

Child care by grandparents: changes between 1992 and 2006

TEUN GEURTS*, THEO VAN TILBURG*,
ANNE-RIGT POORTMAN† and PEARL A. DYKSTRA‡

ABSTRACT

This study considers changes in child care by grandparents between 1992 and 2006 in relation to changes in mothers' need for and grandparents' opportunity to provide child care. Data from the Longitudinal Aging Study Amsterdam are used to compare two cohorts of Dutch grandparents aged 58–68 ($N_{1992} = 181$; $N_{2006} = 350$). Multi-level regression analysis shows that the probability that grandparents care for their adult daughters' children ($N_{1992} = 261$; $N_{2006} = 484$) increased from 0.23 to 0.41. The increase can be ascribed to higher maternal employment rates, growth in single motherhood, reduced travel time and a decline in the number of adult children. The increase would have been higher if the employment rate of grandparents had not risen.

KEY WORDS – child care, grandparents.

Introduction

Over the past half century, the use of child care from outside the nuclear family increased in almost all Western societies. External child care is more often needed because more mothers have paid jobs outside the home (Lewis *et al.* 2008). In earlier cohorts, mothers typically stayed at home to take care of the children and household. Contemporary mothers of young children continue to work at least part-time or return to the labour market after short breaks (Cohen and Bianchi 1999; Vlasblom and Schippers 2006).

Increased longevity and improvements in healthy life expectancy imply an increased availability of grandparents (Bengtson 2001; Uhlenberg 2009). Studies have repeatedly shown that grandparental child-care provision is an important source of help for contemporary parents (*e.g.* Fergusson,

* Department of Sociology, Erasmus University Rotterdam, The Netherlands.

† Department of Sociology/Interuniversity Center for Social Science Theory and Methodology, Utrecht University, The Netherlands.

‡ Department of Sociology, Erasmus University, Rotterdam, The Netherlands.

Maughan and Golding 2008; Fuller-Thomson and Minkler 2001; Hank and Buber 2009; Jappens and Van Bavel 2012; Vandell *et al.* 2003). Time-use data show that grandparents' efforts often make it less difficult for parents to reconcile caring responsibilities with paid employment (Ichino and De Galdeano 2005). In 2004, 58 per cent of grandmothers and 49 per cent of grandfathers across European countries supported their adult children by taking care of a grandchild aged 15 years or younger (Hank and Buber 2009).

Little is known about change over the past few decades in the extent to which grandparents provide child care. It is often assumed that child care by grandparents has increased because more mothers are employed (*e.g.* Fergusson, Maughan and Golding 2008; Hansen, Joshi and Verropoulou 2006; Kemp 2007). No research has actually tested whether such an association exists. Only one descriptive study offers a clue. Gray (2005) observed a lower prevalence of child care among 'other relatives' in 1991 than in 2000 in the United Kingdom. She also observed that employed mothers in 1991 less often received help from 'other relatives' when compared to employed mothers in 2000. Assuming that these 'other relatives' were predominantly grandparents, she concluded that grandparental child-care provision increased because of greater numbers of working mothers.

The current study tests whether a link exists between increased employment of mothers and grandparental child-care provision by directly assessing the care provided by grandparents. In addition, we consider several alternative explanations for changes in child care by grandparents. The data are from two representative cross-sectional surveys from the Netherlands. In 2006, the same questions about grandparental child care and employment of daughters were asked in the Longitudinal Aging Study Amsterdam (LASA) as in the Living Arrangements and Social Networks of Older Adults (LSN) in 1992. The data allow a study of change in grandparental child-care provision between 1992 and 2006 for grandparents aged between 58 and 68 years. By focusing on this age category, we capture grandparents who are generally healthy, and are likely to have daughters who are in need of child-care assistance. Figures on mothers' age at childbirth from Statistics Netherlands (2009a) indicate that grandparents are most likely to be involved in child care between the ages of 53 (first transition to grandparenthood) and 70 (all grandchildren are 12 years or older).

Increase in mothers' employment and need for child care

Mothers with jobs outside the home face the problem of reconciling work and care responsibilities (Van der Lippe, Jager and Kops 2006). In the

popular and academic press, terms such as ‘time crunch’ and ‘time squeeze’ are used to describe the time pressures that employed mothers experience (Gauthier, Smeeding and Furstenberg 2004). Couples may employ several strategies to resolve reconciliation problems. For example, fathers can step in to help with child care, and couples can save time on housekeeping, leisure and sleep (Bianchi 2000). Couples may also manage their working-time patterns in such a way that they maximise the time that at least one parent is at home (Carriero, Ghysels and Van Klaveren 2009). Dutch parents are more often employed part-time compared to parents in other Western countries: 23 per cent of Dutch male workers are employed part-time (*versus* 10% across Europe) and 75 per cent of Dutch female workers are employed part-time (*versus* 41% across Europe; Keuzenkamp and Steenvoorden 2008). After childbirth, mothers may apply for a job with flexible working hours to make it easier to organise child-care tasks (Larsen 2004). Mothers may also reduce the number of hours that they work to increase the time available for child care (Cloïn and Hermans 2006). It is unlikely that these strategies fully resolve reconciliation problems.

Working mothers in need of child care can opt for formal and/or grandparental child-care provision. In the Netherlands, the latter is often preferred. Dutch mothers consider grandparents to be the best child-care providers (Portegijs *et al.* 2006). Grandparental care is less expensive than formal child care and in many cases even free of charge: Three out of four Dutch parents do not pay their parents for their child-care activities (Portegijs *et al.* 2006). Parents who rely on grandparental child care predominantly do so because they trust their own parents better than formal child-minders (Wheelock and Jones 2002). Other reasons include greater convenience and the belief that care by grandparents is more beneficial to the child (Wheelock and Jones 2002). In comparison to parents in other Western countries, the Dutch are more likely to view formal child care as potentially harmful (Treas and Widmer 2000), a view that presumably contributes to the high preference for grandparents’ assistance in child care.

Child-care provision by Dutch grandparents is presumably best understood as care that is complementary to public services. Data from the Survey of Health, Ageing and Retirement from 2004 indicate that about 58 per cent of the Dutch grandparents regularly look after their grandchildren (only preceded by Norway: 60%; Attias-Donfut and Ogg 2006). When looking at daily care, however, only 4 per cent of Dutch grandparents provide for this. In countries such as Spain, Italy and Greece this is much more frequent, between about 40 and 50 per cent. These differences are presumably related to the availability of public policy arrangements such as child-care services and parental leave (Dykstra 2012) and the extent to which mothers are employed full-time or part-time (Herlofson *et al.* 2011). When public

child-care services are extensive and maternal employment rates are high, such as in the Netherlands, grandparents are occasionally called upon for child-care assistance but are not needed for daily child-care provision.

It is reasonable to assume that child-care needs have increased over time because of the increase in mothers' labour-force participation. Since 1960, and in particular during the 1970s and 1980s, the labour-force participation of women increased remarkably (Brewster and Rindfuss 2000). Although not as impressive as during the 1970s and 1980s, the rate of women participating in the labour market continued to rise in the 1990s and after. Figures from the Organisation for Economic Co-operation and Development (OECD 2013) show that between 1992 and 2006, women's gross employment participation gradually increased from 58 to 64 per cent across European Union countries. For the Netherlands, women's labour participation increased from 55 to 70 per cent and for women between 25 and 39 years old from 67 to 82 per cent. Part-time employment increased in particular. The Dutch preference for grandparental care together with the increase in labour-force participation among Dutch women led to the hypothesis that the likelihood of grandparents providing child care has increased between 1992 and 2006.

Other changes affecting grandparental child care

Earlier research has underscored the role of motivations in the provision of grandparental care. Positive recollections of their own grandparents increase the likelihood that grandparents are actively involved in the lives of their grandchildren (King and Elder 1997). Affection between grandparents and the middle generation also encourages grandparental involvement (Mueller and Elder 2003; Oppelaar and Dykstra 2004). Unfortunately, we cannot incorporate motivations in our model, given a lack of data on changes over time. Neither do we incorporate information on policy changes aimed at easing the reconciliation of work and caring responsibilities, such as parental leave and family benefits (Lewis *et al.* 2008). Though reconciliation policies have accompanied the increase in mothers' labour-force participation, their impact on grandparental care provision is conceptually unclear. We decided to focus on changes in mothers' need for and grandparents' opportunity to provide child care, as shaped by: middle generation divorce, travel time between grandparent and parent, number of offspring, grandparental employment and grandparental divorce.

Greater divorce rates among parents are likely to have increased the need for grandparental child care. Between 1996 and 2006 an increasing proportion of divorces in the Netherlands involved parents with under-age

children (from 46 to 57%; Statistics Netherlands 2013). Some divorced parents find a new partner; others remain single. In families of divorce, child care is not easily shared with the former partner (McLanahan and Sandefur 1994), and for that reason, grandparents are often mobilised as child-minders. Hank and Buber (2009) observed across ten European countries that grandparents are more likely to provide child care when the parent is single than when the parent has a partner. Between 1995 and 2008, the number of single-parent families in the Netherlands increased 30 per cent (De Graaf 2008).

A decrease in travel time between grandparents and adult children (Harms 2008) is likely to have increased the provision of child care by grandparents. Increasing numbers of older Dutch women own a car (Statistics Netherlands 2009c) and the percentage of women between 60 and 65 years who have a driver's licence increased from 65 per cent (1992) to 84 per cent (2006; Statistics Netherlands 2009b). Both developments suggest a decrease in travel time.

Over the past decades, fertility levels have been declining in the Netherlands and elsewhere in Europe (Frejka and Sobotka 2008). The decline in family size implies less competition for grandparental time across fewer adult children, and thus a greater likelihood of grandparental child care.

Greater employment and divorce rates among grandparents are likely to have decreased child care by grandparents. Del Boca, Pasqua and Pronzato (2009) suggested that the grandparent's time to care for grandchildren is restricted when grandparents are employed. In the years 1992–2006, gross labour participation rates among men and women aged 55–64 rose from 44 to 59 per cent and 16 to 37 per cent, respectively (OECD 2013). Divorced grandparents are generally less involved with their grandchildren (King 2003; Oppelaar and Dykstra 2004). According to Statistics Netherlands (2009d), the proportion of divorcees among people between the ages of 58 and 68 increased from 6 per cent in 1992 to about 11 per cent in 2006.

Method

Respondents

Two surveys among older adults in the Netherlands conducted 14 years apart provided data for age-equivalent cohorts of grandparents in two distinct periods in time. The first was the LSN research programme in 1992 (Knipscheer *et al.* 1995) and included 4,494 older adults from 54 to 89 years. The respondents were randomly selected from the population registers of

11 municipalities. The response rate was 60 per cent. The second survey was the 2006 wave of the LASA (Huisman *et al.* 2011) which included the identical set of questions about grandparenthood as the 1992 sample. Respondents from 2006 were originally sampled in 2002 (N=1,002; response: 57%) using the same sampling frame as LSN had in 1992. The 2006 follow-up included 861 older adults aged between 58 and 68 years (2% deceased; 4% refused; 5% were interviewed by phone; 3% were lost for other reasons).

At both occasions (1992 and 2006), the respondents were interviewed in their home by use of a personal computer. Because of time restrictions in 1992, the computer randomly selected 964 grandparents who were asked to report on the name, sex, age, co-residential status and contact frequency of all their grandchildren. To allow a historical comparison, we selected grandparents aged between 58 and 68 years in the 1992 survey (N=253). The 2006 survey included 539 grandparents.

We excluded several middle generation members. First, all adult sons were excluded because the focus of the current study is on increase in maternal employment and information about wives (daughters-in-law of the respondents) was not available. In the process of selecting only daughters, grandparents with only sons were lost: the number of eligible grandparents decreased by 31 in the 1992 survey and by 106 in the 2006 survey. Next, we excluded the childless and adult daughters whose children were all older than 12 years. Most Dutch parents believe that children over the age of 12 are independent enough to stay home alone and that child care is no longer needed. The sample of grandparents was thereby reduced by 40 for the 1992 survey and by 77 for the 2006 survey. Further, we excluded adult daughters with missing information (*e.g.* for three daughters the employment status was not known) or who were co-residing with their parents (*i.e.* grandparents). The final sample consisted of 181 grandparents with 261 adult daughters for the 1992 survey and of 350 grandparents with 484 adult daughters for the 2006 survey.

Measures

Grandchildren and adult daughters were identified by name. For each grandchild, grandparental child care was assessed by the question: 'How often did you take care of ... in the past 12 months?' with four possible answers: 1=never, 2=seldom, 3=sometimes and 4=often. Research using the 1992 data suggested that grandparents predominantly take care of sets of grandchildren (Oppelaar and Dykstra 2004). For that reason, we created a variable indicating the child-care status for each daughter as follows: 1=child care is provided often to at least one grandchild, 0=child care is provided

less than often to at least one grandchild. We assume that providing care ‘often’ rather than ‘seldom’ or ‘sometimes’ reflects a structural solution for child care related to maternal employment.

A dummy variable reflected the year of measurement: 0 = 1992; 1 = 2006. For each adult daughter, grandparents were asked: ‘Does . . . have a job, and if so, does she work full-time or part-time?’ Two dummy variables were used for full-time (1 = yes) and part-time (1 = yes) maternal employment, with not employed as category of reference. A number of possible correlates of changes in grandparental child care were included. Correlates at the middle generation level were single motherhood (1 = yes), and travel time which was based on the question: ‘How long does it take you to travel to . . ., by means of the way you usually travel?’ The travel time variable, ranging from 0 to 1,440 minutes, was highly skewed to the right so we transformed it by taking the natural log (range 0–7). To interpret the results, we sometimes transformed the scores back to the original travel time in minutes (y) by usage of the formula $y = e^y - 1$. Correlates at the grandparental level were gainful employment (1 = yes, 0 = no), divorced (1 = yes, 0 = no) and number of offspring. Finally, we control for the following: the grandparent’s gender (59% grandmothers in 1992 and 53% in 2006) because grandmothers are more likely to provide child care than grandfathers, and the daughter’s age because older daughters are less likely to need child care than younger ones (mean₁₉₉₂ = 34.18, standard deviation (SD) = 4.00; mean₂₀₀₆ = 32.77, SD = 3.89; Vandell *et al.* 2003). Finally, because the need for child care is presumably greater when children are not attending school (Portegijs *et al.* 2006) and public school attendance is legally not mandatory before the age of five, we control for whether the daughter has at least one child of pre-school age (*i.e.* four years or younger; 53% of the daughters in 1992 and 60% in 2006).

Procedure

We pooled information from the 1992 and 2006 surveys. The pooled dataset contains a record for each eligible daughter of a grandparent. First, we assessed whether maternal employment and other possible correlates of grandparental care differed between the years of data collection by using descriptive statistics and statistical tests. Next, we conducted a multi-level logit regression analysis (Rasbash *et al.* 2004) to test empirically whether a link exists between changes in grandparental child-care provision and its possible correlates. We distinguished two hierarchical levels: adult daughters at the lower and grandparents at the higher level. The dependent variable grandparental child-care provision was at the lower level. Markov Chain Monte Carlo was used for estimation. To ease interpretation of the logit

regression, we transformed the estimates of the regression into probability (P) with the formula $P=1/(1+e^{-Z})$ when describing the results. Z is the regressions' estimate.

To assess change between 1992 and 2006 in grandparental child-care provision, we calculated a first regression model (Model 0) that included the year of data collection. Using the estimates, we calculated the probability of child care for both years as well as the absolute difference between these probabilities. The latter indicates change in child care by grandparents between 1992 and 2006. This model additionally provided a reference deviance statistic (Deviance Information Criterion; DIC) that was used to evaluate model improvement when other correlates were added. DIC values of two models are directly comparable and any decrease in DIC suggests a better fitting model.

The next and final model (Model 1) included all correlates. Bivariate correlations as well as tolerance testing indicated that all independent variables qualified for the regression analysis assumption of absence of multicollinearity. Estimates from this model were used for three purposes. First, we evaluated which factors significantly increased or decreased the probability of grandparental child-care provision. Second, we checked whether change in child care by grandparents could be ascribed to change between 1992 and 2006 in the correlates by comparing the estimate for the year of data collection with the one estimated in Model 0. Any reduction in effect size suggests that at least one of the added factors explains change in child care by grandparents. Finally, we used the model's estimates in combination with the descriptive statistics from our first step to disentangle the overall change into change associated with a specific correlate. For example, to compute change in the incidence of grandparental child care attributable to part-time employment, we estimated the incidence of grandparental child care on the basis of Model 1 for the year 1992 using the actual proportion of part-time employment and using the 2006 proportion of part-time employment. This estimation included the weighted means of the other correlates. The difference between the two estimations indicates the change in grandparental child-care provision that is attributable to change in part-time employment. We followed the same procedure for the other correlates.

Results

Descriptive statistics (Table 1) show differences between 1992 and 2006 in adult daughters' employment and other factors that may have increased or decreased grandparental child-care provision. Part-time employment

TABLE 1. *Differences between 1992 and 2006 in maternal employment and other possible correlates of grandparental child-care provision*

	1992	2006
Middle generation level ($N_{1992} = 261$; $N_{2006} = 484$):		
Employed part-time (%)	35	58***
Employed full-time (%)	11	16
Single parent (%)	3	10***
Travel time (natural log; 0–7)	3.16	2.92**
Grandparental level ($N_{1992} = 181$; $N_{2006} = 350$):		
Divorced (%)	7	7
Mean number of children (1–12)	4.34	3.33***
Employed (%)	12	24***

Note: t-Test and χ^2 tests were used as tests for difference between 1992 and 2006.
Significance levels: ** $p < 0.01$, *** $p < 0.001$.

among daughters was lower in 1992 (35%) than in 2006 (58%). This difference was statistically significant and signals an important explanation for change in grandparental child-care provision. The proportion of adult daughters employed full-time was 11 per cent in 1992 and 16 per cent in 2006. Obviously, few Dutch mothers with young children choose to be engaged in full-time employment. The difference in proportion was small and not significant, indicating a rather limited increase over 14 years. Fewer adult daughters were single mothers in 1992 (3%) compared to 2006 (10%). In 1992, grandparents were more restricted by travel time than in 2006, as can be seen from the significant difference in average travel time (1992: 23 minutes; 2006: 18 minutes). Divorce among grandparents remained stable at 7 per cent. Grandparents in 1992 had on average about one child more than in 2006. The proportion of grandparents in gainful employment nearly doubled between 1992 and 2006 from 12 to 24 per cent.

The estimates from the multi-level logit regression analysis are shown in Table 2. The intercept and indicator for year of measurement in Model 0 indicate that the estimated probability for child care by grandparents increased from 0.23 in 1992 to 0.41 in 2006 (an increase of 18 percentage points).

Model 1, which is a significant improvement of Model 0, shows that several characteristics of adult daughters and grandparents account for differences in child care by grandparents. Grandparental child care is more likely for daughters who are younger, have pre-school aged children, are employed either part-time or full-time, or are a single parent. Grandparental child care is less likely the greater the time required to travel to adult daughters, and

TABLE 2. Multi-level logit regression models predicting likelihood of grandparental child-care provision for daughters (unstandardised coefficients)

	Model 0		Model 1	
	B	SE	B	SE
Year 2006 (versus 1992)	0.84***	0.22	0.16	0.23
Middle generation level (N ₁₉₉₂ = 261; N ₂₀₀₆ = 484):				
Intercept	-1.19	0.19	3.40	1.23
Age (21-45)			-0.07*	0.03
Parent of young child			0.93***	0.25
Employed part-time			0.99***	0.24
Employed full-time			0.81**	0.31
Single parent			0.92*	0.37
Travel time (0-7)			-0.85***	0.14
Grandparental level (N ₁₉₉₂ = 181; N ₂₀₀₆ = 350):				
Grandmother			0.72**	0.22
Divorced			-0.13	0.44
Number of children (1-12)			-0.25***	0.07
Employed			-0.44*	0.22
Random part:				
Variance grandparental level	0.88	0.54	0.46	0.77
DIC	849.8		756.0	

Notes: SE: standard error. DIC: Deviance Information Criterion. Wald tests were used for statistical significance.

Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

the larger the number of adult siblings who compete for grandparental child care. Grandmothers were more likely to provide child care than grandfathers. No differences were observed for the grandparent's divorce status. Grandparents with paid jobs were less likely to be involved in child care.

The coefficient for year of measurement lost statistical significance in Model 1, implying that the increase in grandparental child-care provision is largely attributable to the correlates that changed between 1992 and 2006. To evaluate each correlate's contribution, the total increase of 18 percentage points in Model 0 was decomposed into constituent parts using estimates from Model 1. We calculated that the increase in part-time employment among daughters accounts for 5 of the total increase of 18 percentage points. Only 1 percentage point of the increase is due to an increase in full-time employment among daughters. The increase in single-parent households also accounts for 1 percentage point of the increase in child-care provision by grandparents. The decrease in travel time between 1992 and 2006 accounts for 4 percentage points of the observed difference

in likelihood of child-care provision by grandparents. An additional analysis (results not shown) indicates that in 1992 about 50 per cent of grandparents lived within a 20-minute travel time from at least one daughter, whereas this figure was about 61 per cent in 2006. Divorce among grandparents did not increase in our sample between 1992 and 2006 and is therefore not related to change in child care by grandparents. Decrease in the number of children in the middle generation accounts for 5 percentage points of the difference between 1992 and 2006 in probability of grandparental child-care provision. The calculations further indicate that the total increase of 18 percentage points would have been 19 percentage points if the employment rate of grandparents had not risen.

Discussion

Our results show that Dutch grandparents aged 58–68 were more likely to care for their adult daughters' children in 2006 than in 1992. The increase in grandparental care is linked to increasing needs on the part of adult daughters as indicated by higher employment rates and a higher rate of single motherhood. It also appears to reflect greater opportunities to provide care as indicated by decreased travel time and less competition among adult children because recent grandparents have fewer of them.

In 2006 a higher proportion of grandparents was gainfully employed than in 1992, a trend that reflects increasing labour-force participation rates among older workers in the Netherlands over the past decades (Henkens and Schippers 2008). Our results suggest that the increase in grandparental care would have been greater if the grandparental employment rate had not increased.

The increase in grandparental child-care provision is remarkable given developments in Dutch society which *a priori* predict a decrease in such care. First, waiting lists for formal child care have become shorter (Netherlands Bureau for Economic Policy Analysis (NBEP) 2008). The ratio of the number of children on the waiting list relative to the number of available slots decreased from 1.29 in 1990 (40,000 children on the waiting list and 31,000 available slots) to 0.49 in 1994 and to 0.39 in 1996. When evaluated solely on availability of formal child care, the likelihood of grandparental child-care provision should have decreased because of increased opportunities for parents to organise formal child care. Second, parents' attitudes towards placing children in formal child care have become less negative over the past decades (NBEP 2008). Given the greater acceptance/acceptability

of formal child-care arrangements, child care by grandparents should have decreased.

It could be argued that a new policy encouraging child care by grandparents (and other members of the informal network) is a more plausible explanation for the observed increase in child-care provision by grandparents. Under this policy, grandparents receive up to €6 per hour from the government for providing child care. Although the new law came into effect in 2005, data from the NBEPA (2008) indicate that grandparents did not start receiving the subsidy until 2007, which is after the completion of the LASA data collection. Therefore, this new law cannot provide an alternative explanation for the increase in grandparental child-care provision. Of course, the possibility exists that the 2005 policy has led to an even greater prominence of grandparents in family life in recent years.

Though we established associations between the increased likelihood of grandparental child care, on the one hand, and increased needs among adult daughters for such care and increased opportunities among grandparents to provide care, on the other hand, the direction of causality is not clear. We cannot rule out the possibility, for example, that the availability of grandparental child care served as an incentive for adult daughters to return to the labour force or to continue working after childbirth. Tobío (2007) argues that grandmothers step in because they want their adult daughters to have career opportunities that they themselves did not have. The decrease in travel time might be the result of improved means of transportation. Alternatively, it might reflect greater geographic proximity. Unfortunately LASA has no information on the residential locations of grandparents and adult daughters. The Netherlands Kinship Panel Study (NKPS) does, however. Using this dataset, Van Diepen and Mulder (2009) showed that the presence of grandchildren increased the likelihood that older adults relocated in the direction of their adult children. The desire to spend time with grandchildren might have prompted grandparents to move closer to them.

Compared to parents from other countries, Dutch parents more often employ the strategy of maximising the time that at least one parent is at home for child care. This becomes apparent in the observation that Dutch parents are more often employed part-time when compared to parents in other Western countries. The percentage of men who are employed part-time is 23 per cent of Dutch male workers (*versus* 10% across Europe). The percentage of women employed part-time is 75 per cent of Dutch female workers (*versus* 41% across Europe; Keuzenkamp and Steenvoorden 2008). Although the current study did not examine reconciliation strategies, the results of the current study might indicate that Dutch parents cannot solve

reconciliation problems by maximising time that a parent is at home despite their efforts to deal with it by these means.

Even after controlling for indicators reflecting changes in need and opportunity for child care, grandparents were still more likely, to a small extent, to provide child care in 2006 than in 1992. This observation may be a token of shift in motivational or relational factors that we could not take into account. For instance, grandparents from today might evaluate the meaning of grandparenthood more in idiosyncratic terms than in formal role expectations than grandparents from earlier generations (Hayslip, Henderson and Shore 2003). Likewise, grandparental agency among the current generation might be greater than among previous generations of grandparents (Timonen and Arber 2013). These changes might imply that grandparents want and perhaps even try to be more involved with their grandchildren than their predecessors. If so, increased employment of mothers may provide a good opportunity to spend time with the grandchildren in the absence of the parents. Furthermore, it may be a sign of increased solidarity between the generations over the past few decades (Bengtson 2001). Future research should focus more directly on grandparents' motivations to provide care in conjunction with their adult children's preferences and the availability of formal child care.

The emergence of a new life phase, in which older adults are in good health and freed from taking care of their own children and work responsibilities (Laslett 1991), allowed for increased productivity in terms of child-care provision. The current study suggested that this increased potential is at least partly tapped. Through their child-care activities, grandparents contribute to their family, the society by increasing employment opportunities for women, and the welfare state by producing support functions that are absent or would otherwise be produced by the welfare state. This productivity should be accounted for when evaluating the consequences of the greying of the population even though it is not instantly visible in monetary terms.

With their child-care activities, many older adults play a significant role in the reconciliation of work and family and make it easier for mothers with young children to participate in the labour market. It is therefore important to recognise that increased employment among grandparents narrows opportunities for grandparents to care for grandchildren. Policy makers who are concerned with active ageing often focus on raising the employment rates among older people. Raising employment among older people might conflict with child-care provision by grandparents (Meyer 2013) and policy makers should consider incorporating child-care activities of older adults in a broader definition of active ageing.

Acknowledgements

This study is based on data collected in the context of the Living Arrangements and Social Networks of Older Adults and Longitudinal Aging Study Amsterdam research programmes. These programmes are conducted at VU University in Amsterdam, and supported predominantly by the Ministry of Health, Welfare and Sports.

References

- Attias-Donfut, C. and Ogg, J. 2006. Grandmothers, employment, and looking after grandchildren. Paper presented at the International Federation on Ageing 8th Global Conference, May 31–June 3, Copenhagen.
- Bengtson, V. L. 2001. Beyond the nuclear family: the increasing importance of multigenerational bonds. *Journal of Marriage and Family*, **63**, 1, 1–16.
- Bianchi, S. M. 2000. Maternal employment and time with children: dramatic change or surprising continuity? *Demography*, **37**, 4, 401–14.
- Brewster, K. L. and Rindfuss, R. R. 2000. Fertility and women's employment in industrialized nations. *Annual Review of Sociology*, **26**, 271–96.
- Carriero, R., Ghysels, J. and Van Klaveren, C. 2009. Do parents coordinate their work schedules? A comparison of Dutch, Flemish, and Italian dual-earner households. *European Sociological Review*, **25**, 5, 603–17.
- Cloin, M. and Hermans, B. 2006. Onbetaalde arbeid en de combinatie van arbeid en zorg [Unpaid labor and the combination of labor and care]. In Portegijs, W. and Hermans, B. (eds), *Emancipatiemonitor 2006: Veranderingen in de Leefsituatie en Levensloop* [Emancipation Monitor 2006: Changes in Living Arrangements and Life Course]. Netherlands Institute for Social Research & Statistics Netherlands, The Hague, 100–40.
- Cohen, P. N. and Bianchi, S. M. 1999. Marriage, children, and women's employment: what do we know? *Monthly Labor Review*, **122**, 12, 22–31.
- De Graaf, A. 2008. *Naar een half miljoen alleenstaande ouders in Nederland* [Towards One and a Half Million Single Parents in The Netherlands]. Available online at <http://www.cbs.nl/> [Accessed 10 October 2009].
- Del Boca, D., Pasqua, S. and Pronzato, C. 2009. Motherhood and market work decisions in institutional context: a European perspective. *Oxford Economic Papers-New Series*, **61**, suppl 1, i147–i171.
- Dykstra, P. A. 2012. Families in alle staten? [Families across time and societies]. *Mens & Maatschappij*, **87**, 2, 174–96.
- Fergusson, E., Maughan, B. and Golding, J. 2008. Which children receive grandparental care and what effect does it have? *Journal of Child Psychology and Psychiatry*, **49**, 2, 161–9.
- Frejka, T. and Sobotka, T. 2008. Fertility in Europe: diverse, delayed and below replacement. *Demographic Research*, **19**, special collection 7, 15–46.
- Fuller-Thomson, E. and Minkler, M. 2001. American grandparents providing extensive child care to their grandchildren. *The Gerontologist*, **41**, 2, 201–9.
- Gauthier, A. H., Smeeding, T. M. and Furstenberg, F. F. 2004. Are parents investing less time in children? Trends in selected industrialized countries. *Population and Development Review*, **30**, 4, 647–71.
- Gray, A. 2005. The changing availability of grandparents as carers and its implications for childcare policy in the UK. *Journal of Social Policy*, **34**, 4, 557–77.
- Hank, K. and Buber, I. 2009. Grandparents caring for their grandchildren: findings from the 2004 Survey of Health, Ageing, and Retirement in Europe. *Journal of Family Issues*, **30**, 1, 53–73.

- Hansen, K., Joshi, H. and Verropoulou, G. 2006. Childcare and mothers' employment: approaching the millennium. *National Institute Economic Review*, **195**, 1, 84–102.
- Harms, L. 2008. *Overwegend onderweg: De leefsituatie en de mobiliteit van Nederlanders [Predominantly on the Way: Living Arrangement and Mobility of Dutch People]*. Netherlands Institute for Social Research, The Hague.
- Hayslip, B., Henderson, C. E. and Shore, R. J. 2003. The structure of grandparental role meaning. *Journal of Adult Development*, **10**, 1, 1–11.
- Henkens, K. and Schippers, J. J. 2008. Labour market policies regarding older workers in the Netherlands. In Taylor, P. (ed.), *Ageing Labour Forces: Promises and Prospects*. Edward Elgar, Cheltenham, UK, 141–57.
- Herlofson, K., Hagestad, G. O., Slagsvold, B. and Sørensen, A. 2011. *Intergenerational Family Responsibility and Solidarity in Europe. Multilinks Deliverable, Workpackage 4*. Retrieved November 20, 2011 from: <http://www.multilinks-project.eu/info/papers>.
- Huisman, M., Poppelaars, J., Van der Horst, M., Beekman, A. T. F., Brug, J., Van Tilburg, T. G. and Deeg, D. J. H. 2011. Cohort profile: the Longitudinal Aging Study Amsterdam (LASA). *International Journal of Epidemiology*, **40**, 4, 868–76.
- Ichino, A. and De Galdeano, A. S. 2005. Reconciling motherhood and work: evidence from time-use data in three countries. In Hamermesh, D. S. and Pfann, G. A. (eds), *The Economics of Time Use: Contributions to Economic Analysis*. Elsevier, Amsterdam, 263–88.
- Jappens, M. and Van Bavel, J. 2012. Regional family norms and childcare by grandparents in Europe. *Demographic Research*, **27**, 4, 85–120.
- Kemp, C. L. 2007. Grandparent–grandchild ties: reflections on continuity and change across three generations. *Journal of Family Issues*, **28**, 7, 855–81.
- Keuzenkamp, S. and Steenvoorden, E. 2008. Arbeidsdeelname en arbeidsduur internationaal vergeleken [Labor force participation and work-hours internationally compared]. In Portegijs, W. and Keuzenkamp, S. (eds), *Nederland Deeltijdland: Vrouwen en Deeltijdwerk [The Netherlands, a Part time Country Women and Part time Jobs]*. Netherlands Institute for Social Research, The Hague, 46–64.
- King, V. 2003. The legacy of a grandparent's divorce: consequences for ties between grandparents and grandchildren. *Journal of Marriage and Family*, **65**, 1, 170–83.
- King, V. and Elder, G. H. 1997. The legacy of grandparenting: childhood experiences with grandparents and current involvement with grandchildren. *Journal of Marriage and the Family*, **59**, 4, 848–59.
- Knipscheer, C. P. M., de Jong Gierveld, J., van Tilburg, T. G. and Dykstra, P. A. 1995. *Living Arrangements and Social Networks of Older Adults*. VU University Press, Amsterdam.
- Larsen, T. P. 2004. Work and care strategies of European families: similarities or national differences? *Social Policy & Administration*, **38**, 6, 654–77.
- Laslett, P. 1991. *A Fresh Map of Life: The Emergence of the Third Age*. Harvard University Press, Cambridge, Massachusetts.
- Lewis, J., Knijn, T., Martin, C. and Ostner, I. 2008. Patterns of development in work/family reconciliation policies for parents in France, Germany, the Netherlands, and the UK in the 2000s. *Social Politics*, **15**, 3, 261–86.
- McLanahan, S. S. and Sandefur, G. 1994. *Growing Up with a Single Parent: What Hurts, What Helps*. Harvard University Press, Cambridge, Massachusetts.
- Meyer, M. H. 2013. Grandmothers juggling work and grandchildren in the United States. In Timonen, V. and Arber, S. (eds), *Contemporary Grandparenting: Changing Family Relationships in Global Contexts*. Policy Press, Bristol, UK, 70–91.

- Mueller, M. M. and Elder, G. H. 2003. Family contingencies across the generations: grandparent–grandchild relationships in holistic perspective. *Journal of Marriage and Family*, **65**, 2, 404–17.
- Netherlands Bureau for Economic Policy Analysis (NBEP) 2008. *Een analyse van de groei van de formele kinderopvang in het recente verleden en in de nabije toekomst [An Analysis of the Growth of Formal Childcare in the Recent Past and in the Near Future]*. NBEP, The Hague.
- Oppelaar, J. and Dykstra, P. A. 2004. Contacts between grandparents and grandchildren. *Netherlands' Journal of Social Sciences*, **40**, 2, 91–113.
- Organisation for Economic Co-operation and Development (OECD) 2013. *Labour Force Statistics by Sex and Age*. Retrieved February 8, 2013 from: <http://stats.oecd.org/index.aspx?r=815282>.
- Portegijs, W., Cloin, M., Ooms, I. and Eggink, E. 2006. *Hoe het werkt met kinderen: Moeders over kinderopvang en werk [How it Works with Children: Mothers About Daycare and Work]*. Netherlands Institute for Social Research, The Hague.
- Rasbash, J., Steel, F., Browne, W. and Prosser, B. 2004. *A User's Guide to MLwiN*. Centre for Multilevel Modelling, University of Bristol, Bristol, UK.
- Statistics Netherlands 2009a. *Statline database: Geboorte, kerncijfers [Statline Database: Birth, Key Figures]*. Available online at <http://statline.cbs.nl/statweb/> [Accessed 11 May 2009].
- Statistics Netherlands 2009b. *Statline database: Mobiliteit per regio naar geslacht, vervoerwijzen en persoonskenmerken [Statline Database: Mobility per Region by Gender, Means of Transport and Persons' Characteristics]*. Available online at <http://statline.cbs.nl/statweb/> [Accessed 11 May 2009].
- Statistics Netherlands 2009c. *Statline database: Voertuigbezit naar geslacht [Statline Database: Vehicle Ownership by Gender]*. Available online at <http://statline.cbs.nl/statweb/> [Accessed 11 May 2009].
- Statistics Netherlands 2009d. *Statline database: Bevolking: geslacht, leeftijd en burgerlijke staat [Statline Database: Population, Gender, Age, and Marital Status]*. Available online at <http://statline.cbs.nl/statweb/> [Accessed 11 May 2009].
- Statistics Netherlands 2013. *Statline database: Echtscheiding; leeftijdsverschil, kinderen, geboorteland, huwelijksduur [Statline Database: Divorce, Age Differences, Children, Place of Birth, Marital Duration]*. Available online at <http://statline.cbs.nl/statweb/> [Accessed 11 May 2009].
- Timonen, V. and Arber, S. 2013. A new look at grandparenting. In Timonen, V. and Arber, S. (eds), *Contemporary Grandparenting: Changing Family Relationships in Global Contexts*. Policy Press, Bristol, UK, 1–26.
- Tobío, C. 2007. Change and reciprocity in intergenerational relationships: the discourse of Spanish working mothers. In Véron, J., Pennec, S. and Légaré, J. (eds), *Ages, Generations and the Social Contract: The Demographic Challenges Facing the Welfare State*. Springer, Dordrecht, The Netherlands, 191–207.
- Treas, J. and Widmer, E. D. 2000. Married women's employment over the life course: attitudes in cross-national perspective. *Social Forces*, **78**, 4, 1409–36.
- Uhlenberg, P. 2009. Children in an aging society. *Journals of Gerontology: Social Sciences*, **64B**, 4, 489–96.
- Van der Lippe, T., Jager, A. and Kops, Y. 2006. Combination pressure: the paid work–family balance of men and women in European countries. *Acta Sociologica*, **49**, 3, 303–19.
- Van Diepen, A. M. L. and Mulder, C. H. 2009. Distance to family members and relocations of older adults. *Journal of Housing and the Built Environment*, **24**, 1, 31–46.

- Vandell, D. L., McCartney, K., Owen, M. T., Booth, C. and Clarke-Stewart, A. 2003. Variations in child care by grandparents during the first three years. *Journal of Marriage and Family*, **65**, 2, 375–81.
- Vlasblom, J. D. and Schippers, J. 2006. Changing dynamics in female employment around childbirth: evidence from Germany, the Netherlands and the UK. *Work Employment and Society*, **20**, 2, 329–47.
- Wheelock, J. and Jones, K. 2002. 'Grandparents are the next best thing': informal childcare for working parents in urban Britain. *Journal of Social Policy*, **31**, 3, 441–63.

Accepted 25 February 2014; first published online 23 April 2014

Address for correspondence:

Teun Geurts, Ministry of Security and Justice,
Research and Documentation Centre, P.O. Box 20301,
2500 EH, The Hague, The Netherlands.

E-mail: t.geurts@minvenj.nl