evaluation of life course transitions are guided by social norms (Liefbroer & Billari, 2010; Thornton & Young-DeMarco, 2001). Traditionally, there have been strong norms saying that a person should not divorce or separate unless there are grave circumstances to do so. Although norms against divorce have weakened over time and vary considerably across countries with different levels of development and divorce rates (Gelissen, 2003), a divorce is still not a generally approved life course transition. Pillemer and Suitor (1991) argued that norms about life course transitions also will influence how parents think and feel about their children (Pillemer et al., 2010). More specifically, one could argue that because there are norms against divorce, parents could experience feelings of shame and failure when their children divorce, and these feelings may in turn lead to a decline in well-being and an increase in depressive feelings (Orth, Berking, & Burkhardt, 2009; Pillemer et al.).

One can use the same logic to understand why a child's marriage or parenthood would affect parents positively. There are general norms in virtually all societies prescribing that people should marry and form a family. Although being single and childless has become more widely accepted (Noordhuizen, de Graaf, & Sieben, 2010), having a family is still considered a more desirable and "normal" state than being single and childless. As a result, parents could feel proud when their children get married and become parents themselves, and this should result in an increase in parents' well-being.

The normative perspective is not unique in predicting effects of children's life course transitions on parents' well-being (as will become clear later in this article). To test the

explanatory power of the normative perspective more directly, additional hypotheses need to be specified. We argued that if the normative theory is valid, one would expect that the effects of children's life course transitions are weaker when parents have more liberal family values. If parents do not support the traditional norm against divorce, for example, then they should not feel ashamed and should not regard their child's divorce as a failure on their part. Similarly, if parents are strong supporters of the institution of marriage, then they should be more proud if their children marry than when parents do not think marriage is important. There may also be a significant distinction between marriage and cohabitation. We treat these as equal in the analyses reported below but provide additional analyses that examined whether there are differential effects.

Altruistic Perspective

A second approach is based on the notion that parents are altruistic. Although there are many definitions of *altruism*, a common one is that the utility of another person is included in the utility function of oneself (Kolm & Ythier, 2006). In other words, we feel sad if another person is sad, and we feel happy if another person is happy. In social psychological work on altruism, altruism is based on the principle of *empathy*, that is, the capacity to take on the role of the other person (Batson, 1998). In work on intergenerational transfers, some authors have argued that altruism is what drives parents' feelings and behavior toward their children (Arrondel & Masson, 2006; Logan & Spitze, 1995). For example, in Western societies, parents tend to give more support to children than they receive back from them, even at very high ages (Kohli, 1999). Similarly, parents give more time and money to children who are in the most need than to children who do not need so much, suggesting that parents take the well-being of their children into account in their own behavior (Altonji, Hayashi, & Kotlikoff, 1992; Cox & Rank, 1992; Hochguertel & Ohlsson, 2007; Suitor, Pillemer, & Sechrist, 2006). On the basis of this conceptualization of altruism, one would also expect that parents experience a decline in well-being when their children divorce and an increase in well-being when their children marry and have children. The logic behind this hypothesis is that parents' well-being changes

because children's well-being changes after such transitions (Knoester, 2003).

There is considerable evidence supporting the assumption that children themselves are affected by the life course transitions they experience. Research has widely documented the positive effects of entry into marriage on well-being and the negative effects of divorce (Kalmijn & Monden, 2006; Simon, 2002; Williams, 2003). Although there is also heterogeneity in the effects of marriage and divorce, the average effects are significant as well. For parenthood, however, the findings are less clear. Positive and negative effects of becoming a parent occur at the same time, and these effects also depend on a range of other conditions, such as age, marital status, and so forth (Umberson, Pudrovska, & Reczek, 2010). Hence, on average, there will probably be no positive effect of becoming a parent on a child's well-being, and we would therefore not expect—from the altruistic perspective—that parents' well-being would increase when their children become parents.

Additional hypotheses can be formulated to test the altruistic theory more directly. If the altruistic theory is valid, we would also expect that the effects of children's life course transitions are weaker when the relationship between parent and child is poorer. People tend to be more empathic toward persons to whom they are closer (Batson, 1998), so parents would suffer less for their child if their relationship with the child is poor or nonexistent to begin with. We realize that there are other definitions of altruism that do not imply this interaction. For example, evolutionary theories on altruism suggest that parents care for their children even if their relationship with the child is poor (Elster, 2006). Our approach to altruism is based on empathy, and empathy is enhanced by emotional closeness to and similarity with the other person.

Selfishness Perspective

A third reason why children's transitions could affect parents lies in selfish motives. When children get married, have children, or separate, the relationship they have with their parents may change, and this may affect parents directly. Parenthood is the most telling example because this transition brings the parent a grandchild. If none of the parents' other children are parents yet, it even means a new transition, to grandparenthood. Parents can also be affected

directly because the relationship they have with the child can change when the child experiences certain life course transitions. If a certain life course transition of a child improves the relationship between parent and child, one would expect that the well-being of parents increases. Similarly, a negative life course transition may introduce strains in the parent–child relationship and thereby reduces parental well-being. Earlier research has confirmed that the quality of the parent–child relationship has an important effect on the well-being of parents (Umberson, 1992).

Although plausible at first glance, this hypothesis relies on the assumption that positive life course transitions of children improve the parent–child relationship and that negative life course transitions deteriorate it. Research suggests that this assumption may not always be true. Although marriage may bring parents and children closer together emotionally, it also reduces the amount of contact that parents have with their child or children (Sarkisian & Gerstel, 2008). A mix of positive and negative effects occurs for divorce as well. On the one hand, children who divorce may be preoccupied with their own problems and support their parents to a lesser extent than they did before (Dykstra, 1997). On the other hand, a divorce may bring parents and children closer together as the children try to seek social and emotional support from parents (Spitze, Logan, Deane, & Zerger, 1994).

Summary

We now summarize our discussion with a series of hypotheses. Our first hypothesis is general in the sense that it is implied by all three theoretical perspectives. First, a child's life course transition significantly affects the well-being of the child's parents (positively for marriage and parenthood, negatively for divorce; Hypothesis 1). Note that the altruistic perspective does not predict an effect for parenthood. From the normative perspective, we deduced the following, additional hypothesis: The effects of marriage, parenthood, and divorce are weaker when parents have more liberal family values (Hypothesis 2). From the altruistic perspective, we deduced our third hypothesis: The effects of marriage and divorce are weaker when the parent–child relationship is poorer (Hypothesis 3). Finally, from the selfishness

perspective, we expected that the effects of marriage, parenthood, and divorce would be explained in part by changes in the quality of the parent–child relationship (Hypothesis 4).

Other Variables

In the analyses, we included parents' age, education, and marital status, because these variables are known to affect well-being and are possibly also correlated with characteristics of children (Diener, Suh, Lucas, & Smith, 1999; Mirowsky & Ross, 1986). We analyzed the results separately for fathers and mothers, although we had no prior hypotheses about such differences. It is important to check, however, whether results are similar or different for fathers and mothers, because studies in the field of intergenerational support often do find differences. For example, mother–child relations tend to be stronger and more supportive than father–child relations (Kahn, McGill, & Bianchi, 2011; Kalmijn, 2007; Rossi & Rossi, 1990), something that would perhaps suggest that negative life course transitions of children would be more detrimental for mothers. In the same line, one could argue that mothers are more empathic than fathers (Rueckert & Naybar, 2008) and that therefore the altruistic perspective would be more valid for mother than for fathers. These considerations are sufficient reason to explore the effects for fathers and mothers separately.

METHOD

The data we used come from two waves of the NKPS, collected in 2002–2004 and 2006–2007, respectively. The NKPS is based on a representative sample of the Dutch population (Dykstra et al., 2004). Respondents were interviewed at home and filled out a written questionnaire immediately after the interview. In the first wave, 8,161 respondents participated. In the second wave, which took place 3 to 4 years later, 6,670 respondents were reinterviewed (74%). In comparison to earlier work on the topic, these are quite substantial sample sizes. Detailed questions were asked about relationships with at most eight specific family members. Among these were two (randomly chosen) biological children age 15 years and older. In the second wave, the same questions were asked about the same family members. For this article, we analyzed data from respondents

who had at least one child who was age 15 years or older in the first wave (*N* = 2,705).

Respondents reported about two randomly chosen children (or one, if they had only one child). The data can therefore be analyzed at the level of parent–child dyads or at the level of individual parents. Because relationship quality is an important variable in the analysis, we decided to use parent–child dyads as units (*N* = 3,812). We corrected the standard errors for the clustering of children within parents using the cluster option in Stata (Kalmijn, 2006). The dyad level is statistically the most powerful unit, because both children can experience life course transitions and these will then count as separate (although nested) events. We use a regression approach to change, which means that well-being at Wave 2 was regressed onto life course transitions during Waves 1 and 2 while controlling for well-being at Wave 1.

One question we had about the data is whether we should include children who live at home. Because marriage transitions can be made when children live at home and when children live alone, and because, according to the notion of altruism, parents should be affected in both cases, we believed that leaving in data from resident children was the best choice. To check this, we also tested whether the effect of marriage differed depending on whether the child lived at home at the first wave, but this interaction was not significant (*p* = .31).

Measurement

We measured well-being with items borrowed from Berwick et al.'s (1991) five-item scale for depressive feelings. This test consists of five questions about how the respondent felt in the past 4 weeks: (a) how often the respondent was tense, (b) how often the respondent was feeling so down that nothing could cheer him or her up, (c) how often the respondent was calm and peaceful, (d) how often the respondent felt miserable and depressed, and (e) how often the respondent felt happy. The reliability of this scale is good (Cronbach's *α*s = .84 and .85 for Waves 1 and 2, respectively). Stability is moderate: The correlation between the depression scales at the two waves was .58. The items were included in a self-administered questionnaire that was filled out after respondents completed the computer-assisted personal interview. To construct the scale, we took the average of the

Table 1. *Transitions of Children Between Waves 1 and 2* (N = 4,336)

Variable	*n*	%
Marital status		
Continuously married	2,412	55.63
Continuously single	1,156	26.66
Single to married	544	12.55
Married to separated	224	5.17
Parenthood status		
Continuously not a parent	1,740	40.13
Continuously a parent	2,150	49.58
Became a parent	446	10.29
Total	4,336	100

Note: Cohabiting couples were included with the married couples.

unstandardized items and standardized this average to facilitate the interpretation of the effects (*M* = 0, *SD* = 1).

We measured children's life course transitions through parental reports on children's marital, cohabitational, and parental status. We initially combined marriage and unmarried cohabitation, but in a separate analysis we differentiated these two transitions. Note that in The Netherlands there is now virtually no disapproval of unmarried cohabitation (Soons & Kalmijn, 2009). By comparing the child's marital and cohabitational status at the two waves, we constructed a transition variable. The two waves were 3 to 4 years apart, but we abstained from analyzing the length of time that passed since the transition was made because we had no data on this. An overview of this variable is given in Table 1. About half of the children were married or cohabiting at both waves, and 27% were single at both waves. About one in five of the children experienced a transition: Thirteen percent experienced a transition from being single to living together, and 5% experienced a divorce. These included transitions from married to divorced and from cohabiting to the category "single and never married." Furthermore, we noted that 10% of the children become a parent between the two waves. The actual numbers of children who experienced transitions was large enough to estimate the effects of transitions on parental well-being.

To estimate the life course effects, we used a different reference category for each transition. For measuring the effect of marrying, persons who were single at both waves comprised the

reference category. For measuring the effect of divorce, persons who were married at both waves comprised the reference category. Hence, we estimated each model two times to obtain the different contrasts. The other effects and the fit of the model were exactly the same each time a different contrast was estimated. Only the intercept varied over the models, and we therefore do not report it here. For the children's parental status variable, $3 - 1 = 2$ dummy variables were included (becoming a parent, being a parent at both waves). The reference category was having no children at both waves.

As control variables, we included the following three parental characteristics (measured at Wave 1): (a) age, (b) years of schooling, (c) marital status (married or unmarried cohabitation, divorced or separated, and widowed). The gender of the parent was included, but we also estimated the models separately for fathers and mothers, and we tested the differences in the effects using a t test. We also controlled for whether the child lived at home at the second wave.

We used several variables to examine interaction effects. First, we included a measure of liberal family norms. We evaluated family norms (at Wave 1) by asking respondents to indicate whether they approved or disapproved of 10 family arrangements, including unmarried cohabitation, gay men or lesbian women living together, the employment of mothers, an egalitarian division of household labor, divorce, and single parenthood. Cronbach's alpha for this scale was .81. Second, we included a measure of relationship quality. Parents were asked to assess the quality of their relationship with the particular child at Wave 1. The answering categories were *very good*, *good*, *okay*, and *poor*. We included this variable as an interval variable with scores ranging from 1 (*poor*) to 4 (*very good*). Our measure of relationship quality resembled that used by American researchers who analyzed the National Survey of Families and Households (Aquilino, 1994a). To strengthen our analyses, we also looked at a negative aspect of quality: the degree of conflict in the parent–child relationship. Conflict was measured on a 3-point scale ($1 = never, 2 = occasionally, 3 = frequently$). Third, we included a possible intermediating variable: the change in quality between the two waves. This was based on

the absolute difference in (perceived) quality at Wave 2 and (perceived) quality at Wave 1. Quality at Wave 1 was included in this model as well. To determine whether (change in) quality mediates the effects of transitions, we used the common approach of comparing the transition effects with and without controlling for quality. The "total" effect (without controlling) minus the "direct" effect (with controlling) is the indirect, or mediated effect (Clogg, Petkova, & Haritou, 1995).

RESULTS

Our first hypotheses were concerned with the overall effects of life course transitions on parents' well-being. In Table 2 we present the regression models in which parents' depressed mood at Wave 2 was regressed onto children's life course transitions, while controlling for parents' depressed mood at Wave 1 and other control variables. Models are presented for fathers and mothers combined and for fathers and mothers separately. Using interaction effects, we tested whether effects differed between fathers and mothers. Note that fathers and mothers were not from the same households; they were separate male and female respondents with their own children.

The dependent variable was coded in such a way that high scores indicate more depressive feelings. We observed a negative and significant effect of marriage. Hence, when children marry, parents' feelings of depression were reduced. Because the dependent variable was standardized, the effect can be interpreted as an effect size (i.e., the standardized mean difference or Cohen's d). The size of the effect was -0.13, which is small (Cohen, 1988). We tested whether entering marriage had a stronger effect than entering a cohabitational union, but these had similar effects, $t(3,812) = 0.39, p = .35$. Next, we noted a significant positive effect of children's divorce. Parents' depressed mood was aggravated when their children experienced a divorce. The effect size was somewhat stronger in this case (-0.16) but still not strong. The child's transition to parenthood also affected parents. Parents became somewhat less depressed when their children become a parent (for the first time). The effect was small but significant. Finally, we observed that parents had fewer depressive feelings when their children lived at home.

Table 2. *Regression Analyses of Parents' Depressed Wave 2 (W2) Mood on Child Transition Variables, Wave 1 (W1) Through W2 (N = 3,812)*

Variables	All	Fathers	Mothers	t(3,812)
Parental				
Depression W1	0.561*	0.529*	0.579*	
Father vs. mother	−0.179*			
Age W1	−0.440*	−0.349	−0.532*	
Age squared W1	0.037*	0.027	0.047*	
Child lives at home W2	−0.078†	−0.015	−0.120*	
Years of schooling	−0.005	0.009	−0.020	
Single vs. married W1	0.059	0.074	0.057	
Divorced vs. married W1	−0.058	−0.069	−0.080	
Widowed vs. married W1	0.251*	0.315*	0.212*	
Liberal family norms W1 (z)	−0.051*	−0.043†	−0.054*	
Quality relationship W1 (z)	−0.033*	−0.034	−0.033†	
Child transitions W1 − W2				
Single to married (vs. continuously single)	−0.130*	−0.061	−0.183*	0.121
Married to separated (vs. continuously married)	0.156*	−0.073	0.340*	−0.413*
Not a parent to parent (vs. continuously not a parent)	−0.084*	−0.143*	−0.029	−0.114
No. parent − child dyads	3,812	1,565	2,247	
R^2	.358	.324	.353	

Note: Transition effects were obtained from separate models in which the remainder of the model is the same. All models contain dummy variables as listed in Table 1 (except the reference category), but these are not presented. Depression and other continuous variables, except age, are standardized.

†$p < .10$. *$p < 05$.

Turning to the results for fathers and mothers separately, we see interesting differences. Perhaps the most striking difference lies in the effect of children's divorce. Mothers' depressed mood was negatively affected by children's divorce ($b = −.31$), but fathers were not affected. The effect on fathers' depressed mood was close to zero and not statistically significant. The effect for mothers was moderately strong. The effect of children's marriage was also stronger for mothers than for fathers, but this difference was not statistically significant. The effect of parenthood was stronger for fathers than for mothers, but again, the gender difference was not significant. In general, our first three hypotheses were confirmed by the analyses.

We now turn to our examination of hypotheses that are unique for the different theories. We examined the normative perspective by considering interaction effects of the transition variables with the family norms to which parents adhere. Main effects of transitions and their interactions with parental norms are presented in Model 1 in Table 3. We found that children's divorce interacted significantly with parental norms. The interaction effect was negative,

which shows that the positive effect of divorce on parents' depressed mood was reduced when parents had more liberal norms. Because the parental norm variable was standardized, the main effect refers to the average parent. The interaction effect was significant for both fathers and mothers.

What are the implied effects for liberal and traditional parents? In Figure 1 we present the effects, using the middle 90% of the range of the variable that was used to measure the norms. For traditional mothers, the effect of children's divorce on depressed mood was between 0.6 and 0.8, which is quite a substantial effect size. For liberal mothers, the effect of divorce was close to zero. For fathers, the range was smaller, and there was even a tendency for depressed mood to be reduced among liberal fathers after the child's divorce. Although these results are in line with our expectations, as formulated in Hypothesis 2, we also expected that the transition to marriage and parenthood would be more beneficial for traditional parents than for liberal parents. We found no significant interactions with the marriage and parenthood transitions, however.

Table 3. *Regression Analyses of Parents' Depressed Wave 2 (W2) Mood on Child Transition Variables, Wave 1 (W1) Through W2 (N = 3,812)*

Variable	Fathers			Mothers		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Parental						
Depression W1	0.530*	0.530*	0.528*	0.578*	0.580*	0.576*
Age W1	−0.364	−0.337	−0.362	−0.522*	−0.529*	−0.544*
Age squared W1	0.028	0.026	0.028	0.046*	0.047*	0.048*
Child lives at home W2	−0.017	−0.017	−0.015	−0.117	−0.119	−0.118
Years of schooling	0.007	0.009	0.009	−0.020	−0.020	−0.021
Single vs. married W1	0.066	0.063	0.065	0.050	0.058	0.056
Divorced vs. married W1	−0.067	−0.066	−0.074	−0.083	−0.081	−0.074
Widowed vs. married W1	0.320*	0.324*	0.306*	0.226*	0.211*	0.211*
Liberal family norms W1 (z)	−0.032	−0.042	−0.041	−0.023	−0.054	−0.051
Quality relationship W1 (z)	−0.034	−0.055	−0.048	−0.031	−0.008	−0.064
Child transitions W1 – W2						
Single to married	−0.058	−0.067	−0.061	−0.169*	−0.174*	−0.182*
Married to separated	−0.122	−0.081	−0.077	0.323*	0.312*	0.307*
Not a parent to parent	−0.126*	−0.142*	−0.142*	−0.015	0.051	−0.028
Interactions: Norms						
Marriage × Liberal Norms W1	−0.015			−0.060		
Separation × Liberal Norms W1	−0.139*			−0.212*		
Parenthood × Liberal Norms W1	0.094			−0.015		
Interactions: Relationship quality						
Marriage × Relation Quality W1		0.034			−0.067	
Separation × Relation Quality W1		−0.037			−0.037	
Parenthood × Relation Quality W1		−0.066			0.051	
Intermediating variables						
Relation quality W2 – W1			−0.042			−0.084*
No. parent – child dyads	1,565	1,565	1,565	2,247	2,247	2,247

*p < .05 (one-tailed).

To test the role of empathy and altruism, we examined interaction effects of children's life course transitions with the quality of the relationship. We had expected that positive (negative) transitions would affect parents less positively (negatively) when the relationship with the child is poor (Hypothesis 3). Interaction effects are listed in Model 2 in Table 3. The results did not support our expectations. In cases where there are negative effects of marriage on depressed mood, the interaction with relationship quality was nonsignificant; similarly, there was no interaction effect of divorce and relationship quality for mothers.

Finally, we examined the notion that children's life course transitions affect parents because such transitions lead to changes in the quality of the relationship (Hypothesis 4). In Model 3 of Table 3, we report the life course

FIGURE 1. INTERACTION OF CHILD'S SEPARATION AND PARENT'S FAMILY NORMS ON CHANGES IN DEPRESSED MOOD.
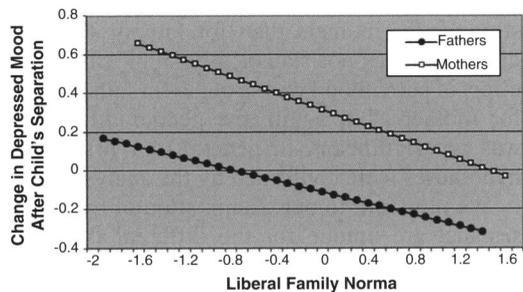
effects after controlling for changes in relationship quality between Waves 1 and 2. We first noticed that, for mothers, there was a negative

effect of changes in relationship quality. In other words, when the quality of the relationship improved, mothers became less depressed. For fathers, there was a negative effect as well, but it was not significant. When we looked at the effects of children's marriage and divorce, however, we saw that they were still significant. Moreover, the magnitude of these effects was similar to those in the models without controls for relationship quality (see Table 2). The effect of children's parenthood on fathers' depressed mood also remained significant and was of the same magnitude as in Table 2. One can conclude from Table 3 that even though the quality of the parent–child relationship did affect parents (at least mothers), changes in quality cannot explain the transition effects.

Because some research has suggested that negative aspects of the parent–child relationship are more important for well-being than positive aspects of the parent–child relationship (Umberson, 1992), we also looked at the degree of conflict at Wave 1 and the degree to which conflict changed. We noted a positive effect of an increase in conflict on depressed mood for mothers ($b = .10$, $p < .05$), but the transition effects did not change when this variable was added to Model 3. This strengthens our decision to reject Hypothesis 4.

DISCUSSION

Much is known about how life course transitions of parents affect children, but less is known about the possible reverse causal effects. We found clear evidence that parents are affected by the demographic life course transitions of their children. Mothers experience a decline in well-being when their children separate, both fathers and mothers increase their well-being when their children marry or begin living together, and fathers experience an increase in well-being when their children become parents. Marriage and cohabitation have similar effects. We note that well-being was measured with a continuous scale that measured depressive feelings and not clinical depression.

We assessed the effects of children's life course transitions with a strong design, using large-scale panel data that made it possible to test whether transitions lead to changes in parental well-being. Earlier cross-sectional research brought positive evidence for the notion of "linked lives" (Greenfield & Marks, 2006),

but Milkie et al.'s (2008) recent longitudinal study revealed little evidence, at least for White Americans. These more recent findings suggest that the hypothesis did not hold up in a stronger design. Our study also used a longitudinal design and yielded more positive evidence. There might still be problems with using panel data, however. For example, parental well-being at Wave 1 might already have been influenced by the prospect of the child's life course transition. Marriage, divorce, and parenthood are typically not spontaneous decisions, and the shadow of the future might have affected parental well-being at Wave 1. This problem is hard to solve, but it is important to note that it would result in an underestimation of the effects we found, not an overestimation.

There are a number of theoretically interesting interpretations of the effects that we found. Of the three approaches that can be distinguished, the normative approach received the most support. According to this perspective, parents suffer from a child's divorce because a divorce is socially disapproved of, which makes parents feel ashamed (Pillemer et al., 2010). Feelings of guilt—not having raised the child in the right way—may also play a role in this perspective. We found positive evidence for this perspective because the detrimental effect of divorce on parents became weaker when parents had more liberal family norms. It is also important to note that although the effect sizes were not very large in general, they were quite substantial for mothers who held traditional views. The evidence is only partial, however, because we did not find a similar interaction between the effects of norms and a child's marriage and parenthood. One way of interpreting this difference is that normative disapproval has a stronger effect on well-being than normative approval. In other words, feelings of shame (when the children separate) may affect parents more than feelings of pride (when the children marry).

A second approach is based on notions of altruism and empathy. This perspective argues that the well-being of children directly enters the "utility" that parents have. In other words, parents suffer because their children suffer, and they are happy because their children are happy. Although this notion has received considerable support in research on intergenerational exchange, our data did not provide support for this notion. We expected that life course effects would be stronger when

the quality of the relationship was higher, but we did not find such interactions. Hence, even in poor relationships, fathers and mothers are happy or sad when their children experience positive or negative events. Although this could still be consistent with strict evolutionary interpretations of altruism, it is not consistent with more sociological and social psychological interpretations of altruism that rest on the principle of empathy.

A third explanation argues that there are direct, selfish reasons why parents would be affected by the life courses that their children make. One implication of this theory is that children's life course transitions affect parents because these transitions change the relationship that parents have with their children. Although we found evidence that improvements in relationship quality benefit mothers, we did not find that such changes can explain the life course effects. The main reason for this is probably that the life course transitions of children may not have unambiguous effects on the relationship. Children's divorce may have both positive and negative effects on parent–child relationships. Children may ask for support from parents (a positive effect), but they may also become more occupied with their own problems, thereby giving less attention to parents (a negative effect). A similar reasoning can be developed for children's transitions to marriage and parenthood.

Fathers and mothers are affected somewhat differently. Particularly striking is the absence of a divorce effect for fathers. A child's divorce resulted in more depressive feelings only among mothers. One interpretation of this can be found in the normative perspective. Because mothers have been more involved in the upbringing of their children, they may regard their child's divorce more as a personal failure than fathers, resulting in more feelings of shame and guilt. The empathic altruistic perspective can also offer an explanation if one assumes that mothers are more empathic than fathers, an assumption for which there is some evidence (Rueckert & Naybar, 2008). As a result, the gender differences, although interesting, tell us little about the mechanisms.

One way to continue this line of research would be to have additional information on children. It would be interesting to have data on children's psychological well-being in both waves of the panel study, which of course would require separate interviews. Using this kind of multi-actor data would be especially relevant for the altruism explanation of the effects of children's life course transitions: Knowing the well-being of the children would make it possible to test whether changes in parental well-being as a consequence of life course transitions occur only if the well-being of the children has changed. A previous longitudinal study on American data demonstrated the reciprocal effect of parent and offspring well-being (Knoester, 2003), but how such effects explain the effects of offspring's life course transitions is not yet known. Although our data set included additional information collected directly from one or two of the primary respondent's children, this information was present for only half of the children. Using this information would therefore reduce the number of cases too much. Moreover, using information on parents' and children's well-being simultaneously would also require a different design because there can be causal effects in both directions, from the well-being of parents to children and vice versa.

In a more general sense, our finding of reversed life course effects points to the importance of linked lives, a concept that refers to the systematic effects that life course transitions can have on the fate of other, closely related individuals (Elder, Johnson, & Crosnoe, 2003; Greenfield & Marks, 2006). Although the social embeddedness of the life course has already been suggested in research on parents and young children (Sigle-Rushton et al., 2005) and in research on partners in the same household (Bernasco, de Graaf, & Ultee, 1998; Blossfeld & Drobnic, 2001), our article strengthens the evidence by expanding the application to relationships between family members outside the household (cf. Aquilino, 1994b).

NOTE

REFERENCES

Altonji, J. G., Hayashi, F., & Kotlikoff, L. J. (1992). Is the extended family altruistically linked? Direct tests using micro data. *American Economic Review, 82,* 1177–1198.

Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and the Family, 62,* 1269–1287.

Aquilino, W. S. (1994a). Impact of family disruption on young adult's relationships with parents. *Journal of Marriage and the Family, 56,* 295–313.

Aquilino, W. S. (1994b). Later life parental divorce and widowhood: Impact on young adults' assessment of parent–child relations. *Journal of Marriage and the Family, 56,* 908–922.

Arrondel, L., & Masson, A. (2006). Altruism, exchange or indirect reciprocity: What do the data on family transfers show? In S.-C. Kolm & J. M. Ythier (Eds.), *Handbook of the economics of giving, altruism and reciprocity: Vol. 2. Applications* (pp. 971–1054). Amsterdam: Elsevier.

Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (pp. 282–316). Boston: McGraw-Hill.

Bernasco, W., de Graaf, P. M., & Ultee, W. C. (1998). Coupled careers: Effects of spouses' resources on occupational attainment in The Netherlands. *European Sociological Review, 14,* 15–31.

Berwick, D. M., Murphy, J. M., Goldman, P. A., Ware, J. E., Barsky, A. J., & Weinstein, M. C. (1991). Performance of the five-item Mental Health Screening Test. *Medical Care, 29,* 169–176.

Birditt, K. S., Fingerman, K. L., & Zarit, S. H. (2010). Adult children's problems and successes: Implications for intergenerational ambivalence. *Journal of Gerontology: Series B: Psychological Sciences and Social Sciences, 65B,* 145–153.

Blossfeld, H.-P., & Drobnic, S. (Eds.). (2001). *Careers of couples in contemporary society.* Oxford, UK: Oxford University Press.

Cherlin, A. J., Chase-Lansdale, P. L., & McRae, C. (1998). Effects of parental divorce on mental health throughout the life course. *American Sociological Review, 63,* 239–249.

Clogg, C. C., Petkova, P., & Haritou, A. (1995). Statistical methods for comparing regression coefficients between models. *American Journal of Sociology, 100,* 1261–1293.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Cox, D., & Rank, M. R. (1992). *Inter-vivos* transfers and intergenerational exchange. *Review of Economics and Statistics, 74,* 305–314.

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125,* 276–302.

Dykstra, P. A. (1997). The effects of divorce on intergenerational exchanges in families. *Netherlands Journal of Social Sciences, 33,* 77–93.

Dykstra, P. A., Kalmijn, M., Knijn, T. C. M., Komter, A. E., Liefbroer, A. C., & Mulder, C. H. (2004). *Codebook of the Netherlands Kinship Panel Study, a multi-actor, multi-method panel study on solidarity in family relationships, Wave 1.* The Hague: Netherlands Interdisciplinary Demographic Institute.

Elder, G. H. J., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of life course theory. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 3–19). New York: Kluwer.

Elster, J. (2006). Altruistic behavior and altruistic motivations. In S.-C. Kolm & J. M. Ythier (Eds.), *Handbook of the economics of giving, altruism and reciprocity: Vol. 1. Foundations* (pp. 183–206). Amsterdam: Elsevier.

Gelissen, J. P. T. M. (2003). Cross-national differences in public consent to divorce: Effects of cultural, structural and compositional factors. In W. Arts, L. C. J. M. Halman, & J. A. P. Hagenaars (Eds.), *The cultural diversity of European unity: Findings, explanations and reflections from the European Values Study* (pp. 339–370). Leiden, The Netherlands: Brill Academic.

Greenfield, E. A., & Marks, N. F. (2006). Linked lives: Adult children's problems and their parents' psychological well-being. *Journal of Marriage and Family, 68,* 442–454.

Hochguertel, S., & Ohlsson, H. (2007). *Compensatory inter vivos gifts.* Amsterdam: Tinbergen Institute.

Kahn, J. R., McGill, B. S., & Bianchi, S. M. (2011). Help to family and friends: Are there gender differences at older ages? *Journal of Marriage and Family, 73,* 77–92.

Kalmijn, M. (2006). Educational inequality and family relationships: Influences on contact and proximity. *European Sociological Review, 22,* 1–16.

Kalmijn, M. (2007). Gender differences in the effects of divorce, widowhood and remarriage on intergenerational support: Does marriage protect fathers? *Social Forces, 85,* 1079–1104.

Kalmijn, M., & Monden, C. W. S. (2006). Are the negative effects of divorce on well-being dependent on marital quality? *Journal of Marriage and Family, 68,* 1197–1213.

Knoester, C. (2003). Transitions in young adulthood and the relationship between parent and offspring well-being. *Social Forces, 81,* 1431–1458.

Kohli, M. (1999). Private and public transfers between generations: Linking the family and the state. *European Societies, 1,* 81–104.

Kolm, S.-C., & Ythier, J. M. (Eds.). (2006). *Handbook of the economics of giving, altruism and reciprocity: Vol. 1. Foundations.* Amsterdam: Elsevier.