The role of intergenerational transfers in gendered labour patterns

THE ROLE OF INTERGENERATIONAL TRANSFERS IN GENDERED LABOUR PATTERNS

Anne Elisabeth van Putten

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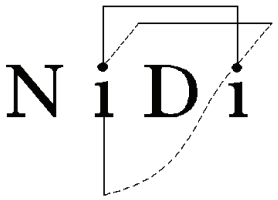

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Voorwoord

Terugkijkend, voel ik mij erg bevoorrecht de kans te hebben gekregen aan dit proefschrift te mogen werken. Bij aanvang was ik vooral gefascineerd door de vraag hoe het komt dat gender-verschillen op het terrein van arbeid en zorg zo hardnekkig zijn. Hoewel die fascinatie is gebleven, ben ik gaandeweg ook geboeid geraakt door familierelaties, het onderzoeksterrein waarmee dit proefschrift nauw verbonden is vanwege de focus op intergenerationele verklaringen van gender-verschillen. Met veel plezier heb ik een ontdekkings-tocht gemaakt door de rijke, soms ver uiteen liggende, werelden van internationaal onderzoek naar familierelaties, arbeid, zorg en gender.

Deze reis was niet mogelijk geweest zonder mijn twee begeleidende hoogleraren Pearl Dykstra en Joop Schippers, van wie ik veel geleerd heb. Pearl, bedankt voor je grondige feedback op al mijn stukken. Met jouw bijzonder scherpe oog voor inhoud, structuur en vorm heb je mij meer gevoel voor hoofd en bijzaken bijgebracht. Daar verwacht ik ook na dit proefschrift nog veel plezier van te hebben! Ik heb het bijzonder gewaardeerd dat jouw deur altijd open stond als dagelijks aanspreekpunt op het Nederlands Interdisciplinair Demografisch Instituut (NIDI), net als je spontane warme reacties op het persoonlijke vlak. Je bent voor mij een belangrijk rolmodel van vrouwelijke ambitie en succes in een sector waar nog altijd meer dan 90 procent van de leidinggevenden mannen zijn. Joop, ook jou wil ik bedanken voor je intensieve betrokkenheid bij mijn promotieonderzoek. Als mannelijke onderzoeker op het enigszins door vrouwen gedomineerde terrein van emancipatievraagstukken vervul ook jij een antistereotype rol. Voor mij ben je echter bovenal een voorbeeld van een wetenschapper die onderzoek kan vertalen voor maatschappelijke organisaties, en zo de beleidspraktijk weet te beïnvloeden. Ik heb je economische inbreng erg gewaardeerd, evenals je bereidheid naar Den Haag te komen voor de gezamenlijke besprekingen.

Ik voel me ook bevoorrecht omdat ik vier jaar als gedetacheerde heb mogen vertoeven in de warme collegiale sfeer op het NIDI, in het statige hart van Den Haag. Ik ben het NIDI veel dank verschuldigd voor het opnemen van dit proefschrift in de NIDI-rapporten reeks. Jacqueline van der Helm en Tonny Nieuwstraten: bijzonder veel dank voor het *editen* van deze publicatie! Jolande Siebenga: dank voor het verkrijgen van publicaties vanuit bibliotheken in heel Nederland. Deelnemers aan het NIDI Feedback Forum: bedankt voor jullie

constructieve commentaar op mijn stukken! Ook erg betekenisvol was de dagelijkse betrokkenheid van NIDI-collega's bij zowel mijn onderzoek als privézaken. Helaas kan ik hier niet iedereen persoonlijk noemen. Wel wil ik mijn kamergenoten Mathieu Starink, Renske Keizer, Niels Schenk, Sylvia Commandeur en Ruben van Gaalen bedanken voor de betrokken sfeer op de kamer. Mathieu, met jouw biologische kijk op maatschappelijke processen tilde je menige discussie naar een interdisciplinair niveau, en daarnaast logenstrafte je de statistieken over de (vaak beperkte) bijdragen van zoons aan de intensieve zorg en aandacht voor bejaarde ouders. Niels, dank voor menig goed advies op methodologisch en STATA-technisch vlak! Renske, ik bewonder je enorme concentratievermogen en geordendheid, en de manier waarop je schijnbaar moeiteloos jouw onderzoek en het moederschap voor Joris weet te combineren. Ik vind het heel fijn dat je mijn paranimf wilt zijn! Judith Soons was vanuit de aanpalende kamer ook onderdeel van de goede werksfeer. Judith, bedankt voor je gezelschap rond ons eerste internationale congres op Kreta, en voor het teamwerk tijdens onze organisatie van de Nederlandse Demografiedag 2007, samen met Annika Smits. Ook de 'junior lunch wandelgroep' bedankt voor jullie dagelijkse gezelschap. Amriet Niranjan, bedankt voor je gezelschap in de keuken, alle lekkere hapjes, en je altijd opgewekte laveren tussen de stapels op mijn bureau tijdens de schoonmaak.

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Abstract

This PhD study is framed against the backdrop of a persistent gendered labour pattern in the Netherlands. Given that the majority of Dutch women work less than three days per week whereas most men work full-time, the gender gap in work-hours in the Netherlands is larger than anywhere else in the developed world. Its flipside is that men carry out far less housework and kin-care than women. This gendered pattern in paid and unpaid labour leads to substantial gender inequalities in terms of income, and institutional, political, and corporate representation. Given women's increased access to higher education, newly drawn legal barriers against sex-discrimination, and the decreased birth rate in the past decades, the adage of 'education, occupation, and family-formation' is insufficient to explain the persistence of gendered labour patterns. This is why the present study explores intergenerational transfers as a complementary explanation for gender differences in paid and unpaid labour to the conventionally studied individual, couple, and household characteristics. We address three kinds of intergenerational transfers: behavioural role modelling, resource transfers, and upward and downward transfers of instrumental support. Based on data of the nationally representative Netherlands Kinship Panel Study, the empirical findings of this study suggest that several intergenerational transfers indeed contribute to explain men's and women's labour patterns. Firstly, the findings suggest that men and women partly model their contributions to housework in adulthood upon their same-sex parent's contributions to housework in childhood. The more fathers contributed to housework, the more sons contribute to housework today, and we find the same pattern among daughters and mothers. Secondly, the findings suggest that women who were raised by working mothers work more hours compared to women who were raised by homemaking mothers. We attribute this finding to the role model and the various resources that working mothers transfer. Thirdly, we find that mothers of young children participate more often on the labour market and work more hours when they receive help with routine housework from grandparents. Yet other intergenerational transfers of instrumental support appear to be unrelated to women's and men's labour patterns. We find no indication that practical help with childcare received from grandparents stimulates the labour force participation or increases the work-hours of parents of young children. Additionally, our results suggest that members of dual worker couples in midlife do not scale back their work-hours when they provide practical help to elderly parents, nor that they are less likely to provide such help

the more hours they work. This study closes off with a discussion of its research contributions, policy implications, and suggestions for future research.

1. Introduction

1.1. Gendered labour patterns: Persistence of inequalities

Men's and women's patterns of paid and unpaid labour have proven persistently gendered in the Netherlands, in spite of the stark increase in Dutch women's labour force participation since the 1970s (Hartog and Theeuwes, 1985; Groot and Pott-Buter, 1993; Henkens, Grift and Siegers, 2002; Cörvers and Golsteyn, 2003; Eurostat, 2008a). Men's and women's labour patterns in the Netherlands are gendered in the sense that, in line with gender stereotypes, women continue to carry out most unpaid labour, such as routine housework and kin-care (Cloïn and Hermans, 2006), and men continue to fulfil the role of breadwinner within families and households (Bos and Merens, 2006; Cuijpers, Hermans and Portegijs, 2006). Time-use data in the Netherlands have shown that although the gender gap in time spent on housework and childcare has decreased over time, women today continue to spend twice as much time (25.5 hours per week) on average on unpaid labour than men do (12.1 hours per week) (Breedveld and Van den Broek, 2006).

The gendered labour pattern in the Netherlands is not unique. Across developed countries one sees a pattern where women invest more time in unpaid labour and men more in paid work. In most developed countries women's contributions to housework and kin-care form a barrier to their participation in the labour market (Moen, 1991; Shelton and John, 1996; Sanchez and Thomson, 1997; Bianchi, Milkie, Sayer and Robinson, 2000; Coltrane, 2000; Blossfeld and Drobnic, 2001b; Adema, 2002; Powers, 2003; Gupta, 2006b; Maume, 2006). Women are less often employed than men, tend to work fewer hours, and more often engage in flexible contracts that provide limited security and secondary benefits (Rosenfeld and Birkelund, 1995; Fagan and Rubery, 1996; Adema, 2002; Cuijpers *et al.*, 2006; Dijkgraaf and Portegijs, 2008; European Commission, 2008). Moreover, women more often than men work in labour sectors with low salaries, and they earn structurally less than their male colleagues after controlling for differences in age, level of education and work experience (in the Netherlands the difference is three per cent) (Bos and Merens, 2006; Plantenga and Remery, 2006; European Commission, 2007).

A distinctive feature of the gendered labour pattern in the Netherlands is the large segment of part-time workers among employed women, namely 75 per cent in 2007 (Eurostat, 2008b). Many part-time working women have jobs of two to three days per week, leading to a relatively low average of 25 weekly work-hours (Cuijpers *et al.*, 2006).[1] Women with children of primary school age work fewest hours, on average 21 hours per week (Dijkgraaf and Portegijs, 2008). In contrast, 24 per cent of Dutch employed men work part-time (Eurostat, 2008b), and because most of these male part-timers work four days per week, men work on average 37 hours per week (Cuijpers *et al.*, 2006). Despite the Netherlands having the highest percentage of male part-time workers in the world (Keuzenkamp and Steenvoorden, 2008), the gender gap in work-hours in the Netherlands is the largest in Europe (Plantenga and Remery, 2006; European Commission, 2007; Keuzenkamp and Steenvoorden, 2008). In comparison to the Dutch part-time rates, the European (EU-15) average part-time rate in 2007 is 37 per cent among working women, and eight per cent among working men (Eurostat, 2008b).[2] As a consequence of this large 'part-time divide' in the Netherlands (Rosenfeld and Birkelund, 1995; Fagan and Rubery, 1996), Dutch women earn substantially less than men (Schippers, 1987; Bos and Merens, 2006), build up fewer (pension) benefits, and are under-represented in positions of institutional, political and corporate decision-making (Reskin, 1993; De Ruijter, Van Doorne-Huiskes and Schippers, 2003; Merens, Cuijpers and Boelens, 2004) —even though part-time workers in the Netherlands are generally well protected. Notably, women's average number of work-hours has not increased across time. Instead, the average number of hours worked by women aged 30-50 years has hovered around 24 hours across cohorts of women born between 1925 and 1985 during the time period 1980— 2004 (Portegijs, 2006; Román, Schippers and Vlasblom, 2007). The stark increase in women's labour force participation rate from 31 per cent in 1975 (Euwals, Knoef and Van Vuuren, 2007) to 70 per cent in 2007 (Eurostat, 2008a) can almost entirely be attributed to the increase in part-time jobs (Cuijpers *et al.*, 2006).

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1 Given that Statistics Netherlands does not count those who work fewer than 12 hours per week as employed, the average of 25 weekly work-hours among women in 2005 excludes women who work less than 12 hours per week. This means that the average of *all* working women including those working less 12 hours is lower than 25 hours, because 16 per cent of all working women work less than 12 hours (577,000 women). To a somewhat lesser extent this also applies to men, because seven per cent of all working men work less than 12 hours per week (289,000 men).

2 According to OECD statistics cited in (Keuzenkamp and Steenvoorden, 2008), the part-time labour force participation rate was slightly higher namely 41 per cent of women and ten per cent of men.

Parents in the Netherlands have relatively limited access to and make limited use of market-based childcare compared to other European countries, despite the relatively lengthy period of time parents have to bridge between the end of full-paid parental leave (16 weeks) and the compulsory age at which children start school (five years) (Adema, 2002; Plantenga and Siegel, 2004). Parents also have limited access to and make limited use of market-based pre- and post-school care arrangements for school-attending children (Gilsing, 2007). On the one hand, the restricted availability and use of formal childcare services may hamper parents' time investments in paid work and thus be one of the causes of the comparatively low work-hours among Dutch men and women. On the other hand, this restricted availability and use of formal childcare services may be the consequence of parents' endorsement of beliefs that mothers should do homemaking and childcare themselves rather than using paid services. The Dutch are characterized as strong proponents of the norm of mothers' self-sufficiency in the home (Portegijs, Cloïn, Ooms and Eggink, 2006; Gilsing, 2007). It has been suggested that the dominant pattern of a part-time working mother in combination with use of informal childcare services is Dutch parents' strategy to respond to this norm of maternal self-sufficiency (Portegijs *et al.*, 2006; Gilsing, 2007). The use of informal services such as provided by grandparents, neighbours, and friends responds better to this norm than the use of formal services.

Studies on gendered labour patterns tend to focus on the phase of partnership and family formation in early adulthood. Insofar studies on later life phases have been carried out, they show that labour patterns in midlife also tend to be gendered. In midlife, women invest more time in housework, even after retirement (Szinovacz, 2000; Solomon, Acock and Walker, 2004). Middle-aged women also provide more help to elderly parents than middle-aged men (Spitze and Logan, 1990; Hogan, Eggebeen and Clogg, 1993; Silverstein, Parrott and Bengtson, 1995; Ingersoll-Dayton, Starrels and Dowler, 1996; Marks, 1996). Despite contradictory findings (Moen, Robison and Fields, 1994; Wolf and Soldo, 1994; Dautzenberg *et al.*, 2000), several studies conclude that women's provision of elder-care disrupts their labour market participation in midlife (Ettner, 1995; Pavalko and Artis, 1997; Spiess and Schneider, 2003; Henz, 2004). This disruption decreases their incomes in mid-life and their pension-rates in older age (Evandrou and Glaser, 2003; Heitmueller and Inglis, 2007).

Given the immediate and long-lasting penalties of housework and kin-care in terms of finances, representation and power across the life span, the gender

differences in paid and unpaid labour constitute a classic case of social inequality. Epstein, the 2006 president of the American Sociological Association, argued that gender forms the most fundamental social divide to date, both within and beyond the household. Uncovering the mechanisms that propel the gendered division of labour deepens our understanding of gender inequalities and provides a knowledge base for policies directed at diminishing these inequalities (Epstein, 2007).

Due to the high prevalence of part-time work in the Netherlands, especially among women, this country lends itself particularly well to study the determinants of work-hours. Moreover, given that the segment of part-time workers is increasing in all European countries, especially among women, the Dutch case may present a 'preview' of the relationships between work-hours and unpaid labour that can develop in other countries in the future. The Dutch case also provides a cross-validation of previous findings in a different cultural context and in a more extensive welfare state than most European countries (except the Nordic states) and the United States of America, providing counterbalance to the prevalence of research based on American data in international journals.

1.2. Conventional explanations for gendered labour patterns

Several decades of research have produced multiple explanations for gendered labour patterns. The most influential theoretical explanations for gender differences in the labour market, household, and family have originated from sociology, economics, and social psychology. We will briefly discuss the most important theoretical micro-level explanations with regard to gender differences in paid work, housework, childcare, and the provision of care and support to elderly parents. Some theories provide an integrated explanation for gender differences in both paid and unpaid labour (for example: Gender-role theory and new home economics theory), whereas other theories only apply to paid labour (for example human capital theory), and yet others only apply to unpaid labour (for example relative resources theory).

1.2.1. Neoclassical micro-economic theory and new home economics theory

Neoclassical micro-economic theory provides a first set of theoretical explanations for gender differences in time spent on paid work. The rationalist economic approach explains individual behaviours from behavioural goals and behavioural restrictions. It poses that individuals strive for the goal of

maximizing utility, by weighing costs and benefits and prioritizing activities according to which one yields the highest levels of utility (Kooreman and Wunderink, 1996). Utility can take many forms, among which financial gain, pleasure, self-esteem, and social status. Neoclassical economic theory poses that the potential financial revenue which paid work can yield —generally referred to as the wage rate— is a central determinant of labour supply (Kooreman and Wunderink, 1996). The wage rate can have two, opposing, effects on time spent in the labour market. The income effect entails that the higher the wage rate is, the fewer hours an individual needs to work to realize a certain spending or consumption pattern and consequently, the more time can be spent on other activities than work, such as leisure, housework, or childcare. It is also argued that an increase in the wage rate leads to a higher demand for final goods such as a warm meal, which means that more time needs to be spent on producing these final goods (doing groceries and cooking), which in turn decreases the time available for paid labour (Van Der Lippe, 1993). In contrast, the substitution effect entails that the higher the wage rate is the more money an individual misses out on by spending time on other activities than paid work, and consequently, the more hours an individual will work. Given that time becomes more costly the higher the wage rate is, the more attractive it becomes to substitute home production for goods bought in the market, such as a ready-made dinner (Van Der Lippe, 1993).

Early micro-economic studies in the Netherlands and various other developed countries predominantly attributed the increase in (married) women's labour supply between 1945 and 1970 to the increase in women's real wages (Hartog and Theeuwes, 1985; Mincer, 1985). This suggests that the substitution effect prevailed over the income effect (of husbands' wages) with regard to the increase in women's labour supply during that period. Wage rates have not only proven useful in explaining historic fluctuations in women's labour supply. Women's generally lower wage rate than men's offers an explanation for women's lower labour force participation rate and work-hours compared to men. However, important criticisms on the neoclassical approach are that individuals do not necessarily behave as rational actors that have perfect insight into all costs and benefits, and that the approach does not accommodate influences of the social context on the behaviour of individuals or households (Van Der Lippe, 1993; Kooreman and Wunderink, 1996). A sociological adaptation of the neoclassical approach has shown that the micro-economic production function can accommodate dominant beliefs about gender roles

among partners, friends and other peers as one such social context influence (Van Der Lippe, 1993).

In addition to the wage rate, economists have introduced time budget restrictions as an explanation for gender differences in both paid and unpaid labour. An extension of the neoclassical micro-economic model of consumer behaviour, Becker's new home economics (NHE) theory argues that within couples, men tend to specialize in paid labour and women in housework and childcare because such a gendered task-specialization would yield the highest revenues for the household (Becker, 1981, 1985). Becker's theory has met with strong criticism, especially on his assumption that women would yield higher utility from housework and childcare than men because they would be intrinsically better at these activities due to biological differences, and vice versa with regard to paid labour (Berk and Fenstermaker Berk, 1983; Siegers, 1984). Becker's assumption that task-specialization would maximize utility has also been criticised since the 1990s, when divorce rates had risen sharply in the USA. Given that gaining 'all-round' skills in both paid and unpaid labour can protect from capital loss after relationship dissolution, an egalitarian division of labour between spouses promises to be a more successful strategy to maximize utility in the future than task-specialization (Oppenheimer, 1994; Treas, 2008).

Despite these and other appropriate criticisms on new home economics theory (for extensive overviews of criticisms see Van Der Lippe, 1993; for extensive overviews of criticisms see Kooreman and Wunderink, 1996), new home economics theory's strength is that it considers the interdependencies between partners within couples. This has provided a theoretical base for studying the partner's time expenditures on paid and unpaid labour and the partner's hourly wage as determinants of individuals' time spent on paid work and unpaid labour. Empirical studies have provided ample support for such intra-couple interdependencies. For example, in couples where women work (near) full-time, men tend to do more housework and spend more time with their children (Coltrane and Ishii-Kuntz, 1992). Men also contribute more to housework the more hours their partners work (Cunningham, 2007). Moreover, in the Netherlands women have been found to spend more time on paid labour and less on housework, the higher women's wage rates were compared to their partners (Van Der Lippe and Siegers, 1994). Yet, there is evidence that these interdependencies within couples tend to be gendered, in the sense that women's time spent on paid labour tends to be more responsive to their own and their partner's time spent on unpaid labour than men's time spent on paid labour. For

example, in dual earner couples women more often than men decrease their work-hours and avoid other investments in paid work, such as a training or a promotion, in response to their partner's investments in paid work and the presence of infant children (Maume, 2006).

1.2.2. Human capital theory

Human capital theory, another extension of neoclassical micro-economic theory, points at the role of educational and professional trajectories in explaining gender differences in labour market behaviour. Human capital theory poses that current expectations about the future guide current investments in resources, such as skills and knowledge, which determine future benefits from labour activities, in turn determining labour market attachment and success (Mincer and Polachek, 1974; Becker, 1985; Schippers, 1987). Gender-differences in expectations about the future result in gender-specific human capital investments and ultimately lead to gender differences in income and labour market participation. The segregation in school-trajectories is a case in point. Women predominantly choose school types that prepare for work in the care or service sectors, while men dominate in technical studies (Schippers, 1987; Cuijpers *et al.*, 2006). Also, women more often than men choose a schooling and work-path that allows for the combination of work and family life. Schippers (1987) argues that this is because women expect to carry the main responsibility for household and children in the future, while men expect to be responsible for the household income.

1.2.3. Time availability perspective

Another explanation for why women generally perform more routine housework than men is the so-called time availability perspective, as proposed by sociologists. According to this perspective, men's and women's contributions to housework are determined on the one hand by the amount of housework that needs to be done for a household to function, and on the other hand by their own and others' availability to perform housework (Hiller, 1984; Coverman, 1985; England and Farkas, 1986; Shelton and John, 1996). Akin to the micro-economic principle of time budget restrictions, the time availability perspective considers time spent on paid labour as an important time constraint on performing housework. Multiple studies have confirmed that women's and men's time expenditures on housework are smaller the more hours they work in the labour market (for elaborate overviews see Shelton and John, 1996; Coltrane, 2000), and the same is found regarding their relative contributions to housework (Cunningham, 2007). Studies on the relationship between men's

housework time and women's work-hours within couples yield contradictory results. Whereas some find that men invest more time in housework or contribute more to housework (Cunningham, 2007) as women work more hours, other studies find weak relationships or no relationship at all (Shelton and John, 1996). The time availability perspective also considers (the partner's) work *schedules* (standard/non-standard) as constraints on time available for housework, and the amount of housework that needs to be done. In couples where women work weekend and night-shifts, men tend to do more housework and spend more time with their children (Presser, 1994). The larger the number of children and other household members is, the larger the required amount of housework and childcare becomes, with infant children requiring particularly intensive care (e.g. Pittman and Blanchard, 1996). However, various studies report that women's housework time responds more strongly to number and age of children than men's (Shelton and John, 1996), and some studies report a U-shaped relationship between men's contributions to housework and their number of children (Kamo, 1991). Marital status also influences women's and men's time spent on housework. Married women tend to do more housework than single, unmarried cohabiting, divorced or widowed women (South and Spitze, 1994), whereas married men tend to do less (Gupta, 1999), especially compared to divorced and widowed men (South and Spitze, 1994).

1.2.4. Relative resources perspective

The literature on relative resources or resource bargaining, grounded in sociology and economics, espouses a rationalist, exchange-based, perspective on the gendered division of housework (Brines, 1993, 1994; Shelton and John, 1996; Bianchi *et al.*, 2000; Coltrane, 2000; Greenstein, 2000; Blossfeld and Drobnic, 2001a). The relative resources perspective argues that neither men nor women want to do (routine) housework and that the partner with most bargaining power uses this power to do least housework. The partner who has command over most resources is thought to have most bargaining power. Resources typically explored are income, educational achievement, and occupational status (Shelton and John, 1996; Bianchi *et al.*, 2000; Greenstein, 2000). Empirical findings suggest that the relative resource perspective generally explains the division of housework in heterosexual couples, except for couples in which women out-earn their male partners. Namely, the relative resources perspective predicts that the men in these couples would do most housework. However, men in these couples are found to do very little housework, and instead women to do most of it (Brines, 1993, 1994; Greenstein, 2000; Bittman, England, Folbre, Sayer and Matheson, 2003). As we will discuss

in the next section, this finding is often explained as an example of 'doing gender'.

1.2.5. Gender roles perspective

The gender roles or gender ideology perspective argues that gendered labour patterns come about as men and women behave in accordance with gender-stereotypes, or gender roles. This theoretical perspective originated as part of the feminist critique on micro-economic and exchange-based approaches to gendered labour patterns (West and Zimmerman, 1987; Ferree, 1990). Feminists argued that there must be more to gendered labour patterns than time budget restrictions and economic exchange, given that these approaches fail to explain why time budget restrictions and economic dependency seem to have a stronger impact on women than on men (West and Zimmerman, 1987; Ferree, 1990; South and Spitze, 1994; Greenstein, 1996; Shelton and John, 1996; Bianchi *et al.*, 2000; Coltrane, 2000). The oldest strand of gender roles theory poses that through (childhood) socialization men and women internalize dominant gender-stereotypical beliefs about appropriate behaviours for men and women, such as the belief that it is men's primary role to provide income for their families, and that women's primary role is to take care of their families and households (e.g. Block, Von der Lippe and Block, 1973; Weitzman, 1975; Chodorow, 1978; Whitbeck and Gecas, 1988; Crouter and Manke, 1995; Witt, 1997; Cunningham, 2001a). In turn, individuals' gender-role beliefs, often operationalised as gender-role attitudes, are theorized to have an impact on their behaviour with regard to paid and unpaid labour (Shelton and John, 1996; Bianchi *et al.*, 2000; Jansen and Kalmijn, 2002; Cunningham, 2005). Some authors argue that certain behavioural experiences may also shape gender-role attitudes, in addition to attitudes shaping behaviour (Acock and Bengtson, 1978; Moen, Erickson and Dempster-McClain, 1997; Cunningham, Beutel, Barber and Thornton, 2005). The mechanism of gender role socialization has been widely used to explain gender differences, and individual differences (among women or men) with regard to housework and childcare contributions, and participation in paid work (White and Brinkerhoff, 1981b; Van Der Lippe, Van Doorne-Huiskes and Siegers, 1993; Booth and Amato, 1994; Allen and Webster, 2001; Denuwelaere, 2003; Bulanda, 2004; Beagan, Chapman, D'Sylva and Bassett, 2008).

The second, somewhat more recent, strand of gender ideology theory is commonly referred to as the 'doing gender' approach. This perspective poses that men and women express their gender ideology through their performance of

gender-typed tasks such as housework, childcare and paid work (Berk, 1985; West and Zimmerman, 1987). In this way, men who are out-earned by their wives can compensate for their deviant gender role display by avoiding routine housework, and breadwinner wives can compensate for their deviant behaviour by adopting the role of 'housewife' in the realm of housework (Brines, 1994; Bittman *et al.*, 2003; Tichenor, 2005). Research comparing same-sex couples with hetero-sexual couples suggests that doing gender plays an important role given that the division of housework in same-sex couples is more egalitarian than in heterosexual couples (Solomon, Rothblum and Balsam, 2005).

1.2.6. Focus of conventional micro-level explanations limited to individuals, couples and households

The previous discussion of the most important conventional micro-level explanations for gendered labour patterns indicates that most of these explanations tend to focus either on the individual supply of paid and unpaid labour, or on the division of labour within couples, and sometimes households. Thus, the social context that is considered with regard to gendered labour patterns tends to be the couple dyad or the household. Couple-contextual explanations recognize that partners play a role in the development of gendered labour patterns because of the interdependencies between the activities of the two partners within a couple. Such couple-contextual explanations address the impact of the partner-relationship status (LAT, unwed cohabitation or married), the impact of the partner's individual characteristics such as age, education, employment history and gender-role attitudes, the impact of the partner's activities, such as paid work, housework and childcare, and the balance between each partner's resources, such as hourly wage and level of education. Household-contextual explanations recognize that individual labour patterns do not only come about in interaction with a partner, but that the presence and characteristics of other household members, notably the number and age of dependent children in the household, also determine the amount of housework and care that need to be done.

1.3. The intergenerational context of gendered labour patterns

The social context in which women and men decide about their participation in paid and unpaid labour is not limited to their partner, children, and other household members. We all have had parents, and most of us were raised by them. Due to the prolonging life span and the decreasing birth rate, the *inter*generational relationships within families, namely the relationships with

parents and grandparents that cut vertically through generational lines, increasingly outnumber the *intra*generational relationships, namely the relationships with siblings and cousins that run horizontally along generational lines (Rossi and Rossi, 1990; Liefbroer and Dykstra, 2000; Bengtson, 2001; Dykstra, 2004; Seltzer, Bachrach and Bianchi, 2005). This *verticalisation* of family relationships has made the parent-child relationship one of the most enduring relationships throughout the life course (Bengtson, 2001; Seltzer *et al*., 2005). The period during which individuals live in the position of an (adult) child to a parent increasingly exceeds the period during which individuals parent their own children (England and Farkas, 1986; Rossi and Rossi, 1990; Seltzer *et al.*, 2005).

Despite the importance of the parent-child relationship throughout the life course, few studies on gendered labour patterns have taken the role of parents in gendered labour patterns into account. Yet there is evidence that throughout the life course parents transfer their values to children (Glass, Bengtson and Chorn Dunham, 1986; Moen *et al.*, 1997; Witt, 1997), provide children with behavioural examples (Mischel, 1966; Bandura, 1977; Cunningham, 2001b; Gupta, 2006a), with resources (Blau and Duncan, 1967; Kalmijn, 1994; Korupp, 2002) and with practical help (Marks, 1996; Silverstein and Bengtson, 1997; Henretta, Grundy and Harris, 2002; Albertini, Kohli and Vogel, 2007; Hank and Buber, 2009). Parental transfers to children, in particular the behavioural patterns reproduced across generations, might help to explain why men's and women's gendered labour patterns persist over time.

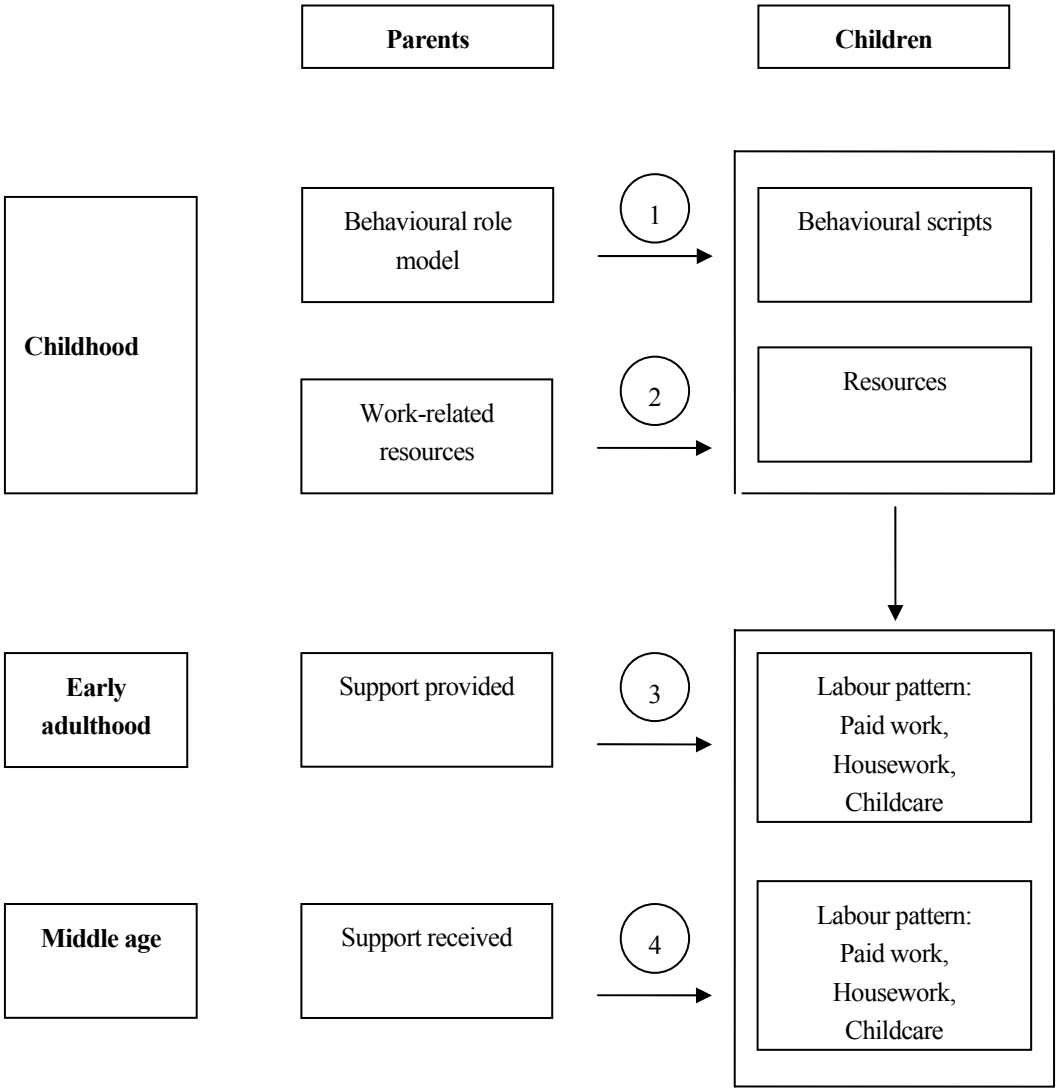
The aim of the present study is to examine whether intergenerational transfers provide an explanation for gendered labour patterns over and above the conventional individualist, couple- and household-based explanations. Our central research question is: ***What role do intergenerational transfers play in the paid and unpaid labour patterns of men and women in the Netherlands?*** We study three types of intergenerational transfers that are likely to have an impact on women's and men's labour patterns in four different ways. Firstly, we study the extent to which parents' contributions to housework and childcare in childhood shape men's and women's contributions to housework and childcare in adulthood, through behavioural role modelling (*figure 1.1*, arrow 1). Secondly, we study the extent to which the mother's labour force participation in childhood has a lasting impact on women's participation in paid work and work-hours in adulthood, either via behavioural role modelling (figure 1.1, arrow 1) and via resource transfers from mothers to daughters (figure 1.1, arrow

2). Thirdly, we study the extent to which downward intergenerational transfers of instrumental support, namely from grandparents to the parents of young children, have an impact on labour force participation and work-hours of mothers and fathers with young children (figure 1.1, arrow 3). Finally, we study the extent to which upward intergenerational transfers of instrumental support, from middle-aged men and women to their elderly parents, have an impact on middle-aged men's and women's work-hours (figure 1.1, arrow 4). In the following sections we introduce the four research questions that guide our empirical research on these intergenerational transfers in subsequent chapters, and briefly discuss the theoretical and empirical literature which has informed our empirical analyses.

1.3.1. Behavioural role modelling

The behaviour-oriented strand of socialization theory referred to as role modelling or social learning theory poses that individuals partly model their behaviours on the behaviours of a significant person in the social environment, a role model (Mischel, 1966; Block *et al.*, 1973; Bandura, 1977). Rather than precise imitation of specific behaviours, role modelling theory predicts that role models offer a set of guidelines, or scripts, for particular behaviours in particular contexts (Gupta, 2006a). The mechanism entails that men and women revert to their parents' role model from childhood (figure 1.1 arrow 1). The behaviour of parents during childhood is considered to be an important determinant of behaviour throughout the life course, because individuals first learn about proper behaviours in childhood and parents generally function as the primary persons who raise a child (Bandura, 1977; Cunningham, 2001a; De Valk, 2004; Denuwelaere, 2003; Witt, 1997). *Gendered* behaviours with regard to paid and unpaid labour are also learned from parents during childhood (Mischel, 1966; Block *et al.*, 1973; Chodorow, 1978). Most adults have witnessed their parents' labour division as children, and many have also been an active part of this labour division as they lived in the same household and assisted their parents with housework during childhood. Parents' early behaviours offer first-hand and 'lived' examples of what is appropriate or desired for men and women in the realm of paid work, housework, and childcare, in particular once men and women come to occupy the role of partner and parent themselves. Parents' presence and influence from early on in their children's lives, in combination with their role of primary child-raisers, sets parents apart from other sources of reference for appropriate behaviour, such as friends and colleagues.

Figure 1.1. Relationships between intergenerational transfers and labour patterns of men and women



1. Parental behavioural role modelling in childhood.
2. Transfer of work-related resources from parents to children in childhood.
3. Impact of support provided by parents to children on labour pattern adult children.
4. Impact of support received by parents from children on labour pattern adult children.

In contrast to the literature on the parent-child transmission of gender-role *beliefs*, empirical studies of parent-child behavioural role modelling with regard to gendered *behaviours* in the realms of paid work, housework, and childcare are scarce. The available research on the role modelling of contributions to routine housework is comprised of two studies, both focusing on routine housework (meal preparation, cleaning, grocery shopping and laundry) and both carried out in the United States (Cunningham, 2001b; Gupta, 2006a). Both studies find support for the role modelling mechanism among men. Regarding women, the first study finds that women contribute less to routine housework when their mothers were employed, and no impact of the parents' division of routine housework on women's contributions to routine housework (Cunningham, 2001b). The second study, which assesses the impact of the mother's early labour force participation on *sons'* contributions to routine housework (not daughters'), finds that men contribute more to routine housework when their mothers were employed (Gupta, 2006a). However, this relationship is only confirmed for men who live with a partner, rather than for single men, and for men whose fathers were present during childhood, rather than men who were raised by their mothers alone. This suggests that behavioural role modelling takes place, albeit depending on certain contextual factors.

To our knowledge there are no studies on the behavioural role modelling of men's and women's contributions to occasional housework, such as maintenance or paying bills, or on the behavioural role modelling of men's and women's contributions to childcare. Given that women do most of the daily and time-intensive routine housework whereas men do most occasional housework, which requires shorter and more sporadic time investments (Bianchi *et al*., 2000; Blair and Lichter, 1991; Coltrane, 2000), the literature's strong focus on routine housework has resulted in limited knowledge about the determinants of *men's* contributions to housework. By including occasional housework in our study of behavioural role modelling, we aim to provide more insights into the determinants of housework that is typically done by men. Furthermore, in the literature on gendered labour patterns, men's and women's contributions to childcare and (routine) housework are often assumed to be governed by the same mechanisms, such as gender role ideology, relative resources, and time availability (compare Coltrane, 2000; Monna and Gauthier, 2008). By addressing the behavioural role modelling of men's and women's contributions to childcare, we aim to expand present knowledge on the similarities and differences between the determinants of contributions to childcare and the determinants of contributions to routine housework. Moreover, given the dearth

of empirical studies on the impact of parental role modelling in countries other than the USA, we aim to provide some cross-validation of earlier work by studying behavioural role modelling of unpaid labour in the Netherlands. We answer the following research question in chapter 2: ***To what extent do adult men's and women's contributions to routine housework, occasional housework and childcare in the Netherlands depend on their parents' contributions to housework and childcare in childhood?***

In addition to the role-modelling of behavioural preferences with regard to housework and childcare, the labour market participation of parents in childhood also provides a behavioural example with regard to men's and women's participation in paid work. This applies especially to the labour market behaviour of mothers, given that most non-working mothers of the current generation of working age adults were homemakers, whereas the few non-working fathers were unemployed. Non-working mothers thus displayed gender-stereotypic behaviour whereas this does not apply to non-working fathers. Children of working mothers are not only expected to have more egalitarian attitudes towards women's work than children of homemaking mothers, but also to behave in a more gender-egalitarian way. Children of working mothers have witnessed their own mother combining paid and family work, and were physically part of their mother's combination strategy in childhood. They were more likely to help out with chores than the children of homemaking mothers, and their fathers were likely to perform more housework and childcare than sole-breadwinner fathers. In this way, the children of working mothers are more likely to have learnt from an early age that mothers can reconcile their paid work with raising a family. The children of working mothers are also more likely to share housework and childcare with their partner or outsource unpaid labour, because they have learnt that mothers do not need to be the sole person that is responsible for the household. In contrast, when the children of homemaking mothers make decisions on the reconciliation of their own (and their partner's) paid jobs in combination with raising a family, they do not have these experiences and cannot resort to similar work-family strategies as their mothers, nor take their mother's example as a starting point from which to develop their own strategy. In the next section we will first discuss the literature on resource transfers from parents to children on the basis of the stratification literature, before we formulate a research question about the impact of mother's labour force participation on children's paid work, based on both the role modelling principle and the notion of resource transfers.

1.3.2. Resource transfers

The perspective of stratification or social mobility provides another rationale for the impact of parents' paid labour patterns in childhood on the labour market behaviours of men and women in adulthood. Its central argument is that parents equip their children with resources that can increase children's chances of educational and occupational success, and that the degree to which parents transfer such resources depends on the parents' own educational and occupational trajectories (Blau and Duncan, 1967; Korupp, 2000). Given that studies on stratification aim to explain educational and occupational status attainment, few studies use the mechanism of parent-to-child resource transfers to assess parents' impact on men's and women's *labour force participation and work-hours*. An exception is Sanders (Sanders, 1997), who studied the impact of mothers' level of education and labour force participation on the level of education and the labour force participation of women with children of their own in the Netherlands. She found that women were more often employed when their mothers had been employed. However, this study was restricted to women with children, and it did not control for various important determinants of women's employment, such as marital or partnership status, and number and age of children. Moreover, this study did not assess whether daughters' *work-hours* also varied with their mothers' early employment. Yet it can be argued that resource transfers from parents to children during childhood may have a lasting impact on children's labour force participation *and* work-hours.

In this section we focus on the transfer of resources from mothers to daughters, because the impact of such resource transfers is likely to apply particularly to mothers and daughters. Given that the historic rise in the labour market participation rate of mothers in the Netherlands started in the early 1970s, most of today's adults of working age (between 15 and 64) have grown up with a homemaking mother, yet a sizeable minority group of about 30 per cent has grown up with a working mother. This allows us to compare the labour market behaviour of children raised by working mothers with the behaviours of children raised by homemaking mothers. In contrast, today's adults who grew up with a non-working father form a marginal group. We focus on adult daughters rather than on both daughters and sons, because there is insufficient variation in men's labour market participation and work-hours.

Several studies provide arguments as to what mechanisms may guide such resource transfers (Kalmijn, 1994; Aschaffenburg, 1995; Korupp, 2000). When combined, these arguments suggest that, in addition to education-related

resources, working mothers are likely to transfer three types of resources to their daughters that non-working mothers cannot transfer or to a lesser extent, namely their work-related human, social, and financial capital. Transfers of human capital refer to mothers teaching their children skills and behavioural codes that facilitate future entry into particular labour market sectors and occupational levels. For example, how to convincingly present one-self, how to negotiate, or how to combine family life with paid work. Transfers of social capital pertain to mothers who introduce their children in their professional network or who retrieve information, contacts, an internship or a summer job from their professional network for their children. Such transfers of social capital can play a crucial role from early on in the daughters' careers. The financial capital of working mothers, namely their income, allows working mothers to spend money on their daughters' education, for example by financing tools to enhance the daughter's learning process such as computers, internet connection, and books, and private lessons or a study year abroad. In this way, the financial capital of working mothers is likely to feed into their daughters' labour market behaviour indirectly, via daughters' educational development.

Provided that they do not form a specific group of children with lacking or low father resources, the daughters of working mothers are at an advantage over the daughters of non-working mothers when it comes to their educational development and the development of labour market related skills and social network contacts. The daughters of working mothers are more likely than the daughters of homemaking mothers to have favourable start-positions at labour market entry, to achieve occupational success, and to continue investment in their professional development in adulthood. Consequently, the daughters of working mothers are more likely to remain in the labour market after childbirth and to have jobs requiring above average work-hours compared to the daughters of homemaking mothers.

We particularly expect to find a relationship between the early labour force participation of mothers and the work-hours of daughters, given that women's labour force participation has become rather common, whereas women's work-hours vary widely in the Netherlands. This means that there is more variation to explain in women's work-hours than in women's labour force participation, especially when controlling for the conventional explanations of education, employment history and demographics. Additionally, the cultural significance of women's labour market participation has changed over time, from a counter-stereotypical behaviour in the 1960s, to an activity that is considered normal and

accepted for women to do, also when they have young children. In contrast, women who work more than three days per week when they have young children are considered to deviate from their gender role. Building forth on the stratification literature and the literature on behavioural role modelling, we answer the following research question in chapter 3: ***To what extent do daughters who were raised by working mothers work more hours in adulthood than the daughters of homemaking mothers?***

1.3.3. Downward transfers of instrumental support

In adulthood parents continue to influence men and women's labour patterns through their involvement in exchanges of help. Intergenerational family relationships function as important sources of support across the life span (Bengtson and Roberts, 1991; Silverstein and Bengtson, 1997). In the early phase of adulthood when union and family formation take place, instrumental intergenerational support tends to have a downward direction, from grandparents to the parents of young children. A host of studies describe how grandparents, grandmothers in particular, are the most important providers of childcare to parents who arrange informal childcare (Presser, 1989; Hair Hunts and Avery, 1998; Brandon, 2000; Wheelock and Jones, 2002; Portegijs *et al.*, 2006; Gilsing, 2007). Estimates of the prevalence of grandparent childcare in households with young children range from 21 per cent in the USA (Johnson, 2005) to an average of 32 per cent across 10 countries in Europe and 58 per cent when sporadic childcare is included (Hank and Buber, 2009). In the Netherlands, on average 30 per cent of households with young children are estimated to use grandparent childcare (Portegijs *et al*., 2006). Children in the 4-12 year age group in the Netherlands are less often in any childcare and therefore in grandparent care, namely 16 per cent (Portegijs *et al*., 2006).

Somewhat less known is that a substantial minority segment of parents of young children also receives other practical help from grandparents, with routine housework such as cleaning, laundry, cooking, and grocery shopping, with occasional housework such as house and garden maintenance and paper work, and with transportation and lending things. In continental Europe on average nine per cent of parents aged 50 and older are estimated to provide such help to their adult children, amounting to 12 hours per week on average, net of childcare (Albertini *et al*., 2007). A comparative study of the United Kingdom (UK) and the USA yielded higher estimates of downward support, reporting that 32 to 56 per cent of parents aged 55 and older help their (adult) children with chores,

paperwork and other practical matters in the UK and 23 to 33 per cent of parents in the USA (Henretta *et al*., 2002).[3]

Despite these indications of a substantial provision of instrumental support by parents to adult children, little is known about the impact of such parental support on men's and women's paid labour patterns. Previous studies have suggested that dual worker parents and single parents use grandparent childcare more often and more intensively than couples in which one parent (most often the mother) is not employed, although grandparents care for the children of non-employed parents too (Lowe Vandell, McCartney, Tresch Owen, Booth and Clarke-Stewart, 2003; Guzman, 2004; Johnson, 2005; Lippman, Vandivere, Keith and Atienza, 2008). Two studies, one among immigrant grandparents in France (Dimova and Wolff, 2008), the other among mothers in the UK (Gray, 2005), suggest that grandparent childcare enables mothers to participate in the labour force. However, both studies focus on mothers' labour market participation without elaborating on the impact of grandparent childcare on mothers' *work-hours*. Gray only distinguishes between full- and part-time workers in descriptive analyses and makes an incidental reference to mothers' work-hours (Gray, 2005). In the Netherlands, it is particularly relevant to assess the impact of received help from parents on women's *work-hours* due to the prevalence of part-time work among women, especially among mothers of young children. Other limitations of these studies are that they do not include fathers and do not include grandparent help with housework. Moreover, the results from the French study cannot be generalized to the larger French population given that they are derived from an immigrant sample. This is why we aim to answer the following question in chapter 4 of this study: ***To what extent do parents with young children who receive grandparent help with childcare and housework work more hours than parents who do not receive such help?***

Micro-economic theory postulates that parents' time expenditures on childcare, housework, paid work and leisure are interdependent within an individual time budget. Consequently, it is likely that receiving instrumental help from grandparents with housework and childcare frees time and energy that parents can spend in the labour market, especially when we consider the time squeeze that parents with young children face (Kops, Van Der Lippe and Jager, 2006).

[3] Note that these UK and USA percentages may include help provided by parents to (college-attending) children in their twenties and early thirties who have no family of their own yet, in addition to help by grandparents to parents of infant children.

This relationship between time spent on paid work and received instrumental support from parents is illustrated by arrow number 3 in figure 1.1 . Grandparent help is particularly likely to enable mothers to spend time in the labour force, given that mothers tend to carry out the lion's share of childcare and housework within households (Bianchi *et al.*, 2000). It has been suggested that "childcare of grandchildren (…) has the function of helping young mothers in the upward path of social mobility. This is an expression of female solidarity towards promoting the professional career of women" (Attias-Donfut and Wolff, 2000). In this way, grandparent help can reduce gender inequalities with regard to income, occupational success, representation, and influence in organizations. Moreover, the Dutch have been characterized to strongly endorse the norm that mothers should do homemaking and childcare themselves rather than using paid services (Portegijs *et al.*, 2006; Gilsing, 2007). Informal help responds better to this societal norm of self-sufficiency in the home than paid services (Portegijs *et al.*, 2006; Gilsing, 2007). On the one hand, this makes it particularly likely in the Netherlands that informal services such as grandparent help enables parents, especially mothers, to work for pay. On the other hand, given that many Dutch women work less than three days per week, the time budget conflict between paid work, childcare and homework is likely to be smaller than in other countries with a higher prevalence of full-time work among women. This makes it less likely in the Dutch context than in other countries that informal services such as grandparent help enables parents (mothers) to work for pay. It is of interest to find out which of these two contradicting views on the impact of received grandparent help on mothers' work-hours receives empirical support.

1.3.4. Upward transfers of instrumental support

Once children reach middle-age and parents old age, instrumental intergenerational support is increasingly directed upwards, from children to parents. Although spouses tend to be the primary support givers in old age, adult children, especially daughters, tend to be next in line as secondary support givers, and as the primary support provider when one parent has passed away or when both parents suffer from severe health problems (Stone, Cafferata and Sangl, 1987; Marks, 1996; Marks and Lambert, 1997). Adult children and daughters in particular are regarded as the "most prodigious and reliable sources of instrumental social support to their parents" (Silverstein *et al.*, 1995). In this study upward instrumental support is defined as help to an elderly parent with the so-called instrumental activities of daily living (IADLs), namely help with routine housework, such as laundry, cleaning, and grocery shopping, and help with occasional housework, such as maintenance work in and around the house,

paying bills and other paper work. A 2004 study of 'baby-boomers' born between 1945 and 1954 in ten European countries estimated that on average 22 per cent of the middle aged adults provided routine and occasional household help to their ascendants. Moreover, when co-residence with an elderly parent was also counted as providing elder support, on average 40 per cent of middle-aged Europeans was found to provide practical help (Ogg and Renaut, 2006).

The literature on intergenerational relationships and upward transfers of help focuses strongly on the provision of time-intensive physical care to elderly parents, called help with activities of daily living (ADL) such as bathing, feeding, and toileting, and the impact of providing such care on the labour force participation of the care-providers (mostly women). Yet it is also relevant to study the impact on paid work of upward transfers of help to elderly parents with instrumental activities of daily living (IADL), such as help with cleaning, grocery shopping, doctor's visits, gardening, and paperwork. The majority of men and women older than age 65 in developed countries do not suffer from severe functional limitations (Perenboom, 2005; Lafortune and Balestat, 2007) and consequently can feed, bathe, dress and toilet themselves. In the Netherlands, men spend more than 95 per cent of their life beyond age 65 without moderate to severe health problems, and women more than 93 per cent (Perenboom, 2005). Those who suffer from severe functional limitations tend to be concentrated among the oldest old, namely those beyond age 85 (Perenboom, 2005; Lafortune and Balestat, 2007; Nusselder *et al.*, 2008). Therefore, most elderly can live independently for a long time, provided they receive help with specific activities that are physically demanding, such as lifting heavy items and reaching high or bending low during grocery shopping, gardening or housecleaning, or help with paperwork and transportation in the event of diminished eye-sight.

In addition to its prevalence across developed countries, the institutional context of countries with extensive public provisions for elder-care, such as the United Kingdom, Sweden, Denmark and the Netherlands (Bettio and Plantenga, 2004), provides another argument for studying the upward provision of instrumental support in relationship to labour market involvement. In countries where the time-intensive daily care for elderly is provided in public institutions (elder-homes) or by publicly funded in-home helpers, instrumental support with housework and financial paperwork is the only type of practical help adult children are likely to provide to their parents. Interestingly, cross-comparative research in Europe suggests that such extensive public care provisions do not

crowd out the provision of help by family members. Elderly receive more instrumental support in the 'Northern' countries with extensive public eldercare provisions, whereas elderly receive more daily assistance from children and co-reside with their children more often in the 'Southern' countries, where public elder care provisions are limited (Bettio and Plantenga, 2004; Attias-Donfut, Ogg and Wolff, 2005; Motel-Klingebiel, Tesch-Roemer and von Kondratowitz, 2005; Ogg and Renaut, 2006; Albertini *et al.*, 2007). Given that studies on the consequences of providing help to elderly parents for the labour market participation of help-givers all focus on the provision of elder-care, rather than instrumental support, and most studies have been carried out in the liberal welfare state context of the USA (cf. Spiess and Schneider, 2003), it is important to study the impact of providing instrumental support to parents on the labour market behaviour of middle aged daughters and sons in the context of the comparatively extensive Dutch welfare state.

The provision of elder support mirrors the gendered division of housework and childcare between partners (Dwyer and Seccombe, 1991; Hook, 2004). Just as women do most of the every-day routine housework and men the occasional chores (Bianchi *et al.*, 2000; Coltrane, 2000), women generally provide more support to elderly parents than men, and also provide the more time-consuming and frequently re-occurring types of support that do not fit easily into a working schedule (Stone *et al.*, 1987; Spitze and Logan, 1990; Silverstein *et al.*, 1995; Bracke, Christiaens and Wauterickx, 2008). In view of this gendered pattern in upward support provision and the micro-economic principle of inter-dependencies within time budgets, it seems likely that the provision of parent-support provides yet another explanation for women's smaller time expenditures on paid work compared to men, in addition to the conventional explanations of gendered labour patterns. Yet the impact of support provided to elderly parents on women's (or men's) labour force participation and work-hours has not been studied other than in qualitative research (Van Doorne-Huiskes, Dykstra, Nievers, Oppelaar and Schippers, 2002). This qualitative research suggests that the provision of parent-support, can conflict with (women's) paid work, akin to the provision of *care* to parents (Ettner, 1995; Pavalko and Artis, 1997; Spiess and Schneider, 2003; Henz, 2004). Providing parent-support was found to interrupt paid work, for example, when support-providers had to call their parent's doctor during office hours (Van Doorne-Huiskes *et al*., 2002). Providing parent-support was also associated with stress and fatigue, especially when support-providers monitored and coordinated the help provided by others, including professionals.

In view of the lack of quantitative empirical research on the implications of the frequently occurring transfers of instrumental support to elderly parents for the labour market behaviours of support-providers, we aim to answer the following question in chapter 5: ***To what extent are mid-life adults' work-hours and provision of parent-support interrelated?***

Although micro-economic theory commonly does not address the provision of parent-support, we can derive from it that paid work and providing parent-support are *interdependent* activities within an individual time budget, given that parent-support costs time that cannot be spent on paid work (Johnson and Lo Sasso, 2000; Spiess and Schneider, 2003). Individuals need to weigh the rewards gained from paid work, from parent-support, housework, and from leisure simultaneously, as well as the costs of forgoing these activities, when deciding how to fit all activities into their restricted schedules. It must be taken into account that micro-economic theory offers a somewhat simplified depiction of time allocation in the context of reconciling parent-support with paid work, given that support-providers may not characterize as rational and perfectly informed agents when they need to respond quickly to parental needs and have little opportunity to evaluate the consequences of their decisions (cf. Spiess and Schneider, 2003). The relationship between time spent on paid work and provided instrumental support to elderly parents is illustrated by arrow number 4 in figure 1.1.

The common living arrangement in mid-life is to live with a partner and one or more children, followed by living together with a partner, according to statistics on household composition in various developed countries (Agree, Bissett and Rendall, 2003; Fields, 2003; US Census Bureau, 2006; Fokkema and Liefbroer, 2008; Statistics Netherlands, 2008). Consequently, midlife adults' reconciliation of paid work, parent-support, housework, family work, and leisure is likely to depend at least in part on the activities of their partners and co-resident teenage children. Household members can ease the reconciliation of work and parent-help by providing help or resources to help-givers (Szinovacz and Davey, 2008), yet also make demands on help-givers' time and energy (Henz, 2004). Based on the micro-economic literature, in particular Becker's new home economics theory (Becker, 1981; 1985), we explicitly take the interdependencies between the time expenditures of household members on various activities, notably between partners, into account in our study of the interdependency between the provision of parent-support and paid work in chapter 5.

1.4. Data

All analyses in this study are based on the main sample of the Netherlands Kinship Panel Study (NKPS), a nationally representative survey on family relationships in the Netherlands, with a first wave collected between October 2002 and December 2004 (Dykstra *et al.*, 2005), and a second wave collected between September 2006 and June 2007 (Dykstra *et al.*, 2007). The NKPS offers suitable data to study intergenerational transfers in relationship to labour patterns in the Netherlands, because the survey was designed to measure the structure, extent, and quality of kinship relationships in the Netherlands. The survey provides information on various types of transfers between the primary respondents and multiple family members, including parents, as well as information about transfers between the partners of primary respondents and several of the partners' family members. Additionally, the survey provides current and retrospective information on educational and labour market trajectories, relationship and family formation histories, division of housework and childcare between respondent and partner, various types of attitudes, and income, among many other individual, relational, and household characteristics of the primary respondents.

The first wave main sample data were based on a random address sample of individuals living in private households in the Netherlands in the age group 18 to 79 years, which resulted in 8,161 respondents (3,420 men and 4,741 women). In the second wave, data were collected from 6,026 respondents (2,453 men and 3,573 women). In both waves, data from the primary respondents were collected by means of face to face computer assisted personal interviews (CAPI) and paper-and-pencil drop-off self-completion questionnaires. In both waves, data were also collected from the partners of primary respondents (provided the respondent had a partner) by means of self-completion questionnaires directed to the partner. The overall response rate in the first wave was 45 per cent, which was comparable to the average response rates of other large scale family surveys in the Netherlands (Ultee and Ganzeboom, 1992; De Graaf, De Graaf, Kraaykamp and Ultee, 1998; De Graaf, De Graaf, Kraaykamp and Ultee, 2000; De Leeuw and De Heer, 2001; De Graaf, De Graaf, Kraaykamp and Ultee, 2003). In the first NKPS wave, valid self-completion questionnaire data were obtained for 92 per cent of primary respondents, and for 72 per cent of the partners. We use such primary respondent self-completion data in all subsequent chapters, and partner self-completion data in chapter 5. The response rate of primary respondents in the second wave data was 75 per cent. Valid self-

completion questionnaire data were obtained for 95 per cent of these primary respondents.

In each subsequent chapter we use a different sub-sample of the main respondent sample that befits the specific research question posed. We use data from the first wave sample in all chapters except for chapter 2. It was necessary to use the data of the second wave in chapter 2, because the first wave data did not contain information on the parents' early contributions to housework and childcare. Please be referred to the subsequent chapters for detailed information about the specific sub-samples drawn from the NKPS data.

In both waves, male primary respondents are somewhat under-represented compared to female primary respondents, especially among men younger than 35 years (Dykstra *et al.*, 2005, 2007). Women in the age group of 35 to 54 years are somewhat over-represented, as are women with co-resident children. The under-representation of young age groups in the first wave has increased in wave two, because respondents have grown older and no new respondents were recruited. The first and second wave samples are quite representative to the comparison population with regard to degree of urbanization and regional location. In the first wave, respondents living in highly urban and highly rural areas are slightly under-represented, which corresponds with the under-representation of respondents living in the western (highly urbanized) and eastern (rural) regions of the Netherlands. In the second wave, only respondents living in the highly urbanized western region were under-represented. For our study on intergenerational transfers and gendered labour patterns the representativity of the main respondent samples in both waves poses no severe problems. The only feature that should be taken into account when reading chapters Two to four is that young men are somewhat under-represented, which may have lead to a somewhat lower variation in men's characteristics in the presented analyses compared to the variation among men in the Dutch population.

1.5. Overview of chapters

This study addresses intergenerational transfers that can have an impact on men's and women's patterns of paid and unpaid labour. In the first two chapters of this study we address intergenerational transfers in childhood. In chapter 2 we study the impact of behavioural role modelling, by exploring the relationship between women's and men's contributions to housework and childcare on the

one hand and their parents' contributions to housework and childcare during childhood on the other hand. In chapter 3 we study the impact of behavioural role modelling and resource transfers, by exploring the relationship between women's labour force participation and work-hours and their mothers' labour force participation in childhood. In chapters 4 and 5 we address inter-generational transfers of instrumental support in adulthood. In chapter 4 we explore the extent to which the labour force participation and work-hours of parents of young children are supported by grandparents who help out with housework and childcare. In chapter 5 we study the interdependency between middle-aged women's and men's work-hours and their provision of instrumental support to elderly parents in a simultaneous model. We explicitly take into account that this interdependency may be influenced by the activities of partners and co-resident children. In the final chapter we provide an overview of the entire study. We summarize the findings and discuss the main contributions to research, policy implications and suggestions for future research.

2. On a beaten track: The influence of the parental role model in childhood on men's and women's contributions to housework and childcare[4]

2.1. Abstract

Employing data from a sample of 3,344 men and women with a partner in the 2006-2007 wave of the Netherlands Kinship Panel Study, our analyses suggest that men and women partly model their contributions to housework on their parents' division of housework in childhood. We studied both routine chores such as cooking and cleaning, and occasional chores such as paying bills and maintenance. We find that women's contribution to routine housework is larger and men's contribution is smaller, the larger their mothers' contribution was to these chores and the smaller their fathers' contribution. We find a similar pattern with respect to occasional housework. The findings underline the importance of early life course trajectories and of intergenerational relationships to understand gendered behavioural patterns. We find no empirical support for the parental role modelling of men's and women's contributions to childcare.

2.2. Introduction

In developed countries, women's larger investment in housework and childcare than men's, especially after the birth of their children, is widely recognized as one of the prime causes of the gender gaps in labour market participation and work-hours, occupational status, and income, (e.g. Adema, 2002; Blossfeld and Drobnic, 2001; Powers, 2003) and consequently as an indirect cause of the gender gap in political and economic representation (Kenworthy and Malami, 1999). Men's small time investment in housework and childcare also increases marital conflict (Pina and Bengtson, 1993), delays second births and stimulates divorce (Prince Cook, 2004). Furthermore, housework has a negative influence on well-being (Glass and Fujimoto, 1994), especially when is it is perceived as distributed inequitably and when men and women experience an overload of

[4] The paper on which this chapter is based is co-authored by Pearl A. Dykstra and Joop J. Schippers, and is currently under review at an international journal. An earlier version of this chapter was presented at the conference *Dag van de Sociologie 2008*, Leuven (29th May 2008).

paid work, child care and housework (MacDonald, Philips, and Lethbridge, 2005).

Three major explanations for the gendered division of unpaid work emerge from the literature, namely gender roles, relative resources, and time budget restrictions (Bianchi, Milkie, Sayer, and Robinson, 2000; Coltrane, 2000). These explanations focus primarily on individual differences between men and women, notably in gender role attitudes (Cunningham, 2005), education (Van Der Lippe, 1994), income (Bittman, England, Folbre, Sayer, and Matheson, 2003; Brayfield, 1992), occupational history and work-hours (Cunningham, 2007), and on the within-couple distribution of individual resources (Brines, 1994). Moreover, various studies have pointed at the ways in which marriage (Davis, Greenstein, and Gerteisen Marks, 2007), and presence and number of children (Sanchez and Thomson, 1997) stimulate women's participation in housework, but decrease men's.

In comparison to these conventional explanations, the influence of men's and women's early life course trajectories on their performance of housework has received little attention. Yet there is growing empirical evidence that the role model provided by parents in childhood provides an additional explanation for the gendered division of housework (Cunningham, Beutel, Barber, and Thornton, 2005; Denuwelaere, 2003; Penha-Lopes, 2006). Particularly relevant is that two studies in the USA showed that men contribute more to routine housework in adulthood, when their mothers were employed in childhood (Gupta, 2006a), and when their fathers' contribution to routine housework was large (Cunningham, 2001b).

In the present chapter we attempt to build forth on these pioneering studies by answering the following research question: To what extent do adult men's and women's contributions to routine housework, occasional housework and childcare depend on their parents' contributions to housework and childcare in childhood? We use data of 3,339 men and women with a partner in the 2006-2007 wave of the Netherlands Kinship Panel Study. These respondents provided information on their own and their partner's contributions to housework and childcare and on their parents' contributions to housework and childcare when the respondents were about 15 years old.

2.3. Contributions to the literature

The present chapter aims to contribute to this literature in three ways. Firstly, we do not focus exclusively on the often-studied routine housework such as cleaning and cooking, but also address occasional housework such as paying bills, and maintenance work. This is relevant because women are known to do most of the daily and time-intensive routine housework whereas men do most occasional housework, which requires less frequent time investments (Bianchi *et al*., 2000; Blair and Lichter, 1991; Coltrane, 2000). The literature's strong focus on routine housework has resulted in limited knowledge about the determinants of doing *occasional* housework, and consequently, in limited knowledge about the determinants of *men's* contributions to housework. In distinguishing these two types of housework for both adults and their parents, we can assess whether they are subject to similar intergenerational reproduction patterns, and to what extent the determinants of men's and women's contributions to housework differ.

Our second contribution to the literature is that we address the influence of parental role models on men's and women's contributions to *childcare*, whereas previous studies have focused exclusively on routine housework. In this chapter we want to explore to what extent men's and women's contributions to childcare are subject to parental role modelling and to what extent such intergenerational reproduction patterns —if found— differ from the reproduction of housework.
Finally, we study intergenerational reproduction patterns in the Netherlands, whereas previous studies were based on respondents in the USA. The Dutch case provides a cross-validation of previous findings in a different cultural context and in a more extensive welfare state than the USA.

2.4. Theoretical framework

2.4.1. Parental role modelling of contributions to housework and childcare

Behavioural role modelling addresses the reproduction of behaviours across generations. Its mechanism entails that individuals model their behaviour on the behaviour of a significant person, a role model (Bandura, 1977; Mischel, 1966). In other words: Role models offer scripts for behaviour in particular contexts (Gupta, 2006a). The behaviour of parents during childhood is considered to be an important determinant of gendered behaviour throughout the life course because individuals first learn about proper behaviours in childhood and parents

generally function as the primary child-raisers (Bandura, 1977; Cunningham, 2001a; De Valk, 2004; Denuwelaere, 2003; Witt, 1997).

Little empirical research has been published on the extent to which parents function as role models when it comes to housework. In a local sample of American married men and women, men's contribution to routine housework at age 31 was larger, the larger their fathers' contribution was when the men were one year old (Cunningham, 2001b). Women's contribution to routine housework at age 31 was not affected by their parents' early housework division. Instead, women contributed less to routine housework at age 31 when their mothers participated in the labour force at age one. Notably, the parents' contributions to routine housework at age 15 did not affect men's and women's contributions to housework at age 31, nor did the mother's employment at age 15. This suggests that the parental role model in early infancy has more impact on men's and women's housework division than in adolescence. This is puzzling because we do not expect role modelling to take place at age one. Provided the housework division between parents does not change much during the childhood of their children, the measurement at age one possibly functions as a proxy for the parental housework division later on in infancy, when children better capture their parents' housework division and can copy their behaviour. Moreover, given that a substantial share of mothers may have returned to employment or increased their work-hours during their child's early teens after a period of (partial) labour force withdrawal, the measurements at age 15 possibly also lack impact because they cannot distinguish between mothers who have worked continuously throughout their child's childhood and mothers who have interrupted or scaled back employment. This distinction is relevant because mothers who worked continuously throughout the respondent's childhood are likely to have contributed less to housework than mothers who interrupted their careers.

In his national sample of American men, Gupta found empirical confirmation of parental role modelling too (Gupta, 2006a). Men spent more time on routine housework when their mothers participated in the labour market before men's 17th birthday. Gupta's findings also suggest that parental role modelling is more influential before men's sixth birthday than afterwards, because the mother's employment in the period when the men were between 6 and 17 years old appeared to have no impact.

Penha-Lopes' qualitative interview study among 45 black fathers of minor children in an urban area also provides evidence that men model their contributions to both routine and occasional housework onto the example of their fathers (Penha-Lopes, 2006). Several of the men who shared housework equally with their partners explicitly stated their fathers' early involvement in housework to be their example, both in terms of taking part and in terms of how they performed specific chores.

Note that whereas Penha-Lopes addressed both routine and occasional housework, Cunningham and Gupta's studies focused exclusively on routine housework. However, Penha-Lopes' findings and various quantitative American and European studies on the sex-typing of children's contributions to housework provide empirical evidence that parental role modelling of *occasional* housework takes place too. Girls are more likely to do routine chores and boys to do occasional chores when parents divide the housework gender-stereotypically themselves (Blair, 1992; Denuwelaere, 2003; Gager, Cooney, and Call, 1999).

We do not know of any studies addressing parental role modelling with regard to men's and women's contributions to childcare. Yet, it is likely that men and women model their contributions to childcare onto their parents' example. Akin to housework, the provision of childcare is largely a gendered activity with women overall spending more time on childcare than men, and although the gender segregation of specific childcare tasks is poorly documented, it has been suggested that women also do more routine childcare tasks such as feeding and bathing, whereas men do more occasional activities such as playing together (Ishii-Kuntz and Coltrane, 1992; Shelton, 1990). Men's and women's contributions to childcare lend themselves well to role modelling. From the perspective of the adult child, the birth of children can trigger memories of one's own childhood and of the way in which one was raised. From the perspective of the parents, the birth of grandchildren can stimulate the recall and communication of memories of how they used to raise their children in the past, and transmission of their opinions about parenting and childcare. The provision of childcare by grandparents particularly intensifies contact between the generations and entails that parents actively intervene in their children's time spent on childcare.

Yet, childcare is less likely to be subject to parental role modelling than housework. In contrast to having children, housework is seldom wished and

deliberately chosen for, resulting in a stronger intrinsic motivation to provide childcare than to do housework. Moreover, the risks and costs of foregoing childcare are much higher than of foregoing housework, and childcare's utility is higher (Bulanda, 2004; Sundström and Duvander, 2002). The social rewards of parenting for mothers and fathers, the receipt of affection, and —at later ages— support from a child result in childcare producing more profound and longer lasting revenues than the relatively short-lived pleasure of a clean house. Given the importance of motivation, risk and utility, parental role modelling is less likely to influence men's and women's contributions to childcare than their contributions to housework.

Based on the principle of behavioural role modelling, we have formulated the following three hypotheses. Firstly, we expect that the larger the mother's contribution was to routine housework in childhood, and the smaller the father's, the larger women's current contribution is to routine housework, and the smaller men's (*hypothesis 1*). Secondly, we expect that the larger the mother's contribution was to occasional housework in childhood, and the smaller the father's, the larger women's current contribution is to occasional housework, and the smaller men's (*hypothesis 2*). Thirdly, we expect that the larger the mother's contribution was to childcare, and the smaller the father's, the larger women's current contribution is to childcare, and the smaller men's (*hypothesis 3*).

2.4.2. Impact of early parental home context

In addition to their parents' housework division, it is likely that contributions to housework are influenced by other parental characteristics in childhood, such as parents' gender-role norms, the mother's labour force participation, parental divorce, and parents' social-economic status. Previous studies on the role modelling of housework have controlled for the transmission of gender role attitudes in the parental home and for mother's employment, but only partially for parents' socio-economic status and not at all for parental divorce (Cunningham, 2001b; Gupta, 2006a). Yet it is likely that all of these early life course characteristics influence men's and women's contributions to housework and childcare, and consequently it is important to control for them to prevent an overestimation of the unique relationship between parents' and children's contributions to housework.

Firstly, men and women tend to have more egalitarian gender-role attitudes in late adolescence and adulthood when their mothers held egalitarian gender-role

attitudes in early infancy and mid-adolescence (Cunningham, 2001a). Although the relationship between gender-role attitudes and contributions to housework is somewhat contested (Coltrane, 2000), several studies suggest that those with egalitarian beliefs contribute more equally to housework (Cunningham, 2005; Kamo, 1994). Secondly, early maternal employment tends to decrease women's contribution to routine housework (Cunningham, 2001b), and increases men's time spent on routine housework (Gupta, 2006a). Thirdly, parental divorce is likely to stimulate women's labour force participation and consequently to decrease women's contributions to housework and childcare, as it alerts women to the risks of financial dependency on a partner. Parental divorce is likely to stimulate men's participation in housework because children in single parent households tend to do more housework than children in dual parent households (Gager *et al*., 1999) and early involvement in housework stimulates adult men's contributions to housework (Penha-Lopes, 2006). Finally, men and women are more likely to have a high educational level and income, when their parents had a high social-economic status too (e.g. Goldthorpe, 1987; Kalmijn, 1994; Korupp, 2000), and current social-economic status affects contributions to housework. Among women, education and (relative) income decrease their contributions to routine housework (e.g. Bianchi *et al*., 2000; Brines, 1994), except when women earn more than their husbands (Bittman *et al*., 2003). Among men, education *in*creases but income *de*creases contributions to routine housework (Bianchi *et al*., 2000; Brines, 1994; Presser, 1994).

2.4.3. Conventional explanations of housework and childcare division

To find out whether parental role modelling provides an additional explanation to the conventional explanations for the gendered division of housework, namely gender roles, relative resources, and time budget restrictions (Bianchi *et al*., 2000; Blossfeld and Drobnic, 2001; Coltrane, 2000), we also consider the latter. Firstly, according to the gender roles perspective men and women internalize beliefs that men's primary role is to provide income for their families, and that women's primary role is to take care of their families and households (Burt and Scott, 2002; Cunningham, 2001a). Additionally, the theory of symbolic interactionism or 'doing gender' poses that men and women express their gender identities through the performance of housework (Berk, 1985; West and Zimmerman, 1987). Multiple empirical studies confirm that the less egalitarian men's and women's gender-role attitudes are, the larger women's contributions to routine housework are, and the smaller men's (e.g. Bianchi *et al*., 2000; Cunningham, 2005).

Due to the literature's focus on routine housework, little is known about the influence of gender role attitudes on contributions to *occasional* housework. Yet the housework literature suggests that occasional housework characterizes as a stereotypically masculine activity, given that men perform most occasional chores (Blair and Lichter, 1991). If occasional housework indeed functions as an avenue for men to express their masculinity, it is likely that men contribute less, and women more, to occasional housework the more egalitarian their gender-role attitudes are. Regarding the relationship between gender role beliefs and contributions to childcare, Bulanda (2004) has shown that men with egalitarian gender role attitudes spend more time on activities with their children and also do more kinds of activities compared to men with traditional attitudes.

Secondly, the literature on relative resources embodies multiple rationalist views on the gendered division of routine housework (Brines, 1993; Coltrane, 2000).The resource-bargaining perspective predicts that neither men nor women want to do housework, and that the partner with most bargaining power ends up doing least (Blossfeld and Drobnic, 2001; Brines, 1994). Bargaining power depends on resources, most importantly income. Another rationalist perspective, Becker's new home economics draws from human capital theory in predicting that the partner with the highest (expected) revenues from paid work specializes in market labour whereas the partner who is best equipped to do unpaid labour specializes in housework and childcare (Becker, 1985).

Neither the resource-bargaining nor the new home economics perspective specifies whether it only applies to routine housework or also to occasional housework. Empirical studies focus on routine housework, confirming that men's and women's contributions to routine housework decrease as their (relative) incomes and potential wage rates increase (e.g. Bianchi *et al*., 2000; Gupta, 2006b; Hersch and Stratton, 2002). The assumption that nobody wants to do housework is likely to apply more strongly to routine housework than to occasional housework, given that routine housework requires larger time investments, requires more repetition and thus yields lower utility, and fits less easily into a working schedule. For the same reasons, routine housework is more likely to conflict with paid work. Consequently, it is likely that relative resources have a greater impact on contributions to routine housework than on occasional housework.

Regarding the implications of relative resources for contributions to childcare, the new home economics perspective clearly predicts that the partner with the

highest income spends least time on childcare —men and women alike. The relative resources perspective refers to housework, not childcare, because most parents prefer to perform childcare themselves if circumstances allow it—although studies suggest that women have stronger preferences for providing childcare than men, and that men have stronger preferences than women for the social aspects of childcare such as playing together, rather than the menial activities such as changing diapers (Kroska, 2003; Pool and Lucassen, 2005). Consequently, relative resources are likely to have a stronger impact on contributions to housework than on contributions to childcare, and a stronger impact on men's contributions to childcare than on women's.

Thirdly, according to the notion of time budget restrictions men's and women's contributions to housework and childcare are determined on the one hand by the amount of housework and childcare that needs to be done for a household to function, and on the other hand by the supply of household and childcare 'personnel' and by restrictions on the available time (Bianchi *et al*., 2000). Time spent in the labour market decreases time spent on paid work, yet paid work and housework do not form a zero-sum relationship given that women's large contributions to routine housework do not match the gender differences in work-hours, especially not in countries with a large proportion of full-time working women such as the USA and Canada (Bianchi *et al*., 2000). A strict application of the time budget perspective would predict that work-hours similarly diminish men's and women's contributions to routine housework, occasional housework and childcare. However, because men and women are likely to have stronger preferences for performing childcare than for doing housework, and because the utility derived from childcare tends to be higher, it is likely that time budget restrictions have a stronger impact on men's and women's contributions to routine and occasional housework than on their contributions to childcare. Furthermore, the larger the number of children and other household members is, the larger the required amount of housework and childcare becomes, with infant children requiring particularly intensive care (e.g. Pittman and Blanchard, 1996). Services such as domestic help and non-parental childcare expand individual time budgets by reducing the amount of housework and childcare (De Ruijter, 2005).

Finally, although an explicit theoretical underpinning is seldom provided, most studies on housework control for respondent's marital status and age in their empirical analyses. The unmarried and those belonging to more recent birth

cohorts tend to have more egalitarian gender role attitudes, which is likely to increase men's and decrease women's contributions to routine housework.

2.5. Methods

2.5.1. Sample

We analyzed data from the second wave of the Netherlands Kinship Panel Study (NKPS), a national survey on family-relationships, collected from 2006 to 2007 (Dykstra *et al*., 2007). The data are based on a random address sample of individuals living in private households in the Netherlands. The overall response rate of the first wave was 45 per cent, which is similar to the average response rates of other large scale family surveys in the Netherlands (De Graaf, De Graaf, Kraaykamp, and Ultee, 1998; Ultee and Ganzeboom, 1992). The response rate of primary respondents in the second wave data is 75 per cent and concerns 6,026 respondents (2,453 men and 3,573 women). We selected 3,339 primary respondents who live with an opposite-sex partner (1,427 men and 1,912 women). For the analyses on the division of childcare we selected 645 respondents (242 men, 403 women) who live with an opposite-sex partner and at least one co-resident child younger than six years. The data were collected by means of face to face computer assisted interviews and drop-off self-completion questionnaires. Valid self-completion questionnaire data were obtained for 95 per cent of primary respondents.

2.5.2. Measures

We used six measures of respondents' and their parents' contributions to housework and childcare, of which three serve as dependent variables (*table 2.1*). All six measures stem from the self-administered questionnaire. Each measure reflects the mean sum-score of multiple items with Likert-type answering categories, centered around zero and ranging from -2 (partner does all) to 2 (respondent does all), or -2 (father does all) to 2 (mother does all). Our measure of routine housework is based on the question 'How would you describe the division of household tasks between you and your partner? Please indicate, for each of these tasks, who usually does them', and the items 'preparing meals', 'fetching groceries', 'tidying and cleaning', and 'laundry and ironing'. Our measure of occasional housework is based on the items 'paper work, accounts, finances', and 'odd jobs in and around the house'. The measure of childcare is based on the question 'How do you and your partner divide child rearing tasks?' with the items 'bath your children, help them get dressed', 'stay at home when child is ill, get out of bed at night', 'talk about the child's

problems or about rules of politeness', and 'take the children to school, day care or babysitter'. Positive coefficients can be interpreted as 'the higher (independent variable), the larger (respondent's/mother's) contribution to housework/childcare', and vice versa for negative coefficients.

Given that the literature on housework is ambivalent about whether to study contributions to housework or absolute time spent on housework, or both (Coltrane, 2000; Kamo, 2000), we have run additional analyses with the *absolute time* spent on routine and occasional housework as the dependent variable, also based on items in the self-administered questionnaire. Given that the outcomes of these analyses strongly resembled the outcomes of the analyses on contributions to housework, we do not present the results. A measure of absolute time spent on childcare was not available.

Our focal independent variables are two indicators of parents' contributions to routine and occasional housework and one indicator of parents' contributions to childcare during the respondent's childhood. We based the two housework indicators on the question 'How did your parents divide the household tasks when you were about 15 years old?', using identically phrased items as for the respondent's routine and occasional housework indicators. We based the measure of the parents' contributions to childcare on the items: 'Talking about school, helping with homework, etcetera', 'talking about personal matters', and 'visiting friends or family with you'. Responses to an additional 'not applicable' answering category were interpreted as missing.

We included whether the respondent is married, and respondent's age. As an indicator of egalitarian gender-role attitudes we included the reversed mean sum-score of four items such as 'A woman must quit her job when she becomes a mother' (Alpha men 0.76, women: 0.77). We controlled for the influence of relative resources and time budget restrictions as follows. We calculated three ratio variables, expressing the woman's (either respondent or partner, depending on the sub-sample) effective years of schooling, net income and work-hours, respectively, as a percentage of the sum of her and her partner's effective years of schooling, net income, and weekly work-hours, respectively. Additionally, we included the respondent's effective years of schooling, logged net income, and weekly work-hours, and a dichotomous indicator for couples in which both partners are without work, as these —mostly retired— couples (N=621)

Table 2.1. Unweighted means, percentages and ranges, men (N=1,427) and women (N=1,912) living with their partner

	Men				Women			
Dependent variables	*Mean*	*SD*	*Range*		*Mean*	*SD*	*Range*	
Contribution to routine housework	-0.84	0.70	-2.00	2.00	1.07	0.67	-1.50	2.00
Contribution to occasional housework	0.76	0.84	-2.00	2.00	-0.25	0.89	-2.00	2.00
Contribution to childcare [a]	-0.38	0.43	-1.50	0.75	0.58	0.54	-1.00	2.00
Independent variables								
Parental role model								
Mother's contribution to routine housework	1.59	0.63	-2.00	2.00	1.64	0.60	-2.00	2.00
Mother's contribution to occasional housework	-0.70	1.09	-2.00	2.00	-0.45	1.16	-2.00	2.00
Mother's contribution to childcare [a]	0.29	0.63	-2.00	2.00	0.54	0.67	-2.00	2.00
Conventional explanations								
Age	50.79	13.13	21.00	83.00	46.57	12.54	21.00	82.00
Married	85%	0.36	0.00	1.00	83%	0.37	0.00	1.00
Egalitarian gender role attitudes	4.03	0.71	1.25	5.00	4.28	0.65	1.75	5.00
Relative resources								
Woman's education years in % of couple's	47.77	6.87	23.08	75.00	49.38	6.85	26.09	73.91
Education years	12.56	3.54	5.00	20.00	11.76	3.23	5.00	20.00
Woman's income in % of couple's	28.61	20.39	0.00	100.00	32.28	20.70	0.00	100.00
Income (logged)	7.27	1.50	0.00	10.46	5.70	2.66	0.00	11.02
Woman's weekly work-hours in % of couple's	37.15	24.12	0.00	100.00	37.60	24.67	0.00	100.00
Weekly work-hours	29.53	20.01	0.00	60.00	16.97	14.65	0.00	60.00
Neither partner has paid work	22%	0.41	0.00	1.00	17%	0.37	0.00	1.00
Time budget restrictions								
Number of children	2.03	1.26	0.00	11.00	2.01	1.26	0.00	10.00
Childless	14%	0.35	0.00	1.00	14%	0.35	0.00	1.00
Has children <= three years [ab]	69%	0.46	0.00	1.00	70%	0.46	0.00	1.00
Has children <= six years	21%	0.41	0.00	1.00	25%	0.43	0.00	1.00
Has children > six years	65%	0.48	0.00	1.00	61%	0.49	0.00	1.00
Uses paid household help	19%	0.39	0.00	1.00	25%	0.43	0.00	1.00
Uses paid childcare [a]	49%	0.50	0.00	1.00	53%	0.50	0.00	1.00

Early life course								
Father's education years	9.37	3.39	5.00	20.00	9.49	3.55	5.00	20.00
Mother worked	16%	0.36	0.00	1.00	20%	0.40	0.00	1.00
Importance religion	2.99	1.22	1.00	5.00	2.90	1.23	1.00	5.00
Parents ever divorced	7%	0.26	0.00	1.00	9%	0.29	0.00	1.00

[a] Due to sample restrictions, the number of observations on these variables are, for men: 242, for women: 403.

[b] The dichotomous indicator *has children younger than three* years only applies to the sample of men and women with a co-resident partner and co-resident child aged younger than six years and thus is not mutually exclusive with the dichotomous indicators *having children <six, having children >= six,* and *childless*.

received a score of 50 per cent on the work-hour ratio variable. Furthermore, we included the number and age of living children related to respondent and/or partner, the respondent's contribution to routine housework and occasional housework (where appropriate), and the use of paid domestic help. In the models of childcare we also included the use of paid childcare. Note that we imputed missing values on all conventional predictors with mean scores, stratified according to the respondent's sex, age, and level of education.

Given the importance of early life course characteristics, we included the following characteristics pertaining to the period until the respondent was 15 years old, recorded in the first wave data (Dykstra *et al*., 2005). As an indicator for early gender role beliefs we included the extent to which issues related to religion and the church were considered important in the parental home. As a control for socio-economic status we included the father's effective years of schooling. We also included the dichotomous indicators whether the mother had paid work, and whether the parents ever got divorced.

With the dependence of parental role modelling on men's and women's current life course statuses emerging as a promising theme from two previous studies on this subject (Cunningham, 2001b; Gupta, 2006a), we computed four sets of interaction terms to determine to what extent the impact of the parental role model on men's and women's current contributions to housework and childcare depends on their current life course status. With these interaction terms we aimed to test whether the relationship between respondents' and parents' housework and childcare division is stronger a) for married respondents compared to unmarried cohabiters, b) for those with children of their own compared to childless respondents, c) for respondents from more recent birth cohorts compared to those from older birth cohorts, and d) for lower educated respondents than for higher educated respondents. However, because none of these interaction terms appeared significant in the analyses we do not further explain how we constructed them, do not present the models containing the interaction terms and do not further discuss these models in the results section.

2.5.3. Models

We built our OLS regression models in three steps. In the first step, we included one indicator of the parental task-division in the respondent's childhood: Parents' contributions to routine housework, to occasional housework or to childcare. In the second step we added indicators of the conventional explanations for contributions to housework, namely age, gender roles, relative

resources, and time budget restrictions. We assessed to what extent the inclusion of these conventional control variables decreased the impact (if any) of the early parental role model. In the third step we added several early life course characteristics, to correct for the possibility that the relationship between the parents' early task-division and the respondent's present task-division partly reflected the influence of other characteristics of the parental home rather than an independent effect of the parents' early task-division.

Finally, we ran separate analyses for men and women because we could not rule out that the parental home background affected men's selection of a partner differently than women's. Given that we only had information about the parental home context of our main respondents but not of their partners, we could not control for the influence of the parental home context of these partners. Consequently, the regression equations predicting the housework and childcare division within a couple possibly differed for couples in which the man was our main respondent and couples in which the woman was our main respondent. Joint analysis of the reports of male and female respondents would fail to take into account these potential sex-differences in dependency patterns. The results section below will show that these patterns indeed differ for male and female main respondents.

2.6. Results

2.6.1. Parental role modelling of contributions to routine housework

In line with our first hypothesis, we find a robust relationship between men's and women's contributions to routine housework and their parents' division of routine housework (*table 2.2*). This applies both to men reporting on their housework division with their partners as to women's reports. The larger their mother's contribution was to cooking, cleaning, grocery shopping and laundry, the larger is women's contribution to these tasks, and the smaller is men's. Although the relationship weakens somewhat when control variables for conventional explanations are added to the model, the decrease is small. The relationship decreases negligibly when we add controls for early life course context. In a supplementary analysis (results not shown) we found that men's and women's contributions to routine housework were not influenced by their parents' contributions to occasional housework or childcare. This suggests that behavioural role modelling is specific to the type of behaviour involved — in this case, routine housework.

Table 2.2. Unstandardized OLS regression coefficients of contributions to routine housework, men (N=1,427) and women (N=1,912) with a co-resident partner

	Men			Women		
Parental role model	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Mother's contribution to routine housework	- 0.151 **	- 0.124 **	- 0.123 **	0.178 **	0.122 **	0.119 **
Conventional explanations						
Age		- 0.002	- 0.001		0.002	0.001
Married (1=yes)		- 0.127 *	- 0.116 *		0.072	0.050
Gender-role egalitarianism		0.072 **	0.070 **		- 0.076 **	- 0.074 **
Relative resources						
Woman's education years in % of couple's		0.010 **	0.010 **		- 0.001	- 0.001
Education years		0.023 **	0.023 **		- 0.024 **	- 0.025 **
Woman's income in % of couple's		0.007 **	0.007 **		- 0.003 **	- 0.003 **
Income (logged)		- 0.001	- 0.001		0.004	0.004
Time budget restrictions						
Woman's work-hours in % of couple's		0.003 *	0.003 *		- 0.004 **	- 0.004 **
Work-hours		- 0.007 **	- 0.007 **		- 0.009 **	- 0.008 **
Neither partner has paid work (1=yes)		- 0.207 **	- 0.203 **		- 0.179 **	- 0.168 **
Number of children		- 0.028	- 0.025		0.018	0.013
Age of youngest child *ref. childless*						
Child ≤ six years (1=yes)		- 0.019	- 0.026		0.103	0.117 *
Child > six years (1=yes)		- 0.089	- 0.094		0.136 *	0.149 **
Contribution to occasional housework		- 0.008	- 0.007		0.082 **	0.082 **
Uses paid household help (1=yes)		0.149 **	0.147 **		- 0.015	- 0.013
Early life course						
Education years father			0.001			- 0.001
Mother worked (1=yes)			0.017			- 0.035
Importance religion			- 0.018			0.026 *
Parents divorced (1=yes)			0.068			- 0.129 **
Model						
Constant	- 0.599 **	- 1.456 **	- 1.434 **	0.777 **	1.663 **	1.676 **
Adjusted R-squared	0.02	0.22	0.22	0.02	0.26	0.26

* $0.01 < p \leq 0.05$ ** $p \leq 0.01$.

The results support the conventional explanations for contributions to routine housework, indicated by substantial increases in the model's total explained variance between the first and second models. The patterns reported by men and women partly mirror each other. Women contribute less, and men more, the more egalitarian their attitudes towards gender-roles are, the higher the respondent's schooling years, the higher women's income as compared to men's, and the more hours women work compared to men. Respondent's work-hours and neither partner having paid work (predominantly due to retirement) decrease both men's and women's contributions to housework.

Some characteristics affect men's contributions without affecting women's contributions to routine housework, and vice versa. Married men contribute less than cohabiting men, and men contribute more the longer women's schooling trajectory is compared to men's and when paid domestic help is hired, whereas marriage, relative education, and paid domestic help do not affect women's contributions to routine housework. Women's contribution to routine housework is larger when they have children older than six years compared to having no children, the larger their contribution to occasional housework is, and the more important religion was in the parental home. We also find women's contribution to routine housework to be smaller when their parents ever got divorced. Men's contribution does not depend on these factors.

2.6.2. Parental role modelling of contributions to occasional housework

In confirmation of our second hypothesis, we find that women's contribution to occasional housework is larger, and men's contribution smaller, the larger the mother's contribution to occasional housework was (*table 2.3*). The relationship is robust across models, decreasing only marginally when controls for conventional explanations are included, and remaining stable when controls for the early life course context are added.

In stark contrast to the models of routine housework, the conventional explanations appear to have surprisingly little impact on contributions to occasional housework, especially among men. This is underlined by the low total explained variance of the models, compared to our models of routine housework (table 2.2). The only other determinant of men's contribution to occasional housework besides the parents' contributions to occasional housework in childhood is relative education. The longer their partners are educated in comparison to their own schooling trajectory, the less men

Table 2.3. Unstandardized OLS regression coefficients of contributions to occasional housework, men (N=1,427) and women (N=1,912) with a co-resident partner

	Men			Women		
Parental role model	**Model 1**	**Model 2**	**Model 3**	**Model 1**	**Model 2**	**Model 3**
Mother's contribution to routine housework	- 0.115 **	- 0.108 **	- 0.110 **	0.085 **	0.071 **	0.072 **
Conventional explanations						
Age		0.004	0.004		- 0.002	- 0.001
Married (1=yes)		0.082	0.081		- 0.137 *	- 0.132 *
Gender-role egalitarianism		- 0.027	- 0.027		0.007	0.005
Relative resources						
Woman's education years in % of couple's		- 0.012 **	- 0.011 **		0.022 **	0.022 **
Education years		0.013	0.014		- 0.023 **	- 0.025 **
Woman's income in % of couple's		- 0.001	- 0.001		0.005 **	0.005 **
Income (logged)		- 0.016	- 0.016		- 0.016	- 0.016
Time budget restrictions						
Woman's work-hours in % of couple's		- 0.001	- 0.001		- 0.002	- 0.002
Work-hours		- 0.001	- 0.001		0.004	0.004
Neither partner has paid work (1=yes)		0.112	0.113		- 0.040	- 0.042
Number of children		0.029	0.027		- 0.012	- 0.012
Age of youngest child *ref. childless*						
Child ≤ six years (1=yes)		0.024	0.027		- 0.134	- 0.135
Child > six years (1=yes)		- 0.088	- 0.086		- 0.062	- 0.060
Contribution to routine housework		- 0.024	- 0.024		0.183 **	0.184 **
Uses paid household help (1=yes)		0.067	0.069		0.021	0.020

Early life course																			
Education years father							-	0.002									0.005		
Mother worked (1=yes)							-	0.014									0.028		
Importance religion								0.008								-	0.007		
Parents divorced (1=yes)								0.061								-	0.016		
Model																			
Constant	0.679	**	1.046	**	1.026	**	-	0.211	**	-	1.026	**	-	1.064	**				
Adjusted R-squared	0.02		0.05		0.05			0.01			0.07			0.06					

* $0.01 < p \leq 0.05$ ** $p \leq 0.01$.

contribute to occasional housework. Among women we find the reverse relationship. As we will explain in the discussion section, these education coefficients suggest that occasional housework is a stereotypically masculine task. Other results in our female sub-sample also suggest that we should interpret occasional housework as a stereotypically masculine activity. Married women do less occasional housework than unmarried cohabiting women, and women with relatively high incomes do more occasional housework than those with relatively low incomes.

In contradiction with this 'stereotypical masculinity' view, we also find that the higher women are educated, the less occasional housework they do. One interpretation is that whereas relative education refers to the power balance within a couple, absolute education refers to individual human capital. The higher women are educated, the more human capital they have, and the less housework they do, including occasional housework. To tease out more precisely what this negative coefficient of education years means we additionally looked into the bi-variate correlation between women's education years and their contributions to occasional housework, and this correlation turned out to be positive. Thus, when we do not keep all other factors constant, we find that the higher women are educated, the more occasional housework they do — in line with the 'stereotypical masculinity' interpretation. Moreover, suspecting that absolute and relative education must be understood in conjunction, we included an interaction term between relative and absolute education. This interaction term was negative (though not significant) and the two main effects positive, indicating that the higher women are educated, the smaller the impact of their relative education on their contributions to occasional housework becomes.

Finally, we find that the more routine housework women do, the more occasional housework they do, which is in line with the model predicting routine housework (table 2.2). None of the early life course characteristics have any significant impact on men or women's contributions to occasional housework.

2.6.3. No parental role modelling of contributions to childcare

Counter to our third hypothesis, we find no relationship between the contributions to childcare of respondents and their parents in any of the models (*table 2.4*). Surprisingly few of the conventional determinants turn out to predict contributions to childcare, among both men and women. For both sexes we find that the more they contribute to routine and occasional housework, the more

they contribute to childcare. In fact, a comparison of standardised coefficients (not shown) suggests that the relatively strong impact of participation in routine housework is the prime cause of the rather high explained variance in the full regression models. This strong relationship is in line with previous research suggesting that men's participation in childcare and routine housework reinforce each other, because these activities are often combined (Ishii-Kuntz and Coltrane, 1992). Finally, in line with the time budget approach women's contributions to childcare are smaller, the more hours they work in comparison to their partners.

2.7. Discussion

2.7.1. Comparing intergenerational reproduction patterns in routine and occasional housework

The aim of the present study was fourfold. In the first place we set out to compare the intergenerational reproduction of occasional housework to the previously studied intergenerational reproduction of routine housework. The results suggest that men and women model their contributions of routine housework on their parents' contributions to routine housework, and that they model their contributions to occasional housework on their parents' contributions to occasional housework. Men's and women's contributions to each type of housework are larger, the larger their same-sex parent's contribution was to that type of housework. Supplementary analysis (results not shown) revealed that men's and women's contributions to routine housework were not influenced by their parents' contributions to occasional housework. This underlines that role modelling of housework is type-specific.

Furthermore we found that the conventional explanations for contributions to housework apply better to routine housework than to occasional housework, given that more control variables influence routine housework than occasional housework, especially among men. The lacking impact of conventional predictors on men's occasional housework seems to suggest that men perform occasional chores regardless of their background characteristics, whereas women's contributions depend on their marital status, relative resources, and contributions to routine housework.

Table 2.4. Unstandardized OLS regression coefficients of contributions to childcare, men (N=242) and women (N=403) with a co-resident partner and at least one child younger than six years

	Men			Women		
Parental role model	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Mother's contribution to childcare	0.030	0.004	0.003	0.078	0.027	0.027
Conventional explanations						
Age		0.003	0.004		0.011	0.011
Married (1=yes)		- 0.110	- 0.108		- 0.081	- 0.081
Gender-role egalitarianism		- 0.027	- 0.029		- 0.051	- 0.051
Relative resources						
Woman's education years in % of couple's		- 0.002	- 0.002		0.005	0.005
Education years		0.001	0.001		- 0.015	- 0.015
Woman's income in % of couple's		0.000	0.000		- 0.001	- 0.001
Income (logged)		0.008	0.007		- 0.006	- 0.006
Time budget restrictions						
Woman's work-hours in % of couple's		0.004	0.004		- 0.010 **	- 0.010 **
Work-hours		- 0.004	- 0.004		0.005	0.005
Neither partner has paid work (1=yes)		- 0.343	- 0.329		- 0.180	- 0.180
Number of children		0.004	0.006		0.004	0.004
Youngest child <4 years (1=yes)		0.045	0.045		- 0.066	- 0.066
Contribution to routine housework		0.225 **	0.223 **		0.272 **	0.272 **
Contribution to occasional housework		0.070 *	0.070 *		0.098 **	0.098 **
Uses paid household help (1=yes)		- 0.065	- 0.061		- 0.007	- 0.007
Uses paid childcare (1=yes)		0.040	0.042		- 0.095	- 0.095

Early life course						
Education years father		- 0.002			- 0.000	- 0.000
Mother worked (1=yes)		0.008			0.043	0.043
Importance religion		- 0.008			0.012	0.012
Parents divorced (1=yes)		0.001			- 0.054	- 0.054
Model						
Constant	- 0.383 **	- 0.133	- 0.113	0.533 **	0.491	0.491
Adjusted R-squared	0.00	0.20	0.19	0.01	0.39	0.39

* $0.01 < p \leq 0.05$ ** $p \leq 0.01$.

Moreover, we found several characteristics to influence contributions to routine housework in the opposite direction as contributions to occasional housework, and characteristics influencing men's contributions in the opposite direction as women's. For example, gender egalitarianism increased men's contributions to routine housework, but decreased women's. And women's relative education and income decreased their contributions to routine housework, whereas they increased women's contributions to occasional housework. These 'mirrored' patterns underline the gendered meaning of housework, suggesting that both men and women do more routine housework the more they characterize as stereotypically 'feminine' and that they do more occasional housework the more they characterize as stereotypically 'masculine', depending on their (relative) income, education, and work-hours. For example, when we understand occasional housework as a stereotypically masculine activity, and being the highest educated within a couple as corresponding with a stereotypical male role, it makes sense that the higher women are educated in comparison to their partners, the more occasional housework they do. The positive relationships between women's relative education and income on the one hand and their contributions to occasional housework on the other can also be understood within the relative resource framework. Taking into account that occasional housework forms the most attractive housework available in terms of time intensity, repetitiveness, and ease of fitting into a working schedule, it makes sense that those with most bargaining power get to do most of occasional housework and least of the routine chores.

2.7.2. Reproduction patterns in contributions to childcare

A second aim of this study was to explore to what extent men and women reproduce their parents' contributions to childcare. Contrary to our expectations, we found no confirmation of parental role modelling of childcare. This does not surprise us, given that motivation and utility importantly determine contributions to childcare. However, possibly affecting our results too is the difference in meaning between the measures of parental childcare and respondent's childcare, with the measure of the respondent's contributions to childcare referring more strongly to physical care and to care provided to young children than the measure of the parents' contributions to childcare. Future use of data with more convergent information on parental and respondent's contributions to childcare could shed more light on this issue.

Furthermore, in line with previous research (Deutsch and Mannino, 2007), few of the control variables derived from the conventional explanations for

housework and childcare turned out to affect men's and women's contributions to childcare, with significant effects only of relative work-hours (among women), and respondents' contributions to routine and occasional housework. The limited number of significant control effects in the analyses of childcare when compared to the analyses of routine housework suggests that the costs and revenues of contributing to these two different tasks balance out differently. As discussed in the theory section, we suspect that the stronger motivation to care for children compared to doing housework and the higher utility derived from childcare explains why time budget constraints and relative resources better explain contributions to housework than to childcare.

Men's contributions to childcare turned out to be somewhat lesser subject to conventional explanations than women's contributions, although the difference only concerned the impact of relative work-hours. Possibly the difference in social status derived from childcare (more status) compared to housework (less status) is larger among men than among women, which reduces the relevance of the conventional explanations for men's contributions to childcare.

2.7.3. Comparing intergenerational reproduction patterns in the Netherlands and the USA

Our third aim was to provide a cross-validation of previously found intergenerational reproduction patterns in both local and national samples of North-Americans by analyzing a sample in a different cultural context and welfare state regime, namely the Netherlands. Our finding that *men's* contributions to routine housework are larger, the larger their fathers' contributions were in childhood confirms previous findings (Cunningham, 2001b; Gupta, 2006a). In contrast to Cunningham, however, our results show a similar parental role modelling pattern among female respondents, namely that *women's* contributions to routine housework are larger, the larger their mothers' contributions were in childhood. Unlike Cunningham, we find no impact of the mother's labour force participation in childhood on women's contributions to housework. This suggests that in the Netherlands the parental division of housework has a larger impact on women's contributions to housework than the mother's labour force participation. This can be explained by the fact that historically, Dutch women's post-WWII labour market entry considerably lagged behind American women's (Morée, 1994; Pott-Buter, 1993). This leads to a lower likelihood of having been raised by a working mother in the Dutch population compared to the American population, and less variation in Dutch women's labour force participation than in their contributions to housework.

Consequently, any impact of the mothers' early behaviours in our Dutch sample is more likely to stem from their contributions to housework than from their labour market behaviour.

An alternative interpretation is that the patterns in our wide age sample differ substantially from the patterns found among Cunningham's sample of 31-year-olds. Possibly the impact of the mother's labour force participation decreases in the long run, whereas the impact of the parents' housework division has a stable influence on men's and women's contributions to housework. Moreover, Cunningham used a local sample whereas we used a national probability sample. Further analysis of intergenerational reproduction patterns in both wide and narrow samples of men and women, preferably in multiple countries, can help to tease out the role of sampling differences and country differences in this matter.

2.7.4. Suggestions for future research

When data allow for it, future research could improve on our understanding of gender differences in housework reproduction patterns by assessing whose parental role model has most impact on the division of housework within couples: Women's or men's. Given that our data did not include information on the labour division between the parents of the respondent's partner, we could not explore this question. In the presented analyses we could also not tease out whether women and men predominantly model their behaviour after their mother, their father, or both, given that the question on which we based the parental role model referred to the *division* of housework and childcare between mother and father. In view of the substantial and increasing number of parental separations and the associated reduced contact between children and their fathers (Cooney, 1994; Kalmijn, 2007), the extent of same- or cross-sex parental role modelling is relevant for understanding both men's and women's participation in housework. In fact, our results suggest that parental divorce decreases women's contributions to routine housework whereas it has no implications for men (table 2.2). Furthermore, future research could benefit from controlling for men's and women's contributions to routine and occasional housework in childhood, because parents' division of housework in childhood is likely to influence men's and women's contributions to housework partly via children's own experiences with doing housework during childhood, given the prevailing sex-typing of children's housework from very young ages onwards (Denuwelaere, 2003; Gager *et al*., 1999).

3. Just like mom? The intergenerational reproduction of women's paid work[5]

3.1. Abstract

Given the increasing female labour force participation rates in recent decades, the question arises as to whether the daughters of working mothers show different job patterns than the daughters of homemakers. Using data from a sample of 3169 adult women in the 2002-2004 wave of the Netherlands Kinship Panel Study, we find that women who were raised by a working mother work about two more hours per week than those raised by a homemaking mother. The likelihood that women are currently in the labour market is not affected by their mother's past labour force participation. Women's own educational achievement and the presence of children younger than 12 are the strongest determinants of their participation and work-hours. Our findings add to the growing evidence that parental behaviours during childhood have long-reaching consequences for children's behaviours, also in the realm of paid work. This provides a useful explanation for the persisting gender gap in work-hours across Europe, in addition to the conventional explanations of education, occupational history and family-formation.

3.2. Introduction

A persistent gender-stereotypic pattern characterizes the distribution of paid and unpaid labour in European and other developed countries. Despite the remarkable increase in women's labour market participation since the 1960s,

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especially among married women with children (Hartog and Theeuwes, 1985; Mincer, 1985; Pott-Buter, 1993), women's work-hours continue to lag behind those of men. This has been termed the 'part-time divide' (Rosenfeld and Birkelund, 1995; Fagan and Rubery, 1996). In the Netherlands the proportion of full-time working women of all women in the labour force is especially marginal, making the Dutch gender gap in work-hours the largest in Europe (SCP, 2000; Plantenga and Remery, 2006; European Commission, 2007). Dutch women's work-hours have not increased at all over time (Román *et al.*, 2007). The gender stereotypical labour division of the male breadwinner household has developed into the one-and-half earner household in which women continue to bear the prime responsibility for childcare and housework, and men for the provision of income (Den Dulk, 2001). Consequences are not only an income gap between men and women, but also a gender imbalance with regard to secure and long-term jobs, and representation at levels of governmental, judicial and economic decision-making (Reskin, 1993; De Ruijter *et al.*, 2003). With its comparatively large gender gap in work-hours, the Netherlands can be regarded as the prototypical example of the part-time divide in Europe.

The present chapter aims to move beyond conventional explanations of women's labour market behaviour by not only focusing on the importance of women's educational, occupational and family-formation histories, but by also including measures of their mother's past labour market behaviour. Despite the usefulness of education, occupation and childbirth in accounting for the rise in women's labour market *participation* across Europe (Drobnic, Blossfeld and Rohwer, 1999; Jansen and Kalmijn, 2002; Román *et al.*, 2007), these conventional explanations do not suffice when we want to explain why women's *work-hours* continue to be limited. As women today are less often married, give birth to fewer children and are higher educated than ever before (Van Nimwegen and Beets, 2006), they should be working *more* hours than previous generations. Yet recent work in the Netherlands shows that the work-hours of women aged 30-50 hardly vary across birth-cohorts (Román *et al.*, 2007). Women's work-hours also hardly vary with their educational level. Given that the conventional adagio 'education, occupation, and family-formation' accounts for only part of the variation in work-hours among women, we turn to another, supplementary, explanation for women's work-hours. More specifically, in view of the persisting gender differences in paid work over time we wonder whether the labour patterns of women are in part the product of an intergenerational reproduction process. The socialization literature has found relationships between the gender-role attitudes of mothers and daughters and

also showed that the maternal labour market behaviour can affect the future beliefs of children (e.g. Glass *et al.*, 1986; Moen *et al.*, 1997; Wrigth and Young, 1998; Cunningham, 2001a). In the stratification or social mobility literature, many studies have found that women's occupational status does not only depend on their own educational achievement but also on their mother's educational and occupational trajectories (e.g. Rosenfeld, 1978; Stevens and Boyd, 1980; Kalmijn, 1994; Aschaffenburg, 1995; Korupp, 2000). However, few studies have explored the question whether women's *work-hours* today can be traced back to their mother's past labour market participation. Perhaps there has not been enough variation among women previously regarding whether they were raised by a working mother or not. However, with the steady increase of married women's labour force participation since the 1960s, today's adults have grown up with a working mother on a larger scale than previous generations, and their number continues to increase. This allows us to compare the labour market behaviours of women who grew up with a working mother and those who did not.

In the present study we aim to contribute to the existing literature in three ways. Firstly, we combine explanations from the two distinct literatures on socialization and stratification. This can be regarded as a contribution to both literatures, especially to the literature on stratification, which is marked by a strong emphasis on empirical findings. The combination of perspectives also allows for a more inclusive analytical approach. Unlike stratification studies, we control for demographic characteristics such as partner-relationship and age of children in our models, and unlike socialization studies we control for employment history. Secondly, we contribute to the socialization literature, specifically in the area of behavioural role modelling, by focusing on mother's and daughter's labour market *behaviour* rather than attitudes. To the stratification literature we add insight into the importance of mother's labour force participation for women's *work-hours*, rather than women's occupational status. Finally, we employ a more recent and inclusive sample of women in our analyses than previous work has done, which allows us to separate parental home and demographic career effects.

3.3. Research question

The central research question we address in this chapter is: To what extent do daughters who were raised by working mothers work more hours in adulthood than daughters of homemaking mothers? We ground this question in two

distinct empirical literatures, namely the literature on socialization, and the literature on stratification. The analyses are based on the first wave of the Netherlands Kinship Panel Study (NKPS), a nationally representative survey held between October 2002 and December 2004 (Dykstra *et al.*, 2005), from which we selected 3,169 adult women.

By focusing on mothers' and daughters' labour market behaviours we do *not* imply that only mothers' and daughters' behaviours are gender-stereotypical. We limit our analyses to women primarily because there is too little statistical variation in the labour market behaviour of fathers and sons. Given that fathers who did not participate in the labour market tended to be unemployed or physically unable to work rather than homemakers, they cannot be compared to non-working mothers. Moreover, non-working fathers form such a marginal category that little can be drawn from a comparison with working fathers. When it comes to sons, the presence of part-time working men[6] merely implies a divide between men working on contracts of four or four and half days per week versus men working on five day contracts. This differs fundamentally from the variation in daughters' work-hours, which ranges from contracts for one day per week to five days.

3.4. Theoretical framework

In the following we will draw from the literatures on socialization and stratification to develop an integrated socio-economic perspective on the relationship between mother's and daughter's labour market behaviour. We start with notions from the literature on socialization, where we discuss that working and non-working mothers not only pass on different beliefs to their children about the roles of women as workers, spouses and mothers, but also set different behavioural examples. Secondly, the stratification literature explains how working mothers can equip their children with more (valuable) resources for labour market entry and career pursuit than non-working mothers.

3.4.1. Socialization literature

Men and women not only develop differently because of biological determinants, according to the socialization literature they are primarily *taught* to behave differently by their social environment. Parents are regarded as the

[6] About 17 per cent of sons in our sample work part-time which corresponds with national statistics on part-time working men in the Netherlands.

most important socializing agents, and childhood as the formative period in which behavioural preferences take shape, and in which later behaviour is rooted (Block *et al.*, 1973; Bandura, 1977; Chodorow, 1978; Witt, 1997). Empirical research on the socialization of men and women into gender-specific roles is marked by a strong focus on *attitudes*. Cross-sectional and longitudinal studies in the United States and Great Britain find positive relationships between the gender-role attitudes of mothers and daughters (Acock and Bengtson, 1978; Glass *et al.*, 1986; Starrels, 1992; Moen *et al.*, 1997; Cunningham, 2001a; Burt and Scott, 2002). Other American studies show that adolescent children of working mothers tend to have more egalitarian gender-role attitudes than children of non-working mothers (Thornton, Alwin and Camburn, 1983; Booth and Amato, 1994; Wrigth and Young, 1998). Based on these studies, we can conclude that the daughters of working mothers think it more acceptable and desirable for women to work than the daughters of non-working mothers.

Within the rather broad spectrum of the socialization literature, research on behavioural role modelling focuses on the reproduction of gendered *behaviours* across generations. Children are thought to learn from their parents' behaviour from very early on, and to perform behaviours similar to their parents' in adulthood (Bandura, 1977; 2001b; Cunningham, 2001a; Denuwelaere, 2003; De Valk, 2004). Daughters of working mothers are not only expected to have more egalitarian attitudes towards women's work than daughters of non-working mothers, but also to *behave* in a more gender-egalitarian way. Daughters of working mothers have witnessed their own mother combining paid and family work, and were physically part of their mother's combination strategy as children. They are more likely to help out with chores than daughters of non-working mothers, and their fathers are likely to perform more housework and childcare than sole-breadwinner fathers. In this way, the daughters of working mothers are more likely to have learnt from an early age that not just mothers are responsible for the household but other family members are too. They also have had the opportunity to familiarize themselves with the world of paid work not only through one, but two parents (provided both are present). In contrast, when daughters of non-working mothers want to combine raising a family with a paid job, they do not have these experiences and cannot resort to similar work-family strategies as their mothers, nor take their mother's example as a starting point from which to develop their own strategy. The mechanism of behavioural role modelling has been applied to the areas of housework and family-formation (Barber, 2001; Cunningham, 2001a, 2001b; Denuwelaere, 2003; De Valk,

2004), but we have not found empirical studies within the socialization literature that apply the mechanism to women's paid work.

3.4.2. Stratification literature

The literature on stratification or social mobility addresses another mechanism through which women's labour market behaviour can be reproduced, by pointing at resource transfers from parents to children (Blau and Duncan, 1967). Several studies suggest that working mothers transfer work-related resources to their children that homemaking mothers do not have, or have to a much lesser extent (Menaghan and Parcel, 1991; Kalmijn, 1994). These maternal resources are found to foster daughter's labour market participation, work-hours and their occupational success. In the first place, several British and American studies in the 1960s and 1970s found that the daughters of working mothers participated more often in the labour force than the daughters of homemaking mothers (Almquist and Angrist, 1970; Rapoport and Rapoport, 1971; Bielby, 1978; Kaufman and Richardson, 1982). Because these studies report on college women and their mothers at the very start of women's large-scale entry into the labour market, it is also possible that the found relationships reflect class inheritance effects more than the reproduction of gender-egalitarian behaviour we are expecting to observe today. More recently, two Dutch studies have shown that adult daughters whose mothers worked, more often have paid work themselves (Sanders, 1997) and less often scale back from part-time work to homemaking (Hendrickx, Bernasco and De Graaf, 2001). A drawback of these two studies is that they are restricted either to women with children of their own, or to married women, disallowing the separation of parental home and demographic career effects.

In addition to studies reporting on mothers and daughter's labour force participation, various stratification studies suggest that the occupational status of mothers and daughters are also related. Although these studies do not analyze the relationship between mother's labour market participation and daughter's work-hours, they are instrumental in showing that the labour market behaviour of mothers affects the labour market outcomes of daughters. Added to the empirical evidence that the daughters of working mothers more often have paid work, these studies provide clues as to how the labour market behaviours of mothers and daughters are related. A comparative study of the Netherlands, Germany and the USA finds that daughters of working mothers achieve a higher occupational status than daughters of homemaking mothers (Korupp, 2000). The same study also indicates that the higher the occupational status of mothers

is, the higher the occupational status of daughters. Earlier studies in the USA, Australia, the UK and Ireland report similar findings (Treiman and Terrell, 1975; Hayes and Miller, 1989; Aschaffenburg, 1995; Crook, 1995), and some authors conclude that the mother's influence on daughters' occupational status is greater than the father's, or more important for daughters than for sons (Rosenfeld, 1978; Stevens and Boyd, 1980; Khazzoom, 1997). A drawback of all of these studies is that they do not control for the demographic characteristics that have been found to affect women's occupational success, such as having a partner, being married, and presence and number of infant children (Dykstra and Fokkema, 2000).

Based on the empirical findings of the mentioned studies and based on the few studies that provide a theoretical framework (Kalmijn, 1994; Aschaffenburg, 1995; Korupp, 2000), we can think of three types of resources that working mothers transfer to their daughters on top of resources related to their education. Firstly, working mothers can share their *human capital* by teaching their children skills and behavioural codes that facilitate future entry into particular labour market sectors and occupational levels. One can think of learning how to address different people properly, how to convincingly present one-self both physically and verbally, how to negotiate, how to behave in a team or take up a leader-role, and how to combine family life with paid work. Daughters with these skills are more likely to enter and navigate the labour market successfully than daughters without (or with lesser developed) skills, and to continue investment in their professional development. Consequently, the daughters of working mothers are more likely to enter jobs at higher occupational levels that require a larger time investment per week than average, and to pursue these jobs after marriage and childbirth. So, the daughters of working mothers are more likely to participate on the labour market and to work more hours than the daughters of non-working mothers.

Secondly, working mothers can share the *social capital* of their professional network with their children. The literature on social networks suggests that social contacts can provide access to useful information, services and commodities, and even jobs (Lin, Vaughn and Ensel, 1981; De Graaf and Flap, 1988; Marsden and Hurlbert, 1988; Furstenberg, 2005). In this way, the daughters of working mothers are at an advantage over daughters whose mothers do not have such a professional network and consequently have no access to such resources. Such resource transfer can play a crucial role from early on in the daughters' career, when daughters obtain a first internship or

summer job through their mother's contacts. Following the same argument as about mother's human capital, it is likely that the daughters of working mothers experience fewer barriers to (full-time) labour market participation because of their mother's social capital.

Finally, working mothers have *financial capital*, namely their income. The transfer of this resource proves somewhat more difficult to distinguish from the transfer of educational resources — both theoretically and empirically. Although working mothers (especially those with a partner) may have more money to spend on their children than homemaking mothers,[7] these expenditures are likely to primarily feed into their children's labour market behaviour *in*directly, via children's educational development. The income that working mothers generate allows them, in addition to their partners' income, to provide better means for their daughters to study quietly at home, tools to enhance the daughter's learning process such as computers, internet connection and books, and supplementary schooling opportunities, such as private lessons or a study year abroad. As these resources all promote daughter's educational development, they are likely to result in better start-positions at daughter's labour market entry, and as explained previously, a larger likelihood of entering the labour market, higher occupational achievement in the long run, and thus a larger likelihood to remain in the labour market and to have jobs requiring more work-hours than average.

3.5. Hypotheses

Based on the literature about behavioural role modelling and resource transfers we arrive at four hypotheses. Firstly, the literature on behavioural role modelling suggests that daughters partly model their own behaviour in adulthood on the behaviour of their mothers in childhood. Thus, daughters raised by working mothers are more likely to participate in the labour force in adulthood than daughters raised by non-working mothers (*hypothesis 1*). The literature on behavioural role modelling also suggests that the daughters of working mothers behave in a more gender-egalitarian way than the daughters of non-working mothers. In the present context, this means working full-time, as the majority of

[7] We assume here that working mothers dispose of a higher household income than homemaking mothers, whereas working mothers may not have a partner with an income or their partner may earn a lower income than the partners of homemaking mothers. However, as a majority of mothers in our sample was married during their daughters' childhood, it is likely that they could dispose of a higher income than the homemaking mothers.

women works about three days per week. Therefore, we hypothesize that daughters raised by working mothers work more hours per week than daughters raised by non-working mothers (*hypothesis 2*). The literature on stratification also provides arguments that lead to hypotheses one and two. Due to the transfer of mother's human, social and financial capital, the daughters of working mothers are more likely to participate in the labour market and to work more hours than the daughters of non-working mothers.

As we have pointed at in the introduction, after taking into account the conventional explanations of education, employment history and demographics, there is more variation left to explain in women's work-hours than in women's labour force participation. For this reason, and given the change in cultural significance of women's labour market participation over time, we hypothesize that the daughter's work-hours will have a stronger relationship with mother's participation than the daughter's participation will have (*hypothesis 3*).

Finally, we hypothesize that daughter's participation and work-hours will be less strongly related to mother's participation than the conventional predictors education, occupational history and family formation (*hypothesis 4*). One reason for this hypothesis is the increase in women's labour force participation over time and hence the decline of women's participation as a marker of gender-egalitarian behaviour. Secondly, the time-span between childhood and the moment of interview is much longer than the time-span between finishing education or family-formation and the moment of interview. As time proceeds, maternal influences will increasingly compete with the influence of significant others such as the partner and of life experiences such as the daughter's educational trajectory, both of which are likely to gain importance from adolescence onwards. A third reason is that part of the maternal impact on daughter's labour market behaviour is likely to operate via daughter's educational achievement. This will strengthen the relationship of daughter's labour market behaviour with her own educational achievement and weaken the relationship with the mother's past labour market participation. Finally, there is the relatively limited variation in women's participation compared to the variation in their work-hours.

3.6. Data and sample

We analysed data from the first wave of the Netherlands Kinship Panel Study (NKPS), a national survey on family-relationships, held between October 2002

and December 2004 (Dykstra *et al.*, 2005). The data are based on a random address sample of individuals living in private households in the Netherlands. The overall response rate is 45 per cent, which is similar to the average response rates of other large scale family surveys in the Netherlands (Ultee and Ganzeboom, 1992; De Graaf *et al.*, 1998). The 48 per cent response rate of women is somewhat higher than men's response (42 per cent). We first selected all female key-respondents between the ages of 18 and 64 who either have paid work or are housewives (N=3,468). Women who are unemployed (N=116), students (N=69), chronically ill or handicapped (N=242), retired (N=68) or for other reasons outside the labour force (N=28) were excluded from the analyses because their labour market behaviour cannot be classified as either gender-stereotypic (homemaker) or gender-egalitarian (worker) (Hendrickx *et al.*, 2001). We excluded 23 women who differ less than 15 years in age with their mother, and 6 women whose answers could be classified as extreme and influential data points, based on the evaluation of Pearson residuals, deviance residuals and leverage values for the logistic regression analyses, and on the evaluation of studentized residuals, leverage values, Cook's D and DFITS values for the OLS regression analyses. The selected 3,169 women constitute the group of adult daughters in our analyses who reported on both their own paid work at the time of interview and on their mother's paid work in their own childhood and on all other variables included in our analyses.[8] Although retrospective information can be distorted by memory flaws or by the current situation of the respondent, it tends to be sufficiently reliable, especially when addressing tangible activities such as paid work (De Vries, 2006).

3.7. Methods

We analysed two distinct aspects of the daughters' labour pattern, namely their participation and their hours of paid work. Because only working daughters have a valid score on the number of hours worked, the 2,505 daughters in the analyses on work-hours possibly form a selective sub-sample of our research population, which can lead to biased estimates (Heckman, 1979; Maddala, 1983; c.f. Bekkers, 2004; Vlasblom and Schippers, 2005). By using the Heckman two-stage regression procedure we verified whether the correlation between the chance on participation and the worked hours differed significantly from zero (results not shown). This not being the case, we proceeded with estimating

[8] 270 Women without a valid response on one or multiple variables were excluded.

separate logistic regression models for daughter's participation and OLS regression models for daughter's hours of paid work.

3.8. Models

We estimated two models for daughter's participation and daughter's work-hours, first a baseline model including the conventional predictors of daughter's labour market behaviour and secondly a full model adding the maternal characteristics. The baseline model included: Daughter's age, education, years in the labour market, partnership status (single, cohabiting, living apart together, married), and total number of biological, step- and adopted children by age of the youngest child. In the full model mother's education and mother's labour force participation during the daughter's childhood were added to the baseline predictors. This model-sequence allows us to verify whether mother's labour market behaviour adds anything to the conventional explanations for women's labour market behaviour, such as daughter's own education and demographic characteristics. A second set of analyses was conducted separately for the sub-sample of 2,194 women with a partner. These analyses included information on the partner's level of education and income. In these analyses we only distinguish between married and non-married women, instead of four types of partner-statuses.

3.9. Measurements

3.9.1. Dependent variables

Table 3.1 presents unweighted means, ranges, and standard deviations for the variables employed in the multivariate analyses. We used two dependent variables to assess the extent of women's gender-stereotypical labour market behaviour. The first is the dummy variable for *participation* indicating that daughters have a paid job (score 1), with homemaking daughters as the reference category. The second dependent variable is the *actual number of hours*[9] that daughters weekly work for pay, provided they have paid work.

[9] This number may diverge from the amount of hours respondents are employed according to their contract.

Table 3.1. Unweighted means, percentages, standard deviations, and minimum and maximum values, women age 18-64, their partners and mothers (N=3,169)

	Mean / %	SD	Minimum	Maximum
Daughter				
Participation	79%	0.41	0.00	1.00
Work-hours[a]	27.96	11.95	0.00	90.00
Age	41.24	10.95	18.00	64.00
Age 18-29 years	16%	0.36	0.00	1.00
Age 30-49 years	58%	0.49	0.00	1.00
Age 50-64 years	26%	0.44	0.00	1.00
Education years	12.15	2.91	5.00	19.00
Years in labour force	17.87	11.58	0.00	48.00
Non-wage income	92.80	1272.76	0.00	70013.00
Non-wage income (log)	0.65	1.93	0.00	11.16
Single	20%	0.40	0.00	1.00
LAT	7%	0.26	0.00	1.00
Cohabiting	14%	0.35	0.00	1.00
Married	59%	0.49	0.00	1.00
Number of children	1.57	1.29	0.00	9.00
No children	28%	0.45	0.00	1.00
Youngest child age 0-3	16%	0.36	0.00	1.00
Youngest child age 4-11	20%	0.40	0.00	1.00
Youngest child age 12+	36%	0.48	0.00	1.00
Partner				
Education years	12.26	3.08	5.00	19.00
Total income	1319.26	1339.80	0.00	20000.00
Total income (log)	4.73	3.66	0.00	9.90
Mother				
Education years	9.00	2.74	5.00	19.00
Participation	22%	0.41	0.00	1.00

[a] The mean, standard deviation and minimum and maximum scores of work-hours apply to working women (N=2,194).

3.9.2. Independent variables: Daughter's adolescence and adulthood

We employed a number of variables to control for individual determinants of women's labour market participation. In the first place, we controlled for *daughters' highest achieved education*, expressed in effective years of schooling, not only because of the aforementioned indirect relationship between mother's past labour market behaviour, daughter's educational achievement and daughter's present labour market outcomes, but also because the higher women are educated, the more likely they are to participate on the labour market and to work full-time. Secondly, we included one indicator of daughter's *employment history*, namely the number of years she has been in the labour force. Women

who never worked scored zero on this variable. The longer women are in the labour force, the more skills and knowledge they have developed and the higher the potential revenue out of their labour — and the more costly every hour they do *not* work for pay becomes. Unfortunately we could not include more indicators of women's employment history because the other measures in the NKPS are too crude for the purpose of this chapter. Thirdly, *marriage* is more strongly related to gender-stereotypic beliefs and labour patterns of men and women than other kinds of partner-relationships or being single, resulting in married women's relatively limited involvement in paid work and high involvement in housework and childcare compared to cohabiting and single women (Shelton and John, 1993; Kuijsten, 1999; Cunningham *et al.*, 2005). Consequently, we included three dummy variables indicating whether the daughter is single (N=620), cohabiting (N=454), or living apart together (LAT, N=225), as opposed to being married (reference category, N=1,870). Studies on women's labour market behaviour also commonly include the number and age of children, because of the adverse effects of pregnancy and care for children on women's labour force participation (Van Der Lippe, 2001; Uunk, Kalmijn and Muffels, 2005; Vlasblom and Schippers, 2005) and occupational success (Dykstra and Fokkema, 2000). We incorporated the daughter's total number of biological, step- and adopted *children*, as well as three dummy variables indicating whether her *youngest child* is age 0-3 (pre-school, N=499), 4-11 (primary school, N=625) or 12 and older (secondary or tertiary education, N=1,147), with childless women as the reference category (N=898). Finally, it has been shown that Dutch women with highly educated partners more often work and in higher occupational levels than other women (Bernasco, 1994; Bernasco, De Graaf and Ultee, 1998). It has been suggested that the relatively high family wages in the Netherlands in conjunction with the early adoption of the bourgeois ideal of in-home childcare by the biological mother (Pott-Buter, 1993) have formed a disincentive to Dutch women's full-time participation. Given the previous considerations, women's participation and weekly work-hours may well be negatively related to partner income. In our models we included both the partner's total number of effective schooling years based on highest achieved education and the partner's total monthly income.

3.9.3. Daughter's age

We controlled for daughter's age in our analyses because life phase is crucial to women's labour market outcomes. Whereas in the past many Dutch women stepped out of the labour force upon marriage or birth of the first child, nowadays women tend to downsize their work-hours after childbirth (Hendrickx

et al., 2001; Schulz, Mortensen, Geyer, Mattil and Tsolova, 2006). This is illustrated by the predominance of part-time work by women older than age 30 (SCP, 2000; Román *et al.*, 2007), which is about the average age at birth of the first child (Beets, 2006). After age 50 work-hours further decrease as women approach retirement (Román *et al.*, 2007). We constructed three dummy variables indicating age-groups, namely 18-29 (reference category, N=494), 30-49 (N=1,853), and 50-65 (N=822). We chose to include daughter's age instead of birth-cohort because the work-hours of women aged 30-50 have changed very little over time (Román *et al.*, 2007), whereas we do find variation in women's work-hours by age-group.

3.10. Results

3.10.1. Daughters' labour force participation

Contrary to our first hypothesis, we find that being raised by a working mother does not affect the likelihood that Dutch women have paid jobs. The full models in the analyses on both samples of women (*table 3.2* and *table 3.3*, full model), show no relationship between the mother's labour market behaviour during daughters' childhood and the daughter's labour market participation in adulthood. The odds are positive but not significant. Mother's education is not directly related to daughter's participation either. Previous reverse-ordered analyses (not shown) suggested that mother's education has an indirect effect via daughter's own education. In these reverse-ordered analyses we first included maternal characteristics and then added the conventional predictors to our models in various steps. Then, the magnitude of the coefficient for mother's education diminished and its sign turned from positive to negative as soon as we introduced daughter's education.

With regard to the conventional explanations, our results mostly confirm previous reports. The higher women are educated, and the longer they have been in the labour force, the more likely they are to have paid work. In contrast, marriage and childbirth decrease this likelihood, the more so the more children women have and the younger the children are. Women older than 30 years are less likely to be in the labour force than women younger than 30 years of age.

Table 3.2. Logistic regression estimates and standard errors of the likelihood of having paid work compared to the likelihood of being homemaker, daughters' age 18-64 (N=3,169)

	Baseline model			Full model		
	Odds		SE	Odds		SE
Daughter						
Age[a]						
30-49 years	0.52	**	0.12	0.51	**	0.12
50-64 years	0.05	***	0.02	0.05	***	0.02
Education years	1.28	***	0.03	1.29	***	0.03
Years in labour force	1.15	***	0.01	1.15	***	0.01
Non-wage income (log)	0.72	***	0.02	0.72	***	0.02
Partnership-status[b]						
Single	5.48	***	1.30	5.60	***	1.33
LAT	8.99	***	3.70	9.23	***	3.81
Cohabiting	2.36	***	0.54	2.37	***	0.55
Number of children	0.76	***	0.05	0.76	***	0.05
Age youngest child[c]						
0-3 years	0.34	***	0.10	0.34	***	0.10
4-11 years	0.20	***	0.06	0.20	***	0.06
12+ years	0.18	***	0.06	0.17	***	0.06
Mother						
Education years				0.97		0.02
Participation				1.03		0.16
Loglikelihood	- 925.11			- 924.47		
Likelihood ratio χ^2	1405.93	***		1407.22	***	

[a] Reference category: 18-29 years.
[b] Reference category: Married.
[c] Reference category: Childless.
* P ≤ 0.05, ** P ≤ 0.01, *** P ≤ 0.001.

3.10.2. Daughters' work-hours

We find that the daughters of working mothers work more hours than the daughters of non-working mothers, confirming our second hypothesis. The results show significant effects of mother's labour force participation in both our full sample and the sub-sample of partnered women (*table 3.4* and *table 3.5*, Full Model). In the full sample, women who were raised by a working mother work one and half hour more per week than women who were not raised by a working mother. This means that they put in about six per cent more time than the average work-week of 28 hours. In the sub-sample of partnered women, this difference is almost two hours, about seven per cent more than the average. The total explained variance by the models including mother's past labour market participation is about one percentage point higher than the models without, and

Table 3.3. Logistic regression estimates and standard errors of the likelihood of having paid work compared to the likelihood of being homemaker, daughters' age 18-64 with a partner (N=2,194)

	Baseline model			Full model		
	Odds		SE	Odds		SE
Daughter						
Age[a]						
30-49 years	0.44	**	0.12	0.43	**	0.12
50-64 years	0.05	***	0.02	0.05	***	0.02
Education years	1.27	***	0.04	1.29	***	0.04
Years in labour force	1.15	***	0.01	1.15	***	0.01
Non-wage income (log)	0.78	***	0.03	0.78	***	0.03
Married	0.31	***	0.08	0.30		0.08
Number of children	0.80	**	0.06	0.80	***	0.06
Age youngest child[b]						
0-3 years	0.46	*	0.16	0.47	***	0.16
4-11 years	0.28	***	0.10	0.27	***	0.10
12+ years	0.25	***	0.09	0.25	***	0.09
Partner						
Education years	1.00		0.03	1.00		0.03
Total income	1.10	***	0.03	1.10	***	0.03
Mother						
Education years				0.97		0.03
Participation				1.05		0.18
Loglikelihood	- 720.10			- 719.58		
Likelihood ratio χ^2	948.59	***		949.62	***	

[a] Reference category: 18-29 years.
[b] Reference category: Childless.
* $P \leq 0.05$, ** $P \leq 0.01$, *** $P \leq 0.001$.

test statistics indicate that the model improvement, though small, is significant in both sub-samples.[10]

Most of our findings also support the conventional explanations for women's work-hours. In both samples we find that the higher women are educated, the more hours they work, that married women work fewer hours, and that the younger their children are the fewer hours women work. The finding that even women with teenage children work several hours less than childless women underlines the path-dependency of earlier choices regarding work-hours. In our full sample we also find that the more children women have, the fewer hours

[10] Full sample: $F(2,2487) = 6.16$, $p = 0.002$, sample of women with a partner: $F(2,1665) = 5.56$, $p = 0.004$.

Table 3.4. OLS regression estimates and standard errors of weekly work-hours, daughters' age 18-64 (N=2,502)

	Baseline model				Full model			
	b		**SE**	**β**	**b**		**SE**	**β**
Daughter								
Age[a]								
30-49 years	0.25		0.67	0.01	0.22		0.67	0.01
50-64 years	-1.82		1.03	-0.06	-1.81		1.03	-0.06
Education years	0.92	***	0.07	0.22	0.96	***	0.08	0.22
Years in labour force	0.08	**	0.03	0.08	0.08	**	0.03	0.08
Non-wage income (log)	-1.59	***	0.13	-0.22	-1.59	***	0.13	-0.22
Partnership-status[b]								
Single	5.68	***	0.58	0.20	5.70	***	0.58	0.20
LAT	3.08	***	0.81	0.07	3.04	***	0.81	0.07
Cohabiting	4.01	***	0.62	0.13	3.90	***	0.62	0.12
Number of children	-0.82	**	0.29	-0.08	-0.84	**	0.29	-0.09
Age youngest child[c]								
0-3 years	-8.24	***	0.83	-0.26	-8.18	***	0.83	-0.25
4-11 years	-7.95	***	0.87	-0.26	-7.94	***	0.87	-0.26
12+ years	-3.29	***	0.88	-0.13	-3.29	***	0.88	-0.13
Mother								
Education years					-0.15		0.08	-0.3
Participation					1.54	**	0.48	0.05
Constant	18.48	***	1.19		19.02	***	1.31	
Adjusted R^2	0.31				0.32			

[a] Reference category: 18-29 years.
[b] Reference category: Married.
[c] Reference category: Childless.
* $P \leq 0.05$, ** $P \leq 0.01$, *** $P \leq 0.001$.

they work, but not in our sub-sample of partnered women. Apparently the age of children matters more to the work-hours of women with a partner than how many children they have. We find no significant difference in work-hours between women younger than 30 years and those who are older. The standardised coefficients show that women's own level of education and having a child younger than 12 years are the strongest predictors of women's work-hours in both samples.

Table 3.5. OLS regression estimates and standard errors of weekly work-hours, daughters' age 18-64 with a partner (N=1,680)

	Baseline model				Full model			
	b		**SE**	**β**	**b**		**SE**	**β**
Daughter								
Age[a]								
30-49 years	-0.96		0.84	-0.04	-1.02		0.84	-0.04
50-64 years	-2.30		1.27	-0.07	-2.37		1.27	-0.08
Education years	1.18	***	0.11	0.28	1.20	***	0.11	0.28
Years in labour force	0.06		0.04	0.05	0.06		0.04	0.06
Non-wage income (log)	-1.22	***	0.20	-0.13	-1.23	***	0.20	-0.13
Married	-2.43	***	0.65	-0.09	-2.33	***	0.65	-0.09
Number of children	-0.59		0.32	-0.06	-0.61		0.32	-0.06
Age youngest child[b]								
0-3 years	-9.64	***	0.96	-0.34	-9.51	***	0.96	-0.34
4-11 years	-9.58	***	1.07	-0.34	-9.50	***	1.07	-0.34
12+ years	-4.98	***	1.11	-0.20	-4.89	***	1.11	-0.19
Partner								
Education years	-0.14		0.10	-0.04	-0.12		0.10	-0.03
Total income	0.12		0.09	0.03	0.11		0.09	0.02
Mother								
Education years					-0.13		0.10	-0.03
Participation					1.90	**	0.59	0.07
Constant	21.11	***	1.55		21.25	***	1.68	
Adjusted R^2	0.28				0.28			

[a] Reference category: 18-29 years.
[b] Reference category: Childless.
* $P \leq 0.05$ ** $P \leq 0.01$ *** $P \leq 0.001$.

Our finding that having a working mother affects women's work-hours whereas it does not affect the likelihood that Dutch women have paid jobs, supports our third hypothesis that daughter's work-hours are stronger related to mother's participation than daughter's participation is. We also find support for our fourth hypothesis that daughter's participation and work-hours are less strongly related to mother's participation than the conventional predictors' education, occupational history and family formation. In both samples we do not find a significant relationship between daughter's and mother's participation, whereas we find significant relationships between daughter's participation and the conventional predictors educational achievement, employment duration, partnership status, and number and age of children (table 3.2 and table 3.3, Full Models). Moreover, the standardised coefficients in our full sample (*table 3.4*) indicate that the relationship between daughter's work-hours and mother's

participation is weaker than the relationship between daughter's work-hours and several of the conventional predictors, especially daughter's level of education and age of the youngest child. However, the coefficient of mother's participation is similar in size to the coefficient of daughter's number of children.

The relationship between daughters' work-hours and mother's education is not as robust across sub-samples as the relationship with mother's participation. In our full sample, the relationship is weak but significantly negative. In our sub-sample of partnered daughters, the relationship is not significant. As in our analyses of daughter's participation, previous reverse-ordered analyses (not shown here) suggest that the relationship is indirect and runs partly via daughter's own educational achievement, because the coefficient of mother's education becomes negative only when daughter's education is added to the model.

All in all our findings suggest that women's work-hours are related to their mother's participation in the past, but they are even more strongly related to women's own educational achievement, their partner-relationship, and the age of their children.

3.11. Conclusions and discussion

In developed countries, today's adult women have been raised by working mothers on a much larger scale than women of preceding generations, as a consequence of the increase in working women since the 1960s. Nevertheless, women's work-hours continue to lag behind those of men, resulting in the so-called part-time divide. In this sense, the gendered division of labour proves to be persistent. In response to this situation we coined the question to what extent women's labour market behaviour reproduces itself from one generation to the next, and to what extent such reproduction can explain women's work-hours in addition to the conventional explanations education, work-history and family-formation. We studied the labour market behaviour of mothers and daughters in the Netherlands, a prototypical example of the part-time divide with its high rates of part-time working women. We expect that the outcomes of this study also shed light on the part-time divide in other European countries, especially in countries that also have a relatively large gender gap in work-hours, such as the UK and Germany.

Although daughters' own level of education and the age of their children emerge as the strongest predictors of their participation and work-hours, and although mother's participation is not related to daughter's participation, our results suggest that being raised by a working mother has an impact on women's work-hours. In other words: Daughters of working mothers are not more often in the labour force than daughters of non-working mothers, but they do work more hours per week. This is a generic effect, applying to women of all ages, with and without partners, and with and without children. We believe it is quite striking that the mother's early labour market behaviour matters to the labour market behaviour of adult women, whose behaviour is linked to that of many significant 'others' in their lives apart from their mothers and to life experiences such as educational and occupational trajectories continuing long after women have left their parental home. Something is handed down from one generation of women to the next, being it through behavioural role modelling or resource transfers. This reproduction can help to explain why the gender stereotypic labour market behaviour of women proves resistant to change. The reproductive pattern suggested by our findings concurs with other research on the relevance of mother's early labour market behaviour for children's labour market outcomes in adulthood (e.g. Sanders, 1997; Cunningham, 2001b). In this way our findings add to the body of empirical evidence pointing out that it is fruitful to expand the conventional explanations of women's labour supply with explanations at the intergenerational level, at least with characteristics of the mother.

Studying the reproductive aspect of women's labour patterns relative to its conventional determinants informs us about the extent to which there is potential for change in women's labour market behaviour. This issue is especially relevant in the context of governmental attempts to stimulate women's labour market participation in the face of population aging and its increasing demands on welfare state institutions, as stipulated by the Lisbon objectives and other EU directives (European Commission, 2007). From this perspective it is interesting to note that daughters with working mothers work approximately six to seven per cent more hours than daughters who did not have a working mother as an example in their childhood. At the aggregate level, such an increase of the hours supplied by women would have substantial consequences for the sustainability of the welfare state and the combat against future labour market shortages resulting from the ageing of the population. Most programs seek to promote women's labour market participation by targeting the 'conventional' determinants of women's work-hours, for example by expanding women's educational opportunities, reallocating taxes and benefits, and expanding the

professional childcare sector. Our results suggest, however, that the success of such programs might be dampened because they do not take into account how resistant women's work-hours are to change, in part due to the intergenerational reproduction of work patterns.

Given our finding that Dutch women's labour market behaviour is reproduced across the generations, a question for future research is whether this pattern is caused by behavioural role modelling or resource transfers, or both. This would be useful information for policy programs seeking to stimulate women's work-hours. If mother-daughter resource transfers emerge as a particularly strong reproduction mechanism, such programs could attempt to intervene in the process of resource transfers by offering external resources to women whose mothers lack particular skills, knowledge or network contacts. In contrast, it would be much more difficult, if not impossible, to intervene in the process of behavioural role modelling by parents. However, alternatives to the maternal role model could be offered. For example, mentors and coaches at school and at work could fulfil such a role, and young women could learn about different labour market behaviours than those practised at home by doing an internship early on in their educational career.

In future research we would also like to address the reproductive labour market behaviour of men. With the share of part-time working men (with children) growing in several countries and especially the Netherlands, a generation of young adults that is raised by part-time working fathers is in the making. This will open up new possibilities to assess same- and cross-sex effects of behavioural role modelling, as we could compare children of part-time working fathers with children of full-time working mothers. We could also look into the relative importance of the mechanisms through which gendered-stereotypic or gender-egalitarian behaviours are reproduced. On the one hand we would expect part-time working fathers to set a more gender-egalitarian example for both sons and daughters than full-time working fathers, but on the other hand we expect them to have fewer resources, thus potentially constraining daughters' labour market involvement.

Finally, the observed relationship between the labour market behaviour of mothers and daughters rises the question to what extent *un*paid labour patterns are reproduced across generations. Do the daughters of mothers who do relatively little housework perform less housework and childcare in adulthood than other women, and do the sons of mothers who do relatively little

housework perform more of these tasks compared to other men? We intend to follow up on these questions in future research.

4. Support for working mothers: The impact of grandparent help with housework and childcare on the work-hours of parents with young children[11]

4.1. Abstract

Based on a sample of 921 respondents of the first wave of Netherlands Kinship Panel Study Data we explored the relationship between the labour force participation and work-hours of mothers and fathers with young children on the one hand and grandparent help with childcare and housework on the other. Our aim was to provide more insight into the ways in which downward intergenerational support shapes labour market behaviours. We expected that grandparents support the labour force participation of their descendants by reducing the time squeeze in families with young children. Our findings suggest that mothers more often participate and work more hours when they receive grandparent help with routine housework, but not when they receive grandparent help with occasional housework or childcare. We found no relationships between the work-hours of fathers and grandparent help. The relationship between mothers' work-hours and grandparent help with routine housework did not vary according to their income, non-standard work-hours, infant children, or traditional beliefs. We draw on alternative explanations for our findings, including the prevalence of part-time work among mothers in the Netherlands.

4.2. Introduction

In this chapter we use data from the first wave of the Netherlands Kinship Panel Study to assess the extent of grandparent help with childcare, routine housework, and occasional housework in the Netherlands and the relationship between parents' work-hours and receiving such help. We use a sample of 921 men (N=311) and women (N=610) in the Netherlands with at least one co-resident child aged six years or younger and at least one living biological parent. We answer the following research questions: To what extent do parents receive

[11] The paper on which this chapter is based is co-authored by Joop J. Schippers and Pearl A. Dykstra, and is currently under review at an international journal.

help from grandparents with childcare and housework? Do parents who receive grandparent help with childcare and housework work more hours than parents who do not receive such help? We intend to explore the extent to which grandparents in the Netherlands today reduce the time squeeze in families with young children by supporting the labour force participation of parents. This will provide more insight into the ways in which downward transfers of instrumental support shape parents' labour market behaviours.

4.3. Patterns of downward support

In the Netherlands, in other European countries and in the United States of America (USA), grandparents play a major role in the provision of childcare to parents of young children. Grandparents tend to be the most important providers of childcare for parents who arrange informal childcare, especially grandmothers (Presser, 1989; Hair Hunts and Avery, 1998; Brandon, 2000; Wheelock and Jones, 2002; Portegijs *et al.*, 2006; Gilsing, 2007). Estimates of the prevalence of grandparent childcare in households with young children range from 21 per cent in the USA (Johnson, 2005), to an average of 32 per cent across 10 countries in Europe (Hank and Buber, 2009). Grandparent childcare ranges from weekly full-time care to sporadic arrangements (Lowe Vandell *et al.*, 2003), such as childcare during school holidays (Attias-Donfut and Wolff, 2000) or 'emergency' help when a child turns ill and cannot attend school (Tobio, 2004). The average prevalence of grandparent childcare in Europe even increases to 58 per cent when sporadic childcare is included (Hank and Buber, 2009). In the Netherlands, 30 per cent of households with young children use grandparent childcare (Portegijs *et al*., 2006). Dutch children aged 0-3 years spend on average 12 hours per week in grandparent care, and children aged 4-11 years on average 7 hours (Portegijs *et al*., 2006).

Besides help with childcare, many parents of young children also receive other practical help from grandparents. It is estimated that on average 9 per cent of parents aged 50 and older in Europe provide practical help to their adult children and that (grand)parents spend on average of 12 hours per week providing help, or 17 hours with childcare included (Albertini *et al.*, 2007). Yet it should be taken into account that these are averages across ten European countries. Grandparents in Southern European countries tend to spend considerable more time on helping their children compared to their Northern European counterparts, probably because Southern European countries have fewer welfare state arrangements that ease parents' reconciliation of work and childcare, offer

less publicly funded childcare, and have fewer part-time employment opportunities compared to Northern European countries (Albertini *et al.*, 2007; Hank and Buber, 2009). A comparative study of the United Kingdom (UK) and the USA estimated that 32 to 56 per cent of parents aged 55 and older help their (adult) children with chores, paperwork and other practical matters in the UK, and 23 to 33 per cent of parents in the USA (Henretta *et al.*, 2002). Please note that these UK and USA percentages are likely to include help provided by parents to (college-attending) children in their twenties and early thirties who have no family of their own yet, in addition to help by grandparents to the parents of young children. In the Netherlands, figures based on the same NKPS data used in this chapter suggest that half of all adult children with (non-resident) living parents receive some kind of instrumental support from their parents, and that those with children of their own receive more support from parents than those who are childless (Knijn and Liefbroer, 2006).

4.4. Relationship between labour force participation and received grandparent help

Despite these indications of substantial transfers of instrumental support from grandparents to parents of young children in Europe and the USA, little is known about the impact of such help on parents' labour force participation and work-hours. Previous studies have suggested that dual worker parents and single parents use grandparent childcare more often and more intensively than couples in which one parent (most often the mother) is not employed, although grandparents care for the children of non-employed parents too (Lowe Vandell *et al.*, 2003; Guzman, 2004; Johnson, 2005; Lippman *et al.*, 2008). Two studies, one among immigrant grandparents in France (Dimova and Wolff, 2008), the other among mothers in the UK (Gray, 2005), yield compelling evidence that grandparent childcare allows mothers to participate in the labour force. Both studies focus on mothers' labour market participation without elaborating on the impact of grandparent childcare on mothers' work-hours, although Gray distinguishes between full- and part-time workers in descriptive analyses and makes an incidental reference to mothers' work-hours (Gray, 2005). Other limitations of these studies are that they do not include fathers and do not include grandparent help with housework. Moreover, the results from the French study cannot be generalized to the larger French population given that they are derived from an immigrant sample.

Considering the time squeeze that parents with infant children face (Kops *et al.*, 2006), grandparent help with both childcare and housework is likely to save parents valuable time and energy that can be invested in paid work. Grandparent help is particularly likely to enable mothers to spend time in the labour force, given that mothers tend to carry out the lion's share of childcare and housework within households (Bianchi *et al.*, 2000). It has been suggested that "childcare of grandchildren (…) has the function of helping young mothers in the upward path of social mobility. This is an expression of female solidarity towards promoting the professional career of women" (Attias-Donfut and Wolff, 2000). In this way, grandparent help can reduce gender inequalities with regard to income, occupational success, representation, and influence in organizations.

The gender gap in work-hours in the Netherlands is the largest in Europe, with women working 25 hours per week on average, compared to 37 hours by men (Cuijpers *et al.*, 2006). Women with children of primary school age work fewest hours, on average 21 hours per week (Dijkgraaf and Portegijs, 2008). In contrast, after childbirth most fathers continue to work full-time or even increase their work-hours (Cuijpers *et al*., 2006). Although part-time workers in the Netherlands are generally well protected, women earn substantially less than men, build up fewer (pension) benefits, and have fewer career opportunities. Despite its reputation as having the highest percentage of male part-time workers in the world, namely 23 per cent of all male workers, in the Netherlands part-time work (1-34 hours per week) is much more prevalent among Dutch women (75 per cent of all female workers) than among Dutch men (Keuzenkamp and Steenvoorden, 2008). In comparison, the European (EU-15) average is that 41 per cent of working women work part-time, and 10 per cent of working men (Keuzenkamp and Steenvoorden, 2008). Given the substantial variation in work-hours among Dutch women, and the comparatively high prevalence of part-time work among Dutch men, the Netherlands form a particularly suitable case to study the relationship between the work-hours of parents with young children and their receipt of grandparent help. Moreover, the Dutch have been characterized to strongly endorse the norm that mothers/women should do homemaking and childcare themselves rather than using paid services (Portegijs *et al.*, 2006; Gilsing, 2007). Given that grandparents are family members, grandparent help responds better to this societal norm of self-sufficiency in the home than paid services (Portegijs *et al.*, 2006; Gilsing, 2007). On the one hand, this makes it particularly likely in the Netherlands that grandparent help enables parents, especially mothers, to work for pay. On the other hand, given that many Dutch women work less than three

days per week, the time budget conflict between paid work, childcare and homework is likely to be smaller than in other countries with a higher prevalence of full-time work among women. This makes it less likely in the Dutch context than in other countries that grandparent help enables parents (mothers) to work for pay.

4.5. Theoretical framework

4.5.1. Time budget restrictions

To study the relationship between parents' work-hours and received grandparent help, we adopt a framework of behavioural choices based on preferences and restrictions. The most obvious restriction that plays a role is time. Given that a day contains 24 hours, only a limited number and duration of activities can be carried out within a day. After the birth of children, parents face new time expenditures on childcare and increased time expenditures on housework, given that the presence of infant children tends to increases the daily housework load (Gjerdingen and Center, 2005). Parents need to reconcile these new time expenditures with their other activities: Work, housework, sleep and leisure. The literature suggests several strategies adopted by parents to solve time budget conflicts. Firstly, women are known to reduce their work-hours in response to childcare and housework demands (Gjerdingen and Center, 2005). In the Netherlands about 50 per cent of mothers reduce their work-hours after the birth of their first child, and 10 per cent of fathers (Cloïn and Hermans, 2006). Secondly, some parents adjust their work-schedules to non-standard hours to make sure that one or both parents can take care of the children after day-care or school hours (Presser, 2003; Han, 2004; Täht and Mills, 2008). Thirdly, parents (partly) outsource childcare and/or housework, to formal (paid) providers such as day-care centres and laundry services, and to informal (paid or unpaid) providers such as grandparents, baby-sitters and domestic workers (Van Dijk, 1994; De Ruijter, 2005). Another strategy adopted by parents —mothers more so than fathers— to solve time budget conflicts is to cut back on their leisure and sleep time (Venn, Arber, Meadows and Hislop, 2008).

We consider received help from grandparents with childcare and housework as a form of outsourcing. Previous research in the Netherlands has shown that the use of domestic help reduces time spent on housework, especially for women (De Ruijter, 2005). Other Dutch research has found that mothers work more hours the more available subsidized day-care for infant children is in the region where they live (Van Dijk and Siegers, 1996). Research in other developed

countries also suggests that using childcare decreases women's time spent on childcare. In the USA, mothers who made use of non-maternal childcare were found to spend 7.5 hours less per week on providing childcare themselves than mothers who did not make use of non-maternal childcare (Booth, Clarke-Stewart, Vandell, McCartney and Owen, 2002). Given that women tend to reduce their work-hours and increase their time spent on housework and childcare in response to childbirth (Gjerdingen and Center, 2005; Cloïn and Hermans, 2006), and given that women's investments in housework (and childcare) are negatively related to their investments in paid work (Becker, 1985; Blossfeld and Drobnic, 2001a; Adema, 2002; Powers, 2003; Cunningham, 2007), outsourcing childcare and housework is likely to enable women to maintain or even increase their work-hours.

We hypothesize that parents who receive help with childcare and/or housework from grandparents work more hours than parents who do not make use of grandparent help, all else equal (*hypothesis 1*). Given that women tend to perform most housework and childcare within households and that women more often scale back work-hours in response to care-giving demands than men, we hypothesize that grandparent help will facilitate women's work-hours more than men's (*hypothesis 2*). Grandparent help with childcare might save parents more time than grandparent help with housework. The main difference between housework and childcare is that caring for infant children requires a continuous presence throughout the day, even when care tasks are completed. Housework is not tied to specific moments during the day and can be done after office hours. Given that paid work might conflict more strongly with doing childcare than housework, we hypothesize that parents who receive grandparent help with childcare work more hours than parents who receive grandparent help with housework (*hypothesis 3*). However, we emphasize that this hypothesis disregards that grandparents may help out with childcare because grandparents want to spend time with their grandchildren rather than that such help enables parents to spend time at work. In contrast, such 'excess supply' of help is less likely to occur with regard to housework.

4.5.2. Financial restrictions

A second restriction that plays a role in the relationship between parents' work-hours and grandparent help is finances. Gray's research in the UK suggests that grandparent help with childcare especially stimulates the labour market participation of low income women (Gray, 2005), because they cannot afford to rely on professional childcare. We hypothesize that the difference in work-hours

between those who receive grandparent help and those who do not is larger among parents with a low household income than among parents with higher incomes (*hypothesis 4*). If grandparent help prevents low income mothers from forgoing paid work, it helps to reduce inequalities between income groups. In the long run, mothers' labour market participation, especially when mothers achieve a white collar or higher occupational level, is likely to increase children's chances of educational and occupational achievement (Khazzoom, 1997; Sanders, 1997; Korupp, 2000). Employed mothers can pass on valuable resources to their offspring such as information, social contacts and finances (Kalmijn, 1994). Employed mothers also provide children with a behavioural role model, which stimulates the labour force participation of the next generation of women (Van Putten, Dykstra and Schippers, 2008).

4.5.3. Non-standard work-hours

Parents who work non-standard hours (NSS) (Hair Hunts and Avery, 1998) are restricted in their use of market-based services because the latter can only be called on during office hours and according to a pre-arranged schedule. In contrast, grandparents can help in weekends and evenings, for short periods of time, and on short notice (e.g. when a work-shift changes suddenly). This makes parents who work NSS more likely than other parents to use grandparent help and it also makes them more dependent on grandparent help. Consequently, we hypothesize that the difference in work-hours between parents who receive grandparent help and parents who do not is larger among NSS working parents than among parents who work standard schedules (*hypothesis 5a*). However, for many women who work non-standard schedules (NSS) ensuring that one parent is home with the children forms an important motivation to choose an NSS arrangement (Han, 2004; Täht and Mills, 2008). Working NSS helps parents to avoid a time budget conflict between work and home. Rather than enabling parents to go to work, grandparent help may enable NSS-working parents to sleep or to do leisure activities during the daytime. This raises the alternative hypothesis that the difference in work-hours between parents who receive grandparent help and parents who do not is smaller among parents who work a non-standard schedule (*hypothesis 5b*).

4.5.4. Preferences

Apart from the aforementioned restrictions, parents' preferences are likely to determine the impact of grandparent help on work-hours too. Parents who strongly prefer grandparent help over other help providers, such as paid services, neighbours or friends, are likely to depend more heavily on grandparent help.

Therefore their work-hours will depend more strongly on grandparent help than those of parents with different preferences. Parents may prefer grandparent help to market-based services and other informal help providers for several reasons.

An important reason to use grandparent help reported by (predominantly female) respondents in studies in the Netherlands and the UK study is their confidence and trust in grandparent childcare (Wheelock and Jones, 2002; Portegijs *et al.*, 2006). The mothers in these studies counted on the grandparents not to let their own offspring down, and knew what to expect from their own parents because they were raised by them too. This confidence is likely to reduce stress and worries, and may even reduce feelings of guilt some mothers have when at work. In this way, the high trust placed in grandparents removes an important barrier for mothers to stay in the labour force and to maintain their work-hours. Studies suggest that trust is particularly relevant during children's first two years, when they are most vulnerable (Wheelock and Jones, 2002; Gray, 2005; Portegijs *et al.*, 2006). Once children grow older, parents may find professional supervision and play with other children in a day-care centre increasingly important because they expect this to have a positive impact on children's development (Uttal, 1999). We hypothesize that the difference in work-hours between parents who receive grandparent help with childcare and parents who do not is larger when parents have children in the 0-2 age group compared to parents with older children (*hypothesis 6*).

Preferences for grandparent help may also be related to normative beliefs about the role and obligations of family members towards each other, and about parents' obligations to adult children in particular. Those who strongly endorse such downward support obligations are more likely to favour grandparent care over paid services (Hertz and Ferguson, 1996; Kuhlthau and Mason, 1996; Uttal, 1999). Moreover, parents with traditional gender-role beliefs are less likely to use paid services than parents with strong gender-role egalitarianism. Parents with strong gender traditionalism are also likely to prefer childcare by relatives over market-based childcare because gender-role traditionalism ties in to beliefs about women's responsibility for homemaking and child-keeping. Mothers with strong gender-role beliefs are more likely to accept their own mothers as surrogate homemakers than to hire paid services. We hypothesize that the more traditional parents' beliefs are, the larger the difference in work-hours is between parents who receive grandparent help and parents who do not (*hypothesis 7*).

4.6. Methods

4.6.1. Sample

We analyzed data from the Netherlands Kinship Panel Study (NKPS), a national survey on family-relationships, collected between 2002 and 2004 (Dykstra *et al*., 2005). The data are based on a random address sample of individuals living in private households in the Netherlands. The overall response rate of the first wave was 45 per cent, which is similar to the average response rates of previous large scale family surveys in the Netherlands (De Graaf *et al*., 1998; Ultee and Ganzeboom, 1992). All of the data used in the present chapter were collected by means of face to face computer assisted interviews, except for data on normative beliefs which were collected by paper and pencil self-completion questionnaires. We drew a sample of 921 men (N=311) and women (N=610) who were employed or homemakers, with at least one co-resident child aged younger than six years and at least one living biological parent. We only included parents with at least one child below six years because the questions on grandparent help with childcare in part referred to care for young children (baby-sitting and physical care), and previous research suggests that pre-school children are most often cared for by grandparents (Johnson, 2005; Portegijs *et al.*, 2006). Excluded from the sample were respondents who had no response to items on help received from a parent although this parent was alive or because information about whether this parent was alive was missing (25 fathers, 48 mothers). Excluded from the sample too were respondents who did not return the self-completion questionnaire (36 fathers, 36 mothers), which contained questions on normative beliefs. We estimated separate models for male and female respondents because their dependency patterns of housework, childcare, and paid work are known to differ substantially (Van Der Lippe, 1993; Bianchi *et al.*, 2000; Coltrane, 2000; Gjerdingen and Center, 2005).

4.6.2. Dependent variable

Table 4.1 presents an overview of all measurements used. The dependent variable, *work-hours*, was based on the following two questions: 'Do you currently have paid work?' and 'How many hours a week on average do you actually work?' The dependent variable reflects the weekly work-hours of respondents working at least one hour per week in paid employment. We included both employees and self-employed respondents. We assigned homemakers a value of 0 work-hours. Those without work due to

Table 4.1. Unweighted means, percentages, standard deviations, and lowest and highest values within range, mothers and fathers with at least one co-resident child aged < six years and at least one living biological parent[a]

	Mothers				Fathers			
	M/%	**SD**	**Low**	**High**	**M/%**	**SD**	**Low**	**High**
Works (1=yes) (reference group: Homemaker)	79%	0,41	0,00	1,00	99%	0,10	0,00	1,00
Work-hours	17,13	12,08	0,00	54,00	42,24	9,87	0,00	65,00
Frequent help received from >= 1 own parents:								
with childcare (1=yes)	54%	0,50	0,00	1,00	31%	0,46	0,00	1,00
with routine housework (1=yes)	28%	0,45	0,00	1,00	12%	0,32	0,00	1,00
with occasional housework (1=yes)	28%	0,45	0,00	1,00	16%	0,36	0,00	1,00
Interaction control variables:								
Non-labour income (log-transformed)[b]	6,81	2,18	0,00	9,55	4,81	3,13	0,00	8,85
Non-labour income below 750 Euro (1=yes)	12%	0,32	0,00	1,00	52%	0,50	0,00	1,00
Non-standard work-schedule (NSS) (1=yes)	7%	0,25	0,00	1,00	14%	0,35	0,00	1,00
Age youngest child	2,34	1,51	0,00	5,00	2,40	1,48	0,00	5,00
Age youngest child ≤ two years (1=yes)	76%	0,43	0,00	1,00	75%	0,44	0,00	1,00
Gender role traditionalism	1,70	0,65	1,00	4,33	1,95	0,69	1,00	4,75
Downward support obligation	2,95	0,72	1,00	5,00	3,17	0,74	1,25	5,00
Additional control variables:								
Paid childcare (1=yes)	45%	0,50	0,00	1,00	45%	0,50	0,00	1,00
Paid domestic help (1=yes)	19%	0,39	0,00	1,00	18%	0,39	0,00	1,00
Education years	12,62	2,56	5,00	20,00	13,04	2,94	6,00	20,00
Employment duration	12,64	5,30	0,00	31,00	15,60	6,24	3,00	38,00
Health limitations (1=yes)	13%	0,34	0,00	1,00	10%	0,30	0,00	1,00
Age	33,69	4,57	20,00	47,00	36,59	5,61	20,00	56,00
Number of children	1,92	0,88	1,00	6,00	2,04	1,00	1,00	11,00
Urbanization	3,06	1,23	1,00	5,00	3,10	1,26	1,00	5,00
Co-resident partner (1=yes)	93%	0,25	0,00	1,00	99%	0,11	0,00	1,00

[a] Number of observations: Mothers: 610, fathers: 311.

[b] Non-labour income includes respondent's monthly net revenue from benefits plus the partner's total net monthly income.

unemployment (6 fathers, 16 mothers), chronic illness or disability (7 fathers, 14 mothers) were excluded from our analyses given that these groups are not outside the labour force by choice and therefore incomparable to homemakers.

4.6.3. Explanatory variables

The three focal independent variables in this study are indicators of frequently received grandparent help. From now on we refer to frequently received grandparent help as grandparent help or received help. *Childcare help* was based on the question directed to the key respondent in reference to each living non-co-resident biological parent: "In the last three months, did you receive help from (parent) with taking care of the children, such as babysitting, physical care, and transportation?" In the Netherlands, co-residence between parents and adult children is very rare. On the basis of the NKPS data we estimated that less than one per cent of parents with young children co-reside with grandparents. *Routine housework help* was based on the question: "In the last three months, did you receive help from (parent) with housework, such as preparing meals, cleaning, fetching groceries, doing the laundry?" *Occasional housework help* was based on the question: "In the last three months, did you receive help from (parent) with practical matters such as chores in and around the house, lending things, transportation, moving things?" The answer categories to each question were: "None", "once or twice", and "multiple times". For each indicator, we dummy-recoded the answer categories so as to indicate that the respondent received help from one or both biological parents multiple times in the past three months.

We included several variables in the multivariate analyses to control for the preferences and restrictions shaping the relationship between parents' work-hours and grandparent help, in line with hypotheses 4-7. More precisely, to test these hypotheses we computed interaction terms by multiplying specific control variables with indicators of grandparent help.

To test hypothesis 4 we included as a proxy for household income the log-transformed composite measure of the respondent's *non-labour income*, based on the key-respondent's income from benefits plus the partner's total income (if present) .We replaced the missing values of 26 men and 43 women on non-labour income with a stratified mean score based on respondent's sex, age, and level of education. We did not include the respondent's income from paid work in this measure because this is endogenous to the dependent variable work-hours. We computed a dichotomous indicator of respondents whose non-labour income was below 750 Euros per month, which is 50 per cent of the average

income for a four-person household according to the National Institute of Budget Information Service (NIBUD, 2008). We computed three interaction terms between this dummy variable and each of the three indicators of grandparent help.

To test hypothesis 5a and 5b we included an indicator of whether the respondent weekly *works a non-standard schedule*, namely during nights and/or weekends. To test hypothesis 6 we computed three interaction terms between the dichotomous indicator having a youngest child in the age of 0-2 years and each of the three indicators of grandparent help.

To test hypothesis 7 we included two indicators of *normative beliefs*. The respondent's *gender role traditionalism* is the mean sum-score of four items rated on a five-point Likert-type scale: 'A woman must quit her job when she becomes a mother', 'It's unnatural if men in a business are supervised or managed by women", "It's more important for boys than for girls to be able to earn a living later in life", and "Working mothers put themselves first rather than their families" (Cronbach's alpha: Fathers: 0.78, mothers: 0.78). The respondent's attitude towards *downward support obligation* was the mean sum-score of four items rated on a five-point Likert-type scale: "Parents should support their adult children when they need it", "Parents should help their adult children financially when they need it", "Parents should provide lodging to their adult children when they need it", and "Grandparents should be prepared to look after their grandchildren regularly" (Cronbach's alpha: Fathers: 0.77, mothers: 0.76). We computed interaction terms between each of the two normative belief indicators and each of the three indicators of grandparent help. From now on we refer to the control variables described in this section as interaction control variables.

As additional controls we included several conventional determinants of work-hours in the multivariate models. We controlled for the *use of paid domestic help* and *use of paid childcare* because any impact of received grandparent help on work-hours may (partly) reflect an impact of receiving any help at all, which can be partly attributed to using paid services. We included *highest achieved educational level*, expressed in effective number of schooling years, and *employment duration* in years spent in the labour market. These human capital indicators are likely to reduce the impact of non-labour income and non-standard work-schedule on work-hours.

As controls for a possible spurious relationship between grandparent help and work-hours we included, firstly, whether parents are restricted in their daily activities by *health problems*, because parents with health problems are likely to work fewer hours and to receive more grandparent help. Secondly, we controlled for the *respondent's age* given that younger respondents are likely to work more hours than older respondents and to receive more help from grandparents (Cooney and Uhlenberg, 1992; Cuijpers *et al.*, 2006; Knijn and Liefbroer, 2006). Thirdly, we included *number of living children* of respondent and/or partner, because of the adverse effects of pregnancy and care for children on women's labour force participation (Van Der Lippe, 2001; Uunk *et al.*, 2005; Vlasblom and Schippers, 2005). Next, we included the *degree of urbanization* of the respondent's municipality as a proxy for the availability of paid childcare and household services in the vicinity of the respondent's home. Finally, we controlled for whether the respondent had a *co-resident partner* because single parents are more likely to receive help and to work (full-time).

4.6.4. Weights

In order to improve the representativity of our descriptive results to the Dutch population, we used a weight that adjusts the random household sampling design of the NKPS to a random individual sampling design and corrects for deviances from (non-institutionalized) population statistics regarding marginal distributions across various groups differentiated by household type, gender, age, region, and degree of urbanization of resident location (Dykstra *et al.*, 2005).

4.6.5. Models

We estimated tobit regression models to model the interdependencies between our dependent variable work-hours and the independent indicators of grandparent help with housework and childcare (Tobin, 1958; Maddala, 1983; Verbeek, 2004). Given that 22 per cent of the mothers in our sample were non-employed housewives, the distribution of work-hours among the mothers is heavily left-skewed due to the large number of zero-values, which form the lower limit of the distribution. In case of a truncated distribution such as our work-hours distribution, tobit regression is generally preferred over OLS regression, which would yield biased estimates if we would include the non-working mothers as well as if we would exclude them from analysis (Tobin, 1958; McDonald and Moffitt, 1980). In addition to the commonly presented tobit coefficients we decomposed these estimates into two kinds of so-called marginal effects: The change in the probability of having work due to a unit-

increase in the independent variable, and the change in work-hours among the working due to a unit-increase in the independent variable (McDonald and Moffitt, 1980; Roncek, 1992). This decomposition allows us to estimate to what extent our tobit coefficients refer to the difference between having work and not having work or to marginal increases in work-hours among those who have work.

Our tobit models are based on the assumption that grandparent help predicts labour force participation and work-hours, rather than the other way around. We have not tested or corrected for the possibility that grandparent help and parents' work-hours are *inter*dependent rather than having a one-way causal relationship, because programming a simultaneous system of a logistic or probit model with a tobit model was beyond the scope of this chapter. However, Dimova and Wolff analyzed the mutual dependency between mothers' labour force participation and received help with childcare from grandparents with a simultaneous model (Dimova and Wolff, 2008). Its results suggest that grandparent help affects mothers' labour force participation, not the other way around. This provides empirical ground for the causal assumption on which our tobit model is based, in addition to the theoretical arguments we discussed in our introduction and literature review.

4.7. Descriptive results

In line with the literature, our results suggest that a substantial segment of Dutch parents of infant children receives help from grandparents (table 4.1). Parents most often receive help with childcare, and less often with housework. Over half of the mothers and about one-third of the fathers receive grandparent help with childcare, whereas 28 per cent of mothers and 12 per cent of fathers receive help with routine housework, and 28 per cent of mothers and 16 per cent of fathers receive help with occasional housework. Yet when we look at parents' combinations of the three types of grandparent help (*table 4.2*), it becomes clear that a large group of mothers, namely 40 per cent, and the majority of fathers, namely 63 per cent, receive no help from grandparents at all. The remaining parents are almost evenly split between a group that receives either grandparent help with childcare (20 per cent mothers, 16 per cent fathers) or housework (7 per cent mothers, 6 per cent fathers), and a group that receives grandparent help with both childcare and housework (34 per cent mothers, 15 per cent fathers). Only 5 per cent of all fathers and 15 per cent of all mothers receive all three types of grandparent help.

Table 4.2. Weighted percentages of received grandparent help, fathers and mothers with at least one co-resident child aged < six years and at least one living biological parent [a]

%	**Mothers**	**Fathers**
Received no help	40	63
Help with childcare only	20	16
Help with routine and/or occasional housework:	*7*	*6*
Help with routine housework only	2	1
Help with occasional housework only	3	4
Help with routine and occasional housework	2	1
Help with housework and childcare:	*34*	*15*
Help with routine housework and childcare	10	4
Help with occasional housework and childcare	9	6
Received all three types of help	15	5

[a] Number of observations: Mothers: 610 (weighted: 537), fathers: 311 (weighted: 362).

Mothers more often report to receive grandparent help than fathers. Such a gender difference is commonly found (Matud, Ibanez, Bethencourt, Marrero and Carballeira, 2003). The most important explanations for women receiving more help than men are that women tend to be more involved in childcare and housework than men, tend to coordinate the outsourcing of childcare and housework more often than men, and women tend to participate in intergenerational exchange relationships more often than men (Hogan *et al.*, 1993; Matud *et al.*, 2003; Bracke *et al.*, 2008).

4.8. Multivariate results

We regressed received help from grandparents with childcare, routine housework, and occasional housework on mothers' and fathers' work-hours (*table 4.3*). The base-line model shows no relationship between mothers' work-hours and grandparent help (table 4.3, model 1). However, once we include the various control variables in our model, we find that mothers who receive frequent help from one or both grandparents with routine housework work almost two and half hours more than mothers who do not receive this help, all else equal (table 4.3, model 2). Mothers who receive frequent help with childcare or occasional housework do not work more hours than mothers who do not receive such help. Fathers who receive help with housework or childcare do not work more hours either than fathers who do not receive grandparent help (table 4.3, both models).

Table 4.3. Tobit coefficients and standard errors of work-hours, mothers and fathers with at least one co-resident child aged < six years and at least one living biological parent [a]

	Mothers				Fathers			
	Model 1		Model 2		Model 1		Model 2	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Frequent help received from >= one parents:								
With childcare	0.28	1.42	- 0.41	1.07	- 0.34	1.36	- 0.61	1.29
With routine housework	2.08	1.60	2.39 *	1.20	0.67	1.95	1.41	1.83
With occasional housework	0.55	1.53	0.39	1.16	0.99	1.73	0.20	1.64
Interaction control variables:								
Non-labour income[c] (log-transformed)			- 0.40	0.22			- 0.25	0.19
Non-standard work-schedule (NSS) (1=yes)			9.88 ***	1.83			5.35 ***	1.53
Age youngest child ≤ two years (1=yes)			1.97	1.23			- 2.07	1.33
Gender role traditionalism			- 4.14 ***	0.82			0.84	0.87
Downward support obligation			- 0.24	0.69			- 0.68	0.73
Additional control variables:								
Paid childcare (1=yes)			7.45 ***	1.10			0.59	1.21
Paid domestic help (1=yes)			3.74 ***	1.29			2.55	1.50
Education years			1.50 ***	0.23			0.37	0.24
Employment duration			1.21 ***	0.13			0.41 *	0.19
Health limitations (1=yes)			0.15	1.38			- 3.28	1.81
Age			- 0.96 ***	0.17			- 0.67 ***	0.22
Number of children			- 3.12 ***	0.62			0.72	0.58
Urbanization			0.35	0.40			- 1.44 ***	0.45
Co-resident partner (1=yes)			- 0.61	2.03			- 5.10	4.81
Model characteristics:								
Constant	14.57 ***	0.93	22.79 ***	6.09	42.10 ***	0.69	65.47 ***	8.41

[a] Number of observations: Mothers: 610, of which 132 observations censored, fathers: 311, of which 3 observations censored.

* $p \leq 0.05$ *** $p \leq 0.001$.

Next, we tested hypotheses 4-7 about the dependency of the relationship between work-hours and grandparent help on each of the following indicators of restrictions and preferences of the respondent: Non-labour income, non-standard work-schedule, age of the youngest child, and traditional beliefs. Given that none of the tested interaction terms turned out to be significant, we do not present the models that include the interaction terms.

With 21 per cent of mothers in our sample being homemakers, we decomposed mothers' tobit coefficients from the second model presented in table 4.3 into two estimates (*table 4.4*). The first estimate denotes the increase in the probability of having paid work due to an increase in an independent variable, the second estimate denotes the marginal increase in work-hours due to an increase in an independent variable. Grandparent help with routine housework increases the probability to have paid work with three per cent (table 4.4, first column). The decomposed marginal effect of grandparent help with routine housework on work-hours (table 4.4, second column) is quite similar in size to the tobit coefficient of grandparent help with routine housework presented in table 4.4. Both estimates are significant at the five per cent level. The results suggest that the relationship between mothers' work-hours and grandparent help with routine housework as presented in table 4.4 primarily reflects differences in work-hours among working mothers, but also reflects that mothers who receive grandparent help slightly more often have work (as opposed to homemaking). Given that only one per cent of the fathers in our sample were homemakers, the relationships between fathers' work-hours and independent variables can be almost exclusively contributed to marginal increases in their work-hours, rather than to their probability of having paid work (results not shown).

4.9. Discussion

In this study we explored the relationship between the work-hours of mothers and fathers with young children and received grandparent help with childcare and housework. Our aim was to provide more insight into the ways in which downward instrumental support shapes the labour market behaviour of the descendent generation. Previous studies focused primarily on the implications of grandparent help with childcare for the labour force participation of mothers (Gray, 2005) in immigrant communities (Dimova and Wolff, 2008). We aimed to contribute to the existing literature by studying parents' work-hours in addition to labour force participation, by including grandparent help with routine

Table 4.4. Decomposed tobit estimates and standard errors of work-hours, mothers with at least one co-resident child aged < six years and at least one living biological parent[a]

	Probability to have paid work		SE	Marginal effect on work-hours		SE
Frequent help received from ≥ one own parents:						
With childcare	- 0.006		0.01	- 0.38		0.99
With routine housework	0.030	*	0.01	2.21	*	1.12
With occasional housework	0.005		0.02	0.36		1.07
Interaction control variables:						
Non-labour income (log-transformed)	- 0.005		0.00	- 0.37		0.21
Non-standard work-schedule (NSS) (1=yes)	0.077	***	0.01	9.48	***	1.79
Youngest child aged ≤ two years (1=yes)	0.029		0.02	1.79		1.12
Gender role traditionalism	- 0.056	***	0.01	- 3.81	***	0.76
Downward support obligation	- 0.003		0.01	- 0.22		0.63
Additional control variables:						
Paid childcare (1=yes)	0.099	***	0.02	6.86	***	1.00
Paid domestic help (1=yes)	0.044	***	0.01	3.49	***	1.22
Education years	0.020	***	0.00	1.38	***	0.21
Employment duration	0.016	***	0.00	1.11	***	0.12
Health limitations (1=yes)	0.002		0.02	0.14		1.27
Age	- 0.013	***	0.00	- 0.89	***	0.16
Number of children	- 0.042	***	0.01	- 2.88	***	0.57
Urbanization	0.005		0.01	0.32		0.36
Co-resident partner (1=yes)	- 0.008		0.03	- 0.56		1.88

[a] Number of observations: 610, of which 132 observations censored.
* $p \leq 0.05$ *** $p \leq 0.001$.

and occasional housework as well as with childcare, by including fathers, by testing interactions between received help and various indicators of parents' restrictions and preferences, and by using a nationally representative sample.

4.9.1. Relationship work-hours and grandparent help with routine housework

Our results suggest that, all else equal, mothers who receive grandparent help with *routine housework* have a three per cent higher probability to participate in the labour force, and work about two and half more hours compared to mothers who do not receive such help. Although a difference of two and half hours may not seem substantial, it means a difference of 14 per cent compared to the average 17 hours work-week of the mothers in our sample, and a difference of 9 per cent compared to the average 26 hours work-week of all working women in the Netherlands. Increasing women's work-hours with such percentages would substantially reduce the shortage of supply in the Dutch labour market (OECD, 2008). This study adds to the growing literature on the importance of downward

transfers of support within families (Hogan *et al.*, 1993; Klein Ikkink, Van Tilburg and Knipscheer, 1999; Attias-Donfut *et al.*, 2005; Knijn and Liefbroer, 2006; Albertini *et al.*, 2007; Hank and Buber, 2009). Our findings suggest that grandparents provide meaningful instrumental support to the mothers of young children, with the important economic consequence that their help with routine housework allows Dutch mothers to work more hours. In the Dutch context it is particularly relevant that receiving grandparent help is associated with mothers working more hours, as the part-time divide in the Netherlands is one of the largest in Europe, and leads to substantial gender inequalities in incomes, pensions, and representation in positions of economic, political and judicial decision-making.

We found that grandparent help with routine housework benefits Dutch mothers' work-hours regardless of their financial and work-schedule restrictions, and regardless of whether they prefer grandparents over other sources of help. However, our results may somewhat underestimate interaction effects because our grandparent help variable possibly groups together different frequencies of help-provision. Namely, the same indicator reflects different intensities of received help, which have different consequences for different groups of help-receivers. This makes it difficult to test whether the same amount of help received has a different impact on two groups of respondents, for example low and high income mothers. Cross-validation of our results will need to establish whether the relationship between Dutch mothers' work-hours and grandparent help indeed does not vary with mothers' incomes, work-schedule, age of children and normative beliefs.

Our different results for fathers and mothers once again highlight the gender differences in the interdependencies between childcare, housework, paid work, and receiving intergenerational support. Mothers of young children share a larger burden of house- and care work than fathers and their larger involvement in housework hinders their work-hours more. However, mothers generate more grandparent help than fathers, and seem to benefit more from such help in terms of time spent in the labour force.

4.9.2. No relationship work-hours and grandparent help with childcare

We found no relationship between parents'—particularly mothers'— work-hours and grandparent help with *childcare*. We have several tentative explanations for this finding. Firstly, mothers may actually benefit more from help with housework than from help with childcare. Although grandparents may

contribute substantially to childcare and create time for mothers to be at work, mothers are likely to spend time with their children after work regardless — both because they want to and because grandparents are unlikely to complete all daily childcare tasks. In contrast, when grandparents clean, cook, or do the laundry, their housework contribution actually reduces the 'daily grind' and saves parents time after work. Moreover, mothers are known to direct energy and time to coordinate childcare (Pool and Lucassen, 2005; Portegijs *et al.*, 2006), whereas it is unlikely that they spend a similar amount of time and energy coordinating domestic help. In other words, grandparent help with housework may be more effective in saving time and energy than grandparent help with childcare.

Secondly, the high prevalence of part-time work among mothers (and to a smaller extent: Fathers) in the Netherlands creates a particular relationship between parents' work-hours, their time spent on childcare, and grandparent help with childcare. In contrast to mothers in countries with a predominantly full-time labour force such as France, Spain or the USA, most Dutch mothers solve the conflicting demands of work and family by working part-time, outsourcing only a limited part of all childcare and housework. In this way, they are able to organize their paid work in such a way that they can keep childcare into their own hands (Portegijs *et al.*, 2006; Portegijs and Keuzenkamp, 2008). Dutch fathers make a relatively small contribution to childcare and housework given that mothers do most. Moreover, part-time working fathers can take care of the few remaining tasks on their weekly day or afternoon off. Due to the prevalence of part-time work, Dutch parents are likely to have a smaller time budget conflict between paid work and childcare than parents in countries with a predominantly full-time labour force. Apparently, the prevalence of part-time work does not leave enough of a work-family conflict to be solved by grandparents providing childcare. This may explain why we find no association between grandparent help with childcare and work-hours among Dutch parents. In contrast, our findings suggest that grandparent help with routine housework *does* provide mothers with more time at work in the Netherlands. This is not surprising given that the housework load in families with young children requires a substantial time investment (Gjerdingen and Center, 2005), yet its menial and repetitive aspects make routine housework a largely undesired activity (Brines, 1993; Bianchi *et al.*, 2000; Spitze and Loscocco, 2000). Whereas grandparent help with childcare does not seem to change mothers' time investment into their children, receiving help with the 'daily grind' seems

effective in reducing time spent on housework and creating more time for paid work.

Thirdly, grandparents may provide childcare because they want to be involved with their grandchildren, rather than because parents need to outsource childcare. Evidently, there is no relationship between parents' work-hours and grandparent childcare if there is no parental demand for grandparent childcare, or if such a demand does not originate in parents' wish to spend time at work but instead to carry out another activity. In contrast, such an 'excess supply' of grandparent help is less likely to occur with regard to housework.

Finally, the lacking relationship between work-hours and grandparent help with childcare might be attributed to the measurement of grandparent help. As pointed at previously, help-receivers in our study may not form a homogeneously enough group in terms of frequency of received help. Although our measure distinguishes those who received help several times in the past three months from those who received help only once or twice or no help at all, it groups those who receive help daily, or weekly and those who receive help once in three weeks together. This means that the potentially strong impact of intensive help with childcare on work-hours may be watered down by a potentially weak impact of less intensive help. In contrast, grandparents who provided help with *housework* multiple times are likely to form a more homogenous group. Namely, the segment of grandparents providing housework help is smaller than the segment providing help with childcare. Moreover, housework requires smaller time investments and less frequent repetition than childcare.

4.9.3. Recommendations for future research

There are several aspects of our research problem that demand further investigation. Given that our data did not contain absolute measures of parents' time spent on housework and childcare, we could not control for parents' time expenditure on these tasks nor directly test our assumption that grandparent help saves parents time on housework and childcare. However, the positive relationship we found between mothers' work-hours and grandparent help with routine housework suggests that grandparent help saves mothers time to spend on their jobs. Another limitation of this study is that we could not include information about help received from the partner's parents. Consequently, our models do not capture all help received and are likely to underestimate the impact of grandparent help on the labour market behaviour of parents. Finally,

men in the age group 30-44 were under-represented in the NKPS whereas women in these age groups were over-represented (Dykstra *et al.*, 2005). This is probably related to mothers with young children being at home more often than fathers, which made them more likely to respond to interviewers' probes for contact. It is likely that the fathers who are under-represented most work the longest hours, and those who work long hours may have the highest incomes and be the highest educated. However, they may also have the most traditional beliefs. It should be taken into account that the under-representation of fathers with high social-economic status and traditional beliefs may lead to an under-estimation of the interaction effects of household income and traditional beliefs. All these issues point at avenues via which future research can deepen our insight into the impact of grandparents on parents' labour market behaviour and economic outcomes.

5. No conflict: The interdependency between the work-hours and provision of instrumental support to elderly parents of middle aged women and men[12]

5.1. Abstract

This study assesses the relationship between the work-hours and the provision of instrumental support to parents among 779 middle aged women and men in dual worker couples in the Netherlands, by estimating a simultaneous two-stage probit least squares model of work-hours and provision of parent-support. We explicitly take into account that individuals' engagement in paid work and parent-support depends on the time budget and financial restrictions posed by partners and co-resident children. Contrary to expectations, the results do not reveal a conflict between paid work and providing parent-support among middle aged men and women in dual worker couples. We address several alternative explanations for this finding. The results emphasize the importance of the household context. The work-hours of both women and men depend on their household members' activities and finances, as does men's provision of parent-support. The striking lack of any dependency of women's provision of parent-support on individual and contextual characteristics demonstrates the persistence of gender-typed roles in family-support-giving.

5.2. Introduction

Several studies have assessed to what extent the provision of daily personal care to elderly parents' conflicts with paid work in midlife. Daily personal care refers to activities of daily living (ADL) such as bathing, dressing, toileting, and feeding. Despite contradictory findings (Moen *et al.*, 1994; Wolf and Soldo, 1994; Dautzenberg *et al.*, 2000), there is convincing evidence suggesting that women's provision of parent-care forms a barrier to their labour market

[12] The paper on which this chapter is based is co-authored by Jan D. Vlasblom, Joop J. Schippers and Pearl A. Dykstra, and is currently under review at an international journal. Earlier versions of this chapter have been presented at the Methodology Seminar of Center for the Demography of Health and Aging, University of Wisconsin, Madison, USA (29th November 2006), and at the European Sociological Association Conference 2007, Glasgow, UK (4 September 2007).

involvement (Ettner, 1995; Pavalko and Artis, 1997; Spiess and Schneider, 2003; Henz, 2004). Moreover, aggregate European data also suggest that working women are less likely to take up daily care-giving than non-working women (Ogg and Renaut, 2006), but this is not found in the USA and Canada (Moen *et al.*, 1994; Barnes, Given and Given, 1995; Pavalko and Artis, 1997).

Many studies on parent-care and paid work focus on the USA, which is characterized by limited public provisions of care and assistance to elderly (cf. Spiess and Schneider, 2003), and by the majority of elderly relying primarily on informal care rather than on publicly provided services (Tennstedt, 1999). A comparative study of multiple European countries suggested that in countries with limited public elder-care provisions, such as in Spain and Italy, middle aged adults provide more daily personal care, but less practical help with the household and paperwork than middle aged in countries with more extensive public elder-care provisions such as Sweden, Denmark and the Netherlands (Ogg and Renaut, 2006). Furthermore, the percentage of middle aged adults that provides any help to their elderly parents tends to be higher in European countries with relatively extensive welfare state provisions (Ogg and Renaut, 2006). These findings align with the growing consensus that welfare state provisions for elderly supplement informal help by family members rather than that they crowd out family help, because family members can focus on the provision of instrumental support, such as housework, transport, doctor's visits, and paperwork, instead of on daily personal care (Bettio and Plantenga, 2004; Attias-Donfut *et al.*, 2005; Motel-Klingebiel *et al.*, 2005; Ogg and Renaut, 2006; Albertini *et al.*, 2007; Künemund and Rein, 1999).

This is the reason why in this chapter we focus on the *provision of instrumental support* to parents by middle aged women and men in the relatively generous welfare state of the Netherlands. We define instrumental support as help with instrumental activities of daily living (IADL) such as routine housework, maintenance and yard work, errands, transportation, and paper work. Another reason for focusing on instrumental support rather than personal care is that most elderly do not suffer from severe functional limitations, as these tend to be concentrated among the population beyond age 85 (Perenboom, 2005; Lafortune and Balestat, 2007; Nusselder *et al.*, 2008). In the Netherlands, men spend more than 95 per cent of their life beyond age 65 without moderate to severe health problems, and women more than 93 per cent (Perenboom, 2005).

This chapter addresses the interdependency between the work-hours of midlife men and women and their provision of instrumental support to elderly parents in the Netherlands. We aim to make three contributions to the literature. Firstly, we focus on the relationship between *work-hours* and the provision of parent-*support* in the context of extensive publicly provided elder-care arrangements (in the Netherlands). Secondly, we estimate a simultaneous model that takes into account the *inter*dependency between work-hours and the provision of parent-support. Namely, the neoclassical micro-economic perspective suggests that time spent on paid work can be both cause and consequence of time spent on parent-support, rather than assuming that only one causes the other (Ettner, 1995; Johnson and Lo Sasso, 2000). Thirdly, we explore the interdependencies between the activities of individuals, partners and co-resident children. The most dominant household arrangement in mid-life is to live with a partner and one or more children, followed by living together with a partner (Agree *et al.*, 2003; Fields, 2003; US Census Bureau, 2006; Fokkema and Liefbroer, 2008; Statistics Netherlands, 2008). In the Netherlands, 34 per cent of men and women between the ages of 40 and 60 years live with a partner, and 44 per cent live with a partner and children (Statistics Netherlands, 2008, author's calculation). Help provided to parents can be regarded as an integral part of the intra-household division of labour (Hook, 2004; Szinovacz and Davey, 2008), instead of assuming that midlife adults reconcile paid work and parent-support independent of, or in isolation from, their household members. On the one hand, partners and co-resident children can free middle aged men and women from household obligations and partners can free them from the need to provide income. On the other hand, partners and children make demands on middle aged men and women's time and energy.

Our first research question is: To what extent are mid-life adults' work-hours and provision of parent-support interrelated? Our second research question is: To what extent do midlife adults' work-hours and provision of parent-support depend on their partner's involvement in paid work, housework, support to own parents, relative wage, and income, and the presence and age of children, and on their co-resident children's help with housework? We employ first wave Netherlands Kinship Panel Study data collected from 2002 to 2004 (Dykstra *et al.*, 2005) of 779 women and men in the Netherlands aged 40-64 in dual worker couples, who have at least one living biological parent.

5.3. Literature review

5.3.1. Time budget restrictions as a source of conflict between support-provision and paid work

According to the extended micro-economic theory commonly referred to as new home economics (NHE) (Becker, 1965; Gronau, 1980; Kooreman and Wunderink, 1996), individual time expenditures on paid labour, unpaid labour, and leisure are interrelated. Because a day has only 24 hours individuals need to prioritize activities. According to the theory they will spend most time on those activities that yield the highest utility. So, individuals need to weigh the rewards gained from paid labour, unpaid labour, and from leisure, as well as the costs of forgoing these activities, when deciding how to fit all activities into their restricted schedules. With regard to unpaid labour, NHE theory focuses primarily on housework and childcare, forms of unpaid labour referred to as *home production*. Several studies on time use in families with young children have generated empirical evidence for the interdependencies between time expenditures within individual time budgets. Full-time employment is found to conflict with the performance of housework and childcare, and because mothers tend to invest substantially more time in unpaid labour than fathers after childbirth, housework and childcare particularly form a barrier to *women's* labour market involvement (Shelton and John, 1996; Sanchez and Thomson, 1997; Adema, 2002; Powers, 2003; Gjerdingen and Center, 2005; Gupta, 2006b; Maume, 2006).

From this perspective, the provision of parent-support in midlife, paid work and provided parent-support are also likely to be interdependent activities within an individual time budget (Johnson and Lo Sasso, 2000; Spiess and Schneider, 2003). Qualitative research in the Netherlands suggests that the provision of parent-support can conflict with paid work by interrupting the providers' paid work (Van Doorne-Huiskes *et al.*, 2002), for example when support-providers need to accompany their parents on a visit to the doctor during office hours. This Dutch study also finds that providing parent-support increases stress and fatigue, especially when support-providers monitor and coordinate the help provided by others, including professionals. Such adverse consequences for the well-being of support-providers are likely to influence their performance at work and may lead to scaling back work-hours. Based on the micro-economics notion of time budget restrictions, our first hypothesis is that men and women are less likely to provide parent-support the more hours they work, and that they are likely to work fewer hours when they provide parent-support (*hypothesis 1)*.

5.3.2. Interdependencies between household members

Based on the insights from NHE theory one can also argue that individual time budgets of partners in couples are interrelated: Time spent on paid labour by one family member provides household income that benefits all family just as household production like cleaning the house or preparing a meal also yields benefits to all. When we want to explain time expenditures of individuals in partner-relationships, this means that we need to take into account not only the activities of an individual, but also the activities performed by the partner. The extension of the NHE-approach to help provided to parents in midlife is relatively new. Consequently, there is little empirical material on the role of the partner's activities in the individual reconciliation of paid work and parent-care or parent-support. The results of a recent study in the USA suggest that the division of paid work between partners influences their division of parent-care (Szinovacz and Davey, 2008). It finds that men contribute more time —and their spouses less— to parent-care, the more hours their spouses work in comparison to these men, and the same is found when spouses are employed and men are not. Although the authors do not interpret this finding, it seems to suggest that when women are less available as care-givers than their spouses, men are more likely to engage in care-giving. Moreover, studies on the labour division within couples with young children have provided ample empirical support for the interdependencies between partners' contributions to paid work, housework, and childcare. In couples where women work (near) full-time or in weekend and night-shifts, men tend to do more housework and spend more time with their children (Coltrane and Ishii-Kuntz, 1992; Presser, 1994). Men also contribute more to housework the more hours women work (Cunningham, 2007).

Yet it is also reported that in couples where both spouses work (full-time), women more often than men decrease their time spent on paid work and decrease other investments in paid work (for example by turning down a promotion) in response to their partner's investments in paid work, their partner's educational and occupational status, and the presence of infant children (Maume, 2006). This suggests that the interdependencies within couples tend to be gendered (Brines, 1994).

Based on NHE theory's notion of interdependencies between the activities of household members due to time budget constraints, and based on the previously discussed literature on the labour division in couples with young children, we have formulated the following hypothesis regarding the impact of the partner's activities on individuals' work-hours and provision of parent-support. We

hypothesize that individuals are likely to work more hours, and are more likely to provide parent-support, the more they are freed from household obligations by their partner's contributions to housework, whereas individuals are likely to work fewer hours, and are less likely to provide parent-support, the more they are subjected to household obligations by their partner's involvement in paid work and support-provision to the partner's own parents (*hypothesis 2*).

Co-resident children can also be included in the interdependencies between the activities of household members. Given that co-resident children of mid-life adults tend to be in their teens, most of these children should be able to carry out domestic tasks. Several studies suggest that many co-resident children help out with housework (White and Brinkerhoff, 1981a; Cogle and Tasker, 1982; Antill, Goodnow, Russell and Cotton, 1996; Bianchi and Robinson, 1997; Gager, Cooney and Call, 1999), with daughters generally taking on more routine housework such as cooking and cleaning, and sons more occasional housework such as gardening and maintenance (Blair, 1992; Manke, Seery, Crouter and McHale, 1994; Denuwelaere, 2003; Evertsson, 2006). There is little research on the relationship between children's help with housework and parents' allocation of time. One empirical study in the UK suggests that adult children help out with housework in support of their mothers' reconciliation of work and care (Henz, 2004). This study found that women with co-resident adult children were more likely to report that care-giving did not affect their work arrangement (Henz, 2004). In the USA, men were found to contribute more to parent-care when they had a co-resident or nearby living daughter (Szinovacz and Davey, 2008). The authors' interpretation is that daughters pull their fathers into care for grandparents, whereas sons do not (to the contrary). An alternative perspective would be that daughters provide fathers with more time to support grandparents, as they free fathers from domestic tasks more than sons (cf. Henz, 2004).

Although co-resident children may provide help with housework, their presence also involves time expenditures, given that the volume of housework and parenting increases with the presence of each additional child. Moreover, parents are likely to spend time on leisure activities together with children (Kurz, 2002; Solomon, Warin, Lewis and Langford, 2002; Wang, Bianchi and Raley, 2005).

Taking the previous into account, we hypothesize that individuals are likely to work more hours, and are more likely to provide parent-support, when they are freed from household obligations by their co-resident children's contributions to

housework, and that individuals are likely to work fewer hours, and are less likely to provide parent-support the more they are subjected to housework, childcare and parenting, due to the more children they have and the younger their children are (*hypothesis 3*). We want to emphasize that the household help provided by co-resident children is unlikely to *cause* middle aged men and women to engage in parent-support or to start working more hours. However, receiving such housework help from co-resident children may help support-providers to decide to *continue* to provide parent-support, and to continue to work a certain number of hours rather than to scale back.

5.3.3. The Dutch case

Given that 75 per cent of employed women work part-time in the Netherlands (Eurostat, 2008b), and given the large variation in their number of hours worked, this country lends itself particularly well to study the relationships between the work-hours of middle-aged women and their provision of parent-support. Men's over-all part-time employment rate is also relatively high in the Netherlands (24 per cent (Eurostat, 2008b)). Despite the comparatively high occurrence/recurrence of part-time work in the Netherlands, scaling back work-hours is likely to be a viable response to elder-support obligations in other European countries too. The overall part-time employment rate of 18 per cent in the EU-27 countries is substantial, and female part-time employment rates in Switzerland, Germany, Sweden, Norway, Denmark, the UK, Austria, Belgium and Luxembourg range as high as between 36 and 59 per cent (Eurostat, 2008b).

5.4. Sample

We analyse data from the first wave of the Netherlands Kinship Panel Study (NKPS public release file), a national survey on family relationships, held between October 2002 and December 2004 (Dykstra *et al.*, 2005). We use data from the primary respondents, which is a sample of individuals living in private households in the Netherlands, and data of their partners. The overall response rate among the primary respondents was 45 per cent, which corresponds with the response rate of other large-scale family surveys in the Netherlands such as the Family Survey Dutch Population and the Netherlands Family Survey (Ultee and Ganzeboom, 1992; De Graaf *et al.*, 1998, 2000, 2003; De Leeuw and De Heer, 2001). The Dutch appear to be particularly sensitive about privacy issues.
The primary respondent data were collected by means of computer assisted personal interviews (CAPI) and drop-off self-completion questionnaires (over-all response 92 per cent). We used CAPI data on all the variables used in the

multivariate analyses other than the partner's contribution to housework, the primary respondent's gender role attitudes, work-ethic, and filial obligation, which were derived from the primary respondent self-completion questionnaire. We used partner drop-off self-completion questionnaire data on the partner's provision of instrumental support to the partner's parents. Although overall 72 per cent of partners of selected primary respondents returned their self-completion questionnaire, 79 per cent of partners of female respondents in our sample and 86 per cent of partners of selected male respondents provided valid responses on their provision of support to their own parents. Given that most of the missing responses originated in partner-questionnaire non-response, we did not replace these missing values.

We focus on mid-life respondents, defined as the 40-64 age-group. Within this age-group we selected 779 respondents (357 men and 422 women) who live with a working partner, have at least one living non-co-resident parent, have paid work, and have valid observations on the partner's provision of support to his/her parents. Unlike most studies on parent-care and employment, we include men in our analyses, given the relatively high percentage of male part-time workers in the Netherlands (over-all 24 per cent). We selected respondents in dual worker couples for two reasons. Firstly, dual worker couples provide an extraordinary population to study time budget restrictions, given that they need to reconcile not only the paid work of one partner with other activities, but the paid work of two partners. Secondly, we restricted our sample to working respondents to prevent biased estimates in the OLS part of our simultaneous model. Upon the inclusion of non-workers, the distribution of work-hours would be heavily left-skewed due to the high number of zero-hour observations, especially among female respondents, and this would lead to biased estimates. Although estimating a tobit equation could solve this problem, we currently cannot simultaneously estimate a tobit model of work-hours and a probit or logit model of support provision.[13] Developing a new program that would allow this was beyond the scope of preparing this chapter. Alternatively, estimating a tobit and a probit or logit model separately would yield biased estimates due to the endogeneity bias. Finally, we excluded one woman and three men from our sample because they were outliers and their data exercised a disproportional influence on the analyses.

[13] At least, not in STATA (10).

5.5. Method

We simultaneously estimate work-hours and parent-support in a procedure referred to as a two-stage probit least squares estimation for a continuous and a dichotomous dependent variable (Amemiya, 1978; Maddala, 1983; Keshk, 2003), while controlling for household context factors. Such a simultaneous model is suitable for modelling the interrelatedness, or interdependency, between paid work and the provision of parent-support because it takes into account that time spent on each activity can be both cause and consequence of time spent on the other activity, instead of assuming that only one causes the other (Ettner, 1995; Johnson and Lo Sasso, 2000). Given the gender division in society regarding participation in paid work, housework and parent-support, we estimate separate models for men and women.

Given that we have dichotomous information on the provision of parent-support, we use a probit equation to estimate the provision of parent-support and a least squares regression equation to estimate work-hours. This simultaneous model is estimated in two stages (Amemiya 1978; Keshk 2003; Maddala 1983). In the first stage, a probit equation of respondents' provision of parent-support is estimated as well as an OLS regression equation of respondents' work-hours. Both equations are estimated as reduced form models, using all exogenous variables. In the second stage, the structural form equations are estimated, using the predicted values from the first stage as independent variables. Finally, the standard errors of the final estimations are corrected for being based on the predicted values of the endogenous variables rather than on observed values. For a specification of the statistical derivation of the simultaneous model we refer to Amemiya (1978) and Maddala (1983), and for a specification of how it is being programmed with the 'cdsimeq' command in STATA (version 10), we refer to Keshk (2003). The estimated coefficients in the work-hours equation can be interpreted as unstandardized OLS regression coefficients. Given the difficulty to derive substantive conclusions from probit coefficients, we additionally present changes in predicted probabilities of providing parent-support (where relevant), following Long and Freese (2006).

5.6. Measurements

5.6.1. Dependent variables

Table 5.1 lists the means, percentages, standard deviations and extreme values of all variables used in the simultaneous model. The two dependent variables are work-hours and parent-support. The number of work-hours is based on two questions, namely: "Do you have paid work?", and "How many hours do you actually work per week?" We included the work-hours of all respondents who have paid work of more than 0 hours per week. To reduce the disproportional influence of 6 women and 24 men with work-hours between 60 and 80 we constrained women's work-hours to 50 and men's hours to 60.

Given that previous studies have shown that men provide different kinds of parent-support than women (Horowitz, 1985; Stone *et al.*, 1987), we include both help with types of parent-support often labelled as 'typically female', and help with types of parent-support often labelled as 'typically male'. Parent-support was based on the questions "In the last three months, did you give help to (name) with housework, such as preparing meals, cleaning, fetching groceries, doing the laundry?" and "In the last three months, did you give help to (name) with practical matters such as repair work in and around the house, lending things, transportation, moving things?" The two questions were asked separately for the mother and the father of the respondent, provided each parent was alive and not co-resident. The answer categories to these questions were: "none", "once or twice" and "several times". Parent-support (one=yes) pertained to answering "several times" to both questions, regarding at least one parent.

5.6.2. Independent variables

The partner's contribution to housework was based on the question in the primary respondent's self-completion questionnaire "How would you describe the division of household tasks between you and your partner? Please indicate for each of these tasks who usually does them: Preparing meals; fetching groceries; tidying and cleaning; paper work, bills, accounts and finances; odd jobs in and around the house", with a Likert-type five point answering scale ranging from "always you" to "always your partner". The partner's contribution to *routine* housework reflected the mean sum-score regarding the partner's contribution to preparing meals, groceries, and cleaning. The partner's contribution to *occasional* housework reflected the mean sum-score regarding the partner's contribution to paper work and odd jobs in and around the house. The higher the respondent scores on these two indicators, the larger the partner's

contribution is, with 0 indicating that the respondent does all housework, and 4 indicating that the partner does all. *Partners' work-hours* reflected the partner's actual (not contractual) work-hours of partners with paid jobs. This information was derived from the partner if (s)he was present during the primary respondent CAPI, otherwise from the primary respondent. *Partners' provided parent-support* (one=yes) when they reported in their self-completion questionnaire that they had helped at least one parent "several times" in the past three months with housework and/or practical matters. The questions on which this information is based were phrased identically to those posed to primary respondents. *Child helps with housework* (one=yes) was an affirmative response to each of the three items of the question "Has your oldest co-resident child helped you with the following household chores in the past week: Washing the dishes, fetching the groceries, tidying up and cleaning?" This question was only directed to respondents with an oldest child aged six years or older. Respondents without children, without co-resident children or with co-resident children below the age of six were assigned the value zero on this dummy variable. Furthermore we included the total *number of biological, step- and adopted children*, and two dummy indicators that the *youngest co-resident child is below the age of 12* (one=yes), or 12 years and older (one=yes), with respondents without (co-resident) children as the reference category.

5.6.3. Control variables

In both equations we included one set of control variables that we expected to influence both work-hours and support-provision. This set included *age older than 55 years* (one=yes), *effective years of schooling*, based on the respondent's highest-level diploma, *outsourcing domestic help* (one=yes) based on the question "Do you pay someone to help you with certain household duties?", *health limitations* (one=yes), based on the question "Are you restricted in your daily activities because of health deficiencies?", and *gender-role egalitarianism* (women: Cronbach's α=0.75, men: α=0.71), based on four (reverse coded) items about gender-roles with a five-point Likert-type answering scale, such as: "A woman should quit her job when she gives birth to children". The higher the score on this scale is, the more egalitarian respondents' attitudes towards gender roles are. Furthermore, as indicators of the financial interdependencies within couples we included the *partner's relative wage,* which is the partner's hourly wage divided by the respondent's hourly wage, and the *partner's income*, which is the partner's total net monthly income from paid work and social benefits,

Table 5.1. Unweighted means, percentages, standard deviations and lowest and highest values, women[a] and men[b] age 40-65, working, living with working partner, having at least one living parent

	Women				Men			
	M/%	**SD**	**Low**	**High**	**M/%**	**SD**	**Low**	**High**
Independent variables:								
Work-hours	25.26	10.28	3.00	50.00	42.46	8.78	5.00	60.00
Provides parent-support (1=yes)	19%	0.39	0.00	1.00	17%	0.38	0.00	1.00
Partner characteristics:								
Contribution routine housework	1.05	0.72	0.00	3.67	2.74	0.72	0.33	4.00
Contribution occasional housework	2.37	0.84	0.50	4.00	1.26	0.80	0.00	3.50
Provides parent-support (1=yes)	15%	0.36	0.00	1.00	22%	0.41	0.00	1.00
Work-hours	41.23	9.43	4.00	90.00	23.35	9.69	3.00	56.00
Child characteristics:								
Helps with housework (1=yes)	15%	0.36	0.00	1.00	15%	0.36	0.00	1.00
Number of living children	2.03	1.12	0.00	6.00	2.17	1.11	0.00	7.00
Age youngest co-resident child:								
0-11 yrs	33%	0.47	0.00	1.00	39%	0.49	0.00	1.00
≥12 yrs	32%	0.47	0.00	1.00	33%	0.47	0.00	1.00
Control variables:								
Age 55-64 years (1=yes)	8%	0.27	0.00	1.00	9%	0.29	0.00	1.00
Uses paid household help (1=yes)	29%	0.45	0.00	1.00	25%	0.43	0.00	1.00
Health limitations (1=yes)	0.16	0.37	0.00	1.00	0.15	0.36	0.00	1.00
Schooling years	12.32	2.78	5.00	20.00	12.93	3.11	6.00	20.00
Gender-role egalitarianism	4.35	0.59	1.50	5.00	4.09	0.65	2.25	5.00
Partner's relative hourly wage	1.50	3.32	0.15	66.67	0.92	0.80	0.05	11.77
Partner's monthly income (log)	7.56	0.43	5.61	8.29	6.75	0.63	4.87	7.92

Work-hours equation- specific controls:								
Years in labour force	26.17	7.66	1.00	48.00	27.28	6.75	12.00	47.00
Benefit income (log)	0.22	1.11	0.00	7.44	0.24	1.22	0.00	7.60
Work ethic	2.85	0.65	1.00	4.75	3.10	0.62	1.00	4.75
Support equation- specific controls:								
Filial obligation	2.70	0.65	1.00	4.50	2.83	0.66	1.25	4.75
Both biological parents alive (1=yes)	45%	0.50	0.00	1.00	44%	0.50	0.00	1.00
Any biological parent age > 80 years (1=yes)	30%	0.46	0.00	1.00	36%	0.48	0.00	1.00
Number of sisters alive	1.39	1.33	0.00	7.00	1.47	1.37	0.00	9.00
Distance to at least one parent ≤ 25km (1=yes)	32%	0.47	0.00	1.00	31%	0.46	0.00	1.00

[a] Number of observations: 422.
[b] Number of observations: 357.

which we log-transformed to correct for its non-normal distribution. We replaced invalid 0 values on the respondent's hourly wage among 11 female respondents and 8 male respondents with a stratified group mean, depending on the respondent's classification into one of 18 groups based on sex, age and level of education. We replaced missing and invalid 0 values with a stratified group mean on the partner's hourly wage and total income among 53 female respondents and 40 male respondents in a similar fashion.

In the work-hours equation we included as equation-specific controls: The number of y*ears in the labour force* as an indicator of labour market attachment, the *respondent's income from benefits*, log-transformed to correct for non-normality, as a disincentive to work for pay, and *work ethic*, based on four Likert-type items about work and duty (women: Cronbach's α=.69, men: α=.65), such as "Work should always take first place, even if that means less leisure time". The higher the score on this scale is, the stronger respondents' work ethic is.

In the parent-support equation we included as equation-specific controls: Having *two living biological parents* (one=yes) rather than one and the number of living biological *sisters* as two indicators of presence of alternative support-providers, having at least one *parent aged older than 80* years (one=yes), as a proxy of help needed by parents, and *filial obligation* (women: Cronbach's α=.67, men: α=.68), based on four Likert-type items such as: "Children should take unpaid leave to take care of their ill parents". The higher the score on this scale is, the stronger respondents' sense of filial obligation is. Finally, we controlled for living within a *geographical distance* of 25 kilometres from at least one biological parent.

5.7. Descriptive results

A substantial minority of the men and women in dual worker couples in our sample provides support to one or both biological parents, namely 17 per cent of the men and 19 per cent of the women (table 5.1). Although women provide parent-support somewhat more often than men, the gender difference is quite small. This may be related to the fact that we only consider men and women with paid jobs. The gender difference in support provision between the partners of respondents is somewhat larger, with the female partners of our male respondents more often providing support to their own parents (22 per cent, table 5.1) than the male partners of our female respondents (15 per cent, table

5.1). The women in our sample work fewer hours on average than the men, and women more often have a full-time working partner than men. These gender differences are in line with recent statistics on the Dutch labour market (Cuijpers *et al.*, 2006). Women and men equally often report to receive substantial help from their oldest child in the household (15 per cent). Both male and female support-providers work somewhat fewer hours than their counterparts who do not provide support, but these differences are small and do not reach statistical significance (*table 5.2*).

5.8. Multivariate results

5.8.1. Hypothesis 1: Interdependency work-hours and parent-support

Contrary to our first hypothesis, we find no relationship between work-hours and parent-support, among women or men, in our simultaneous model (*table 5.3* and *table 5.4*). We find that parent-support has no impact on work-hours (table 5.3), and work-hours have no impact on parent-support (table 5.4). This also applies to the baseline models without the household members' characteristics (results not shown).

5.8.2. Hypothesis 2: Time constraints by activities of partner

The results generate limited support for the second hypothesis. In line with the time budget constraint principle, both women and men work more hours the more their partners contribute to routine housework (table 5.3). This suggests that the division of routine housework between household members plays an important role in men and women's individual allocation of time to paid work. However, in contradiction to the time constraints principle of NHE, men work *more* hours, rather than less, the more hours their partners work (table 5.3).

Table 5.2. Weighted average work-hours by provided support to parent(s), women[a] and men[b] age 40-65, working, living with partner, having at least one living parent

	Women	**Men**
No support	25.40	42.77
Support provided	24.04	42.30

[a] Number of observations: 422 (weighted: 378.49).

[b] Number of observations: 357 (weighted: 418.34).

[c] Among neither men nor women did the tested group differences (support versus no support) reach the five per cent significance level.

Table 5.3. Unstandardized OLS coefficients and standard errors of work-hours equation in simultaneous model, women[a] and men[b] age 40-65, working, living with working partner, having at least one living parent

		Women				Men		
Dependent variable: Work-hours		**b**		**SE**		**b**		**SE**
Independent variables:								
Provides parent-support (1=yes)	-	1.93		1.45	-	1.79		1.03
Partner characteristics:								
Contribution routine housework		3.91	***	0.69		3.56	***	0.69
Contribution occasional housework	-	0.14		0.58		0.52		0.59
Provides parent-support (1=yes)	-	0.13		1.29	-	1.03		1.11
Work-hours		0.09		0.05		0.23	***	0.07
Child characteristics:								
Helps with housework (1=yes)		0.48		1.33		0.40		1.33
Number living children	-	1.05	*	0.46		0.27		0.47
Age youngest co-resident child (*ref. no (co-resident) children*)								
Age 0-11 years (1=yes)	-	4.50	***	1.53		0.06		1.45
Age 12 years and older (1=yes)	-	1.66		1.29		0.06		1.41
Generic control variables:								
Age 55-64 years (1=yes) (*ref. 40-54 years*)		0.46		1.91		0.61		1.96
Uses paid household help (1=yes)		2.33	*	1.07		0.32		1.10
Health limitations (1=yes)	-	0.10		1.29	-	0.40		1.31
Schooling years		0.95	***	0.19		0.15		0.17
Gender role egalitarianism		3.41	***	0.87	-	0.15		0.78
Partner's relative hourly wage		0.37	**	0.14		0.88		1.02
Partner's income (log-transformed)	-	3.20	***	1.09	-	3.12	*	1.15
Equation-specific control variables:								
Years in labour force		0.10		0.07		0.14		0.09
Benefit income (log-transformed)	-	1.00	*	0.43	-	2.03	***	0.42
Work ethic		0.64		0.70		1.86	*	0.82
Constant		12.15		9.51		34.01		8.90

[a] Number of observations: 422.
[b] Number of observations: 357.
* $p \leq 0.05$ *** $p \leq 0.001$.

Moreover, men are *less*, rather than more, likely to provide support to parents, the more their partners contribute to routine housework (table 5.4). Men whose partners do not contribute to routine housework have a 57 per cent probability to provide parent-support, compared to only 3 per cent among men whose partners do all routine housework (*table 5.5*). Furthermore, it is quite striking that none of the partner's activities have an impact on women's provision of parent-support (table 5.4).

Table 5.4. Unstandardized probit coefficients and standard errors of equation of provided support to parent(s) in simultaneous model, women[a] and men[b] age 40-65, working, living with working partner, having at least one living parent

		Women				Men		
Dependent variable: Parent-support		**Coef.**		**SE**		**Coef.**		**SE**
Independent variables:								
Work-hours		0.02		0.06		0.09		0.05
Partner characteristics:								
Contribution routine housework	-	0.15		0.26	-	0.55	*	0.26
Contribution occasional housework	-	0.16		0.09		0.05		0.13
Provides parent-support (1=yes)		0.23		0.21	-	0.07		0.24
Work-hours		0.00		0.01	-	0.04		0.02
Child characteristics:								
Helps with housework (1=yes)	-	0.04		0.23		0.45		0.27
Number living children	-	0.05		0.10	-	0.10		0.10
Age youngest co-resident child (*ref. no (co-resident) children*)								
Age 0-11 years (1=yes)	-	0.26		0.35		0.22		0.32
Age 12 years and older (1=yes)		0.08		0.24		0.46		0.29
Generic control variables:								
Age 55-64 years (1=yes) (*ref. 40-54 years*)		0.09		0.29		0.17		0.36
Uses paid household help (1=yes)		0.07		0.22	-	0.11		0.24
Health limitations (1=yes)	-	0.02		0.22		0.24		0.28
Schooling years		0.00		0.06	-	0.02		0.04
Gender role egalitarianism		0.14		0.23		0.14		0.18
Partner's relative hourly wage	-	0.01		0.04	-	0.69	*	0.35
Partner's income (log-transformed)		0.06		0.25		0.44		0.33
Equation-specific control variables:								
Filial obligation		0.03		0.12		0.38	*	0.17
Both biological parents alive (1=yes)	-	0.58	***	0.20	-	0.13		0.25
Any biological parent aged > 80 years (1=yes)		0.36		0.18		1.09	***	0.25
Number living biological sisters	-	0.09		0.07	-	0.04		0.08
Distance to at least one parent ≥ 25km (1=yes)		0.07		0.21	-	0.01		0.27
Constant	-	1.78		1.87	-	6.85		3.43

[a] Number of observations: 422.
[b] Number of observations: 357.
* $p \leq 0.05$ *** $p \leq 0.001$.

5.8.3. Hypothesis 3: Time constraints by co-resident children

We find partial confirmation of our third hypothesis on children's role with regard to time spent on paid work and parent-support. The oldest child's help with housework does not have an impact on women's and men's work-hours or provision of parent-support. However, women work one hour less with each additional child they have, and they work 4½ hours less when they have children below the age of 11 years.

Table 5.5. Predicted probabilities of providing support to parent(s)[a], women[b] and men[c] age 40-65, working, living with working partner, having at least one living parent

	Probability at:		Probability change:	
Independent variables:	**x=min**	**x=max**	**Min-max**	
Women				
Both biological parents alive (1=yes)	0.24	0.10	-	0.14
Men				
Partner's contribution routine housework	0.57	0.03	-	0.54
Partner's relative hourly wage	0.29	0.00	-	0.29
Filial obligation	0.04	0.34		0.30
Any biological parent aged > 80 years (1=yes)	0.06	0.33		0.27

[a] The predicted probabilities are derived from the probit coefficients that reached the five per cent significance level in the simultaneous model presented in table 5.4. All other independent variables were held constant at their mean.
[b] Number of observations: 422.
[c] Number of observations: 357.

5.8.4. Impact of conventional control variables

Most relationships we find between conventional control variables and, respectively, work-hours and the provision of parent-support, are in line with the literature on the determinants of work-hours and support-provision. Both women and men work fewer hours the higher their benefit income is, and the higher their partner's absolute income is (table 5.3). Women work more hours when they use paid household help, the more years of schooling they have, and the more egalitarian their gender-role attitudes are (table 5.3). Men work more hours the stronger their work ethic is (table 5.3). Furthermore, women are about two and half times less likely to provide support when both of their parents live, compared to when they have only one remaining parent (table 5.4 and table 5.5). Men are almost 9 times as likely to provide support when they have high filial obligation compared to when they have low filial obligation, and they are about 5 times as likely to provide support when they have a parent older than 80 years compared to when they have younger parents (table 5.4 and table 5.5). In contradiction to what NHE theory would predict us, women work slightly *more* hours the higher their partner's relative hourly wage is (table 5.3), and men's likelihood to provide parent-support decreases the higher their partner's relative hourly wage is (table 5.4).

5.9. Discussion

This chapter has evolved around two central arguments. Based on the notion of time budget restrictions from micro-economic theory, our first argument has been that the provision of parent-support and work-hours are interdependent activities within individuals' time budgets. We have attempted to take this interdependency into account by using a simultaneous estimation technique. The second central argument has been that men's and women's participation in paid work and in parent-support not only depends on their own activities, but also on the activities of their household members, given the time budget restrictions posed by partners and co-resident children. We have taken this household context into account by controlling for the impact of partners' and children's activities, and children's presence and age.

5.9.1. No conflict between work-hours and parent-support

Although time pressure in midlife may not be as high as in the earlier phase of family formation, many middle aged have to reconcile competing demands on their time, given that they are at the peak of their careers, and the majority combines paid work with a partner-relationship and dependent children. This especially applies to middle aged men and women in dual earner/worker households, given that both partners have to reconcile paid work with unpaid labour and leisure. Based on the principle of a limited time budget, we expected that the provision of parent-support might increase time pressure and form a reason for middle aged men and women to cut back on work-hours, and that those who work a comparatively high number of hours would less easily engage in parent-support than those who work comparatively few hours. These expectations were in accordance with the findings of two earlier studies in the Netherlands, one of which was a local area study, and the other a qualitative study (Dautzenberg *et al.*, 2000; Van Doorne-Huiskes *et al.*, 2002). In addition to the time constraints involved, we expected that the emotional strain associated with providing parent-support, and the fact that those beyond age 55 face retirement might also contribute to a conflict between parent-support and paid work in middle age.

However, the results from our simultaneous model yield no empirical support for such a conflict among middle aged men and women in dual worker couples in the Netherlands, given that we have found no relationship between work-hours and providing parent-support in either of the two equations in our simultaneous model. Our results suggest that the often expressed fear of

declining support for the elderly due to the increasing female labour force participation rate has little empirical ground, at least, among dual earner couples in the Netherlands at this point in time. Our finding that men's work-hours are irresponsive to their provision of parent-support is in line with the consensus in the literature that men's work-hours are rather inelastic to care and housework demands placed on them (Kooreman and Wunderink, 1996; Sanchez and Thomson, 1997; Coltrane, 2000; Maume, 2006).

We have several explanations for the lacking work-support conflict. Firstly, middle aged workers' paid work might not pose a sufficiently substantial time claim to prevent them from providing parent-support. This explanation is especially likely to apply to middle aged women, given the prevalence of part-time work among women in the Netherlands. In accordance with national statistics, the majority of female respondents in our sample works part-time too (81 per cent, of which 20 per cent work fewer than 16 hours, and 61 per cent work 16-34 hours per week). Dutch women's part-time work in midlife provides them with more opportunity to combine their jobs with other responsibilities than women in countries where full-time work is more prevalent, such as the USA or France. Possibly, having at least one weekday off from work is sufficient to accommodate for the provision of parent-support. If this is true, the fact that the majority of Dutch women work part-time and that all part-timers have at least one weekday off from work, regardless of how many hours they work, may explain why we do not find the likelihood to provide parent-support to vary according to women's number of work-hours. In turn, this lacking contrast between groups of part-time workers with regard to their likelihood of providing parent-support may overshadow any contrast between part-timers and full-timers. The prevalence of part-time work among the partners of men in our study (66 per cent, not shown) might also help to explain why we do not find a conflict between work-hours and providing parent-support among the men. The partners of these men might take over other tasks, such as housework and parenting, thus easing their men's time expenditures on both paid work and parent-support.

Secondly, we might have underestimated any conflict between paid work and providing parent-support because our sample did not include non-working middle aged men and women, who might be more likely to provide parent-support than their working peers. Some non-working might have quit their paid jobs earlier on because of their responsibility for providing support to parents, possibly in combination with other unpaid tasks such as housework, parenting,

and the provision of support and care for other family members, friends, or neighbours. Any underestimation of the work-support conflict is particularly likely to affect women, given that about one third of the female respondents otherwise eligible for inclusion in our sample had no paid work (most were homemakers), whereas this applied to only about ten per cent of the male respondents (most were retired). Previous studies yield mixed reports on the question whether working women are less likely to take up daily care-giving than non-working women. On the one hand aggregate European data suggest that this is the case (Ogg and Renaut, 2006), and the authors of a local area study in the Netherlands suggested that middle aged children, especially daughters, without jobs or with part-time jobs more easily engage in care-giving than their (full-time) employed siblings because they are more available (Dautzenberg *et al.*, 2000). On the other hand, studies in the USA and Canada denounce that working women are less likely to take up daily care-giving than non-working women (Moen *et al.*, 1994; Barnes *et al.*, 1995; Pavalko and Artis, 1997), emphasizing that the provision of help to parents tends to be responsive to a demand for such help, regardless of whether middle aged women have jobs or not. The alternative to our simultaneous model would be to estimate a tobit model of work-hours and a probit model of providing support. The advantage of these models would be that they can include the non-working. However, the disadvantage of these models is that they cannot estimate work-hours and probability of providing parent-support simultaneously, and consequently suffer from the endogeneity bias.

A third explanation for our results can be that our measure of support-provision to parents captures a range of time expenditures on support-provision that might be too wide. Our measure distinguishes between those who have provided parent-support 'several times' in the past three months and those who provided parent-support 'once or twice' during that period, or never. In this way, our measure distinguishes the least supportive middle aged men and women from those who provide support with some regularity. Yet, given that we do not have detailed information on respondents' time spent on providing parent-support, the measure may group together support-providers who spend several hours each week on providing support and those who spend only several hours each month, and all time expenditures in between. There might be a strong relationship between work-hours and support-provision among respondents who provide support relatively often, and no relationship or a weak relationship between work-hours and support-provision among respondents who provide support relatively seldom. Possibly, the former strong relationship is watered down by

the latter weak relationship because our measure groups these different intensities of support-provision together. This measurement artefact can explain why we do not find any relationship between work-hours and the provision of parent-support — rather than suggesting that the provision of instrumental support to parents does not form a sufficiently substantial time and energy claim on middle aged workers to prevent them from working the amount of hours they would work otherwise. A suggestion for improvement in future research on the interdependency between work-hours and the provision of parent-support is to incorporate a detailed measure of time spent on parent-support.

A fourth explanation for our finding can be that middle aged workers accommodate the provision of parent-support by decreasing time expenditures on other activities than paid work, such as housework, childcare, parenting, leisure and sleep. Although we included the partners' relative time expenditures on housework in our analyses and although we included the number of children and the presence of co-resident children of different age groups, we could not include measures of absolute time spent on these activities.

A final explanation for our finding can be that middle aged workers alleviate time budget conflicts between paid work and providing support by using (paid) help that we had no measure of, such as their siblings', partner's, children's or professionals' help with providing support to the respondent's parents, (paid) help with maintenance, laundry service, ready-made dinners, and so on. Recent research in France and Israel suggests that most family-members who provide informal elder-care are supported by professional or formal help (Litwin and Attias-Donfut, 2009), and this may also apply to middle aged men and women who provide instrumental *support* to their elderly parents. Future research can shed more light on these issues when it employs complete information about use of professional services, parent-support provided by all siblings of respondents, and the extent to which men and women assist their partners with the provision of parent-support. Research in the USA suggests that although men are involved in parent-care to both their own and their spouses' parents, women more often provide care to their parents-in-law than men (Szinovacz and Davey, 2008).

5.9.2. Impact of household members on work-hours and parent-support

Our findings generate partial support for the micro-economic perspective on intra-household dependencies with regard to paid work and parent-support. Our results suggest that midlife men and women spend more time in the labour force when their partners free them from routine housework. Additionally, women

spend more time in the labour force the fewer children they have and the older their children are. However, the help with housework provided by the oldest co-resident child is not related to women's or men's work-hours or provision of parent-support.

Furthermore, the labour division between partners is partly subject to other mechanisms besides time budget restrictions, given that we found that men work slightly more hours the more hours their partners work, which contradicts NHE theory. An alternative explanation for this finding is that the found relationship is primarily propelled by dual worker couples in which both partners work full-time. Previous research based on survey data collected by Statistics Netherlands suggests that women in dual worker couples are more likely to work full-time when their partner works full-time (Verbakel, 2008). This association may point at educational homogamy. The majority of dual full-time worker couples in the Netherlands are couples in which both partners have university degrees (Van Gils, 2007). These highly educated tend to select highly educated partners who can share their social and human capital because they have similar career perspectives and ambitions (Bernasco, 1994; Verbakel, 2008). Consequently, educational homogamy increases the likelihood that the partners of full-time workers also have full-time jobs.

5.9.3. Gendered patterns

Our findings suggest that Dutch women's provision of parent-support is virtually independent of their work-hours, demographic characteristics, socio-economic background, and their household members' activities and characteristics, whereas men's support-provision depends on several contextual factors. This underscores the stereotypical gender pattern in which women's role as 'family helper' is normative, whereas this role is not normative for men. Women's provision of parent-support only depends on one characteristic, namely, women are less likely to provide support when they have two living parents compared to when they have only one remaining parent. This finding resonates with previous evidence that daughters become primary care-givers to parents once the number one primary care-giver, the other parent, has become unavailable (Spitze and Logan, 1990).

In contrast to the women in our sample, men's provision of parent-support depends on multiple contextual and individual characteristics. Firstly, men's support-provision depends on whether their partner frees them from household obligations. Secondly, men's support-provision depends on their partner's

relative hourly wage. This finding resonates with the gender display thesis, which poses that when couples break stereotypical gender roles by women out-earning their male partners, couples compensate for their cross-gender behaviour by assuming a stereotypically gendered labour division in the realm of housework (Brines, 1993, 1994; Bittman *et al.*, 2003; Tichenor, 2005). Our findings suggest that men might also use such 'gender display' in the realm of parent-support to compensate for their wives' earning power. By abstaining from providing parent-support, men can emphasize their masculine identity, in spite of their female partners earning more. Thirdly, we found that men are more likely to provide parent-support, the stronger their sense of filial obligation is. This finding also resonates with American research findings that felt obligation particularly stimulates sons' support-provision to parents (Silverstein *et al.*, 1995). Finally, men are more likely to provide parent-support when at least one parent has reached old age (beyond 80 years), which is when need for help is likely to increase due to the onset of health problems (Perenboom, 2005; Lafortune and Balestat, 2007; Nusselder *et al.*, 2008).

6. Conclusions and discussion

6.1. Introduction

This thesis is framed against the backdrop of a persistent gendered labour pattern in the Netherlands in the past decades. With gendered labour pattern we refer in the first place to the gender differences in the realm of *unpaid* labour. Although in 2005 women spent on average four hours less on housework and care for household members than in 1975, which is a 14 per cent decrease, and men spent 3.5 hours more, which is a 41 per cent increase, women continue to carry out most housework and care for household members. On average, women today spend twice as much time (25.5 hours per week), on housework and care for household members than men do (12.1 hours per week), and this gendered division of unpaid labour has hardly changed in recent years (Breedveld and Van den Broek, 2006; Cloïn and Hermans, 2006). Secondly, with the gendered labour pattern we refer to gender differences in the realm of *paid* labour. In contrast to the stark increase in women's labour force participation since the 1970s, the average number of hours worked outside the home by women aged 30-50 years has *not* increased across cohorts of women born between 1925 and 1985 during the time period 1980-2004 (Román *et al.*, 2007). The explanation for these two seemingly contradictory trends is that the increase in women's labour force participation is almost entirely accounted for by an increase in the number of women working part-time (Hartog and Theeuwes, 1985; Cuijpers *et al.*, 2006). Presently, 75 per cent of employed women work in part-time jobs of two to three days per week, resulting in a relatively low current average of 25 weekly work-hours. In contrast, 76 per cent of employed men work full-time, amounting to an average work-week of 37 hours (Cuijpers *et al.*, 2006; Eurostat, 2008b).[14]

[14] Given that Statistics Netherlands does not count those who work fewer than 12 hours per week as employed, the average of 25 weekly work-hours among women in 2005 excludes women who work less than 12 hours per week. This means that the average of *all* working women including those working less 12 hours is lower than 25 hours, because 16 per cent of all working women work less than 12 hours (577,000 women). To a somewhat lesser extent this also applies to men, because 7 per cent of all working men work less than 12 hours per week (289,000 men).

The gender gap in work-hours in the Netherlands is the largest in Europe, in spite of the relatively large share of part-time working men compared to other countries (Keuzenkamp and Steenvoorden, 2008). As a result, men continue to fulfil the role of prime breadwinner in most Dutch households, which perpetuates a lifelong gender gap in income and a larger percentage of women in poverty than men (Bos and Merens, 2006; Cuijpers *et al.*, 2006). In addition, the part-time divide in the Netherlands leads to fewer career opportunities and lower occupational mobility among women than men (De Ruijter *et al.*, 2003), and an under-representation of women in positions of institutional, political, and corporate decision-making (Merens, Hermans and Cuijpers, 2006).

The persistence of a gendered pattern with regard to unpaid labour and work-hours in the Netherlands is remarkable, because it runs counter to several societal trends in the Netherlands that have expanded women's opportunities for occupational mobility, namely the increased egalitarianism in both men's and women's gender-role beliefs (Cloïn and Hermans, 2006), women's increased access to (higher) education (Van Herpen, Lalta and Merens, 2006), newly drawn legal barriers against sex-discrimination in 1980 and 1994 (Commissie Gelijke Behandeling, 2009), and the expansion of the service and care labour market sectors in which large percentages of women work (Kox and Rubalcaba, 2004; Prismant, 2008). The conventional explanations for the increase in women's labour market participation, namely women's increased educational achievement and consequently their increased wage rates, delayed childbirth, lower number of childbirths, and delayed and lowered occurrence of marriages (Hartog and Theeuwes, 1985; Drobnic *et al.*, 1999; Jansen and Kalmijn, 2002), are insufficient to explain why women continue to work few hours and to perform the majority of housework. Given that women today are higher educated, give birth at later ages and to fewer children, and are less often married than ever before (Van Nimwegen and Beets, 2006), their number of work-hours should have increased over time.

The mechanism of intergenerational behavioural role modelling provides an alternative explanation for the persistence of gendered labour patterns. As part of social learning theory, the mechanism of parental role modelling entails that the behaviours of parents in the realms of housework and paid work in childhood function as a behavioural example to which men and women can revert in adulthood (Bandura, 1977). Rather than assuming precise imitation of specific behaviours, role modelling theory predicts that role models offer a guideline, or a script, for particular behaviours in particular contexts (Gupta, 2006a). For

example, among women and men who grew up with parents who shared housework equally, an egalitarian housework division is likely to be a prominent scenario among all scenarios they can choose from, once they come to share a household with a partner in adulthood. Parental behavioural role modelling offers an explanation for the persistence of gendered labour patterns in the sense that the passing down of gendered behavioural examples from generation to generation is likely to make men and women continue to revert to the gendered behavioural script that women perform housework and kin-care, and that men guarantee the family income.

In this thesis we have addressed behavioural role modelling as one of three alternative explanations for women's and men's work-hours and their contributions to housework and kin-care. All of these explanations address intergenerational transfers, reflecting three mechanisms through which the behaviours of parents can influence the behaviours of their children in different stages of the life course, namely in childhood, early adulthood, and midlife (see figure 1.1). Given that conventional explanations of gendered labour patterns tend to focus on the characteristics of individuals, couples and households, the notion of intergenerational transfers opens up alternative perspectives on the determinants of labour patterns because it extends this focus beyond the (couple) household, including processes that take place between individuals of different generations.

Our central research question has been: *What role do intergenerational transfers play in the paid and unpaid labour patterns of men and women in the Netherlands?* The four intergenerational transfers studied are represented by the four arrows in figure 1.1. The process of behavioural role modelling by parents in men's and women's childhood is represented by the first arrow in figure 1.1. We have applied the mechanism of behavioural role modelling to men's and women's contributions to housework and childcare in chapter 2, and to women's labour market participation and work-hours in chapter 3.

The second mechanism of intergenerational transfer we studied is the transmission of resources from parents to children, represented by the second arrow in figure 1.1. The literature on social mobility and stratification poses that the educational and occupational status of parents partly predetermines their children's educational and occupational success, due to the financial, social and human capital that parents transfer to their children. Based on this mechanism of resource transfers we argued that working mothers can share more work-related

resources such as skills, information, contacts, and finances with their daughters than homemaking mothers. This transmission of resources increases women's opportunities in the labour market, and consequently stimulates the labour force participation and number of work-hours of women who grew up with a working mother. Therefore the mother's early labour market participation is likely to have a positive impact on their daughters' labour market participation and work-hours in adulthood. We have applied the mechanism of intergenerational resource transmission to women's work-hours and labour force participation in chapter 3.

Apart from intergenerational transfers in childhood, intergenerational transfers take place in early adulthood and midlife too. In chapters 4 and 5 we have addressed intergenerational transfers of instrumental support as a third alternative explanation for the gendered pattern in the realm of paid labour. We have addressed transfers of support from grandparents to parents of young children, called 'downward' transfers as they go down the generational line (third arrow, figure 1.1), as well as 'upward' transfers of support from middle aged children to elderly parents (fourth arrow, figure 1.1). In families with young children, grandparents are the most popular providers of informal non-parental childcare, and we have found indications in the literature that grandparents might also help parents out with housework. Following the micro-economic principle of time budget restrictions, we hypothesized in chapter 4 that receiving such downward support from grandparents is likely to expand parents' time budgets for paid work — especially among mothers, given that they tend to carry out the lion's share of childcare and housework. Furthermore, women and men do not only *receive* instrumental support from parents, but they can also *provide* instrumental support to parents, for example with routine housework, errands, paperwork, and transportation. Such upward transfers of instrumental support tend to take place in middle age, when parents have reached old age and their need for help is likely to increase. Given that women have been found to provide instrumental support to parents more often than men (Spitze and Logan, 1990; Silverstein *et al.*, 1995), it is likely that upward support-provision constrains women's time budgets for paid work more than men's. In chapter 5, we have explored the provision of support to elderly parents as an explanation for gendered labour patterns in midlife.

The empirical analyses for this study have been based on data of the Netherlands Kinship Study Panel, a nationally representative survey of family relationships in the Netherlands. For the analyses presented in chapters 3 to 5 we used first

wave data of primary respondents and their partners collected between October 2002 and December 2004, whereas for the analyses presented in chapter 2 we used second wave data of primary respondents collected between September 2006 and July 2007. For further information on the data collection, response rates, and used samples we refer to the overview section of used data in chapter 1 (paragraph 1.5, page 39) and the specific sections on data, samples, and measurements in chapters 2 to 5.

6.2. Summary of findings

6.2.1. Impact of the parental role model in childhood on men's and women's contributions to housework and childcare

In chapter 2 we studied to what extent parental role modelling in childhood has a lasting impact on women's and men's contributions to housework and to childcare in adulthood (first arrow, figure 1.1). The central research question was: *To what extent do adult men's and women's contributions to routine housework, occasional housework and childcare in the Netherlands depend on their parents' contributions to housework and childcare in childhood?* By addressing not only routine housework, such as cooking, cleaning, grocery shopping, laundry, and ironing, but also occasional housework, such as paper work and finances, and maintenance jobs in and around the house, and childcare, we aimed to expand previous insights into the parental role modelling of unpaid labour. Moreover, by including occasional housework we aimed to assess whether seldom- studied occasional household chores that are typically completed by men are subject to similar reproduction patterns as the often-studied routine chores which are typically completed by women. Our nationally representative sample of Dutch men and women allowed us to cross-validate previous findings among local and national samples of American men and women in a different cultural, economic and welfare state context.

In line with our expectations, our results suggested that women and men partly model their contributions to both routine housework and to occasional housework on their parents' task-division of housework in childhood. The larger their mothers' contribution to routine housework was compared to their fathers in childhood, the larger women's contribution to routine chores was compared to their male partners, and the smaller men's contribution to routine housework was compared to their female partners. We found the same intergenerational pattern with regard to parents' and children's contributions to occasional household chores. Our results suggested that the found relationships between

parents' early and children's current contributions to housework were distinct from the impact of other early life course characteristics on children's contributions to housework in adulthood, such as parents' educational achievement, parental divorce, and the importance of religion in the parental home.

In contrast to our expectations, we found no indication of parental role modelling with regard to men's and women's contributions to childcare. Although we had expected that the early parental example would have less impact on women's and men's contributions to childcare than on women's and men's contributions to housework, to find no relationship at all was unexpected. One explanation for this finding is that determinants that we could not measure are more important in explaining men's and women's contributions to childcare than in explaining their contributions to housework. Parents are likely to be more intrinsically motivated to care for their children than to do housework. Moreover, the risks and long-term costs of forgoing childcare are much higher than of forgoing housework, and the rewards of caring for children are likely to be higher and longer-lasting than of doing housework (Sundström and Duvander, 2002; Bulanda, 2004). A second explanation for the lacking impact of the parental role model on men's and women's contributions to childcare in our analyses might be that the measure of the parents' and the respondent's contributions to childcare partly referred to different tasks. The measure of the respondent's contributions to childcare included items on physical care provided to young children, whereas the measure of the parents' contributions to childcare included primarily items on emotional care and advice.

6.2.2. The intergenerational reproduction of women's paid work

In chapter 3 we studied whether the mother's labour market participation in childhood had an impact on women's labour market participation and their work-hours in adulthood (first and second arrows, figure 1.1). The central research question was: *To what extent do daughters who were raised by working mothers work more hours in adulthood than the daughters of homemaking mothers?* Although the relationship between mothers' and daughters' labour market *participation* had been studied before, also in the Netherlands (Sanders, 1997), little was known about the impact of the mothers' labour force participation on daughters' *work-hours*. Yet in the Dutch context it is highly relevant to explore the determinants of women's work-hours, given that gender inequalities in the labour market primarily stem from the gender gap in work-hours. We expected to find a larger impact of the mother's early labour market

behaviour on women's work-hours than on women's labour force participation, given the large variation in women's number of work-hours, whereas the majority of women in the Netherlands are employed today. In line with this expectation, we found that whereas women were *not* more likely to participate in the labour force when their mothers had paid work in childhood, the daughters of working mothers on average worked one and half (all women) to two hours (women with a partner) more per week compared to the daughters of non-working mothers. The inclusion of the mothers' labour force participation in the estimation of women's work-hours significantly improved the model fit. This underlines that the mother's early labour market behaviour provides a complementary explanation for women's work-hours, in addition to the conventional explanations at the individual, couple and household level, such as education, labour market history, marital status, and number and age of children.

6.2.3. Impact of instrumental help from grandparents on work-hours of parents of young children

In chapter 4 we explored the extent to which intergenerational transfers of instrumental support in adulthood shape gendered labour patterns, by studying the relationship between the work-hours of mothers and fathers with young children and the instrumental help with childcare and housework they received from grandparents (third arrow, figure 1.1). Our central research question was: *To what extent do parents with young children who receive grandparent help with childcare and housework work more hours than parents who do not receive such help?* Previous studies in the UK and France focused primarily on the implications of grandparent help with childcare for the labour force participation of mothers (Gray, 2005) in immigrant communities (Dimova and Wolff, 2008). We aimed to expand present insights into the impact of grandparent help on the labour market behaviour of parents by including fathers in addition to mothers, and by studying not only grandparent help with childcare but also grandparent help with routine and occasional housework. Furthermore we studied the impact of grandparent help not only on parents' labour force participation but also on their work-hours, given the prevalence of part-time work among mothers with young children in the Netherlands and the relevance of assessing the determinants of women's work-hours. Other contributions to the present literature were that we tested interactions between received help and various indicators of parents' restrictions and preferences in addition to parents' incomes, and by using a nationally representative sample.

Intuitively, one would expect that grandparent help with *childcare* would have a larger impact on the labour force participation and work-hours of parents with young children than grandparent help with *routine housework*. However, our findings showed precisely the opposite. We found no relationship between grandparent help with childcare and parents' labour force participation or work-hours. This contradicts earlier research in the UK and France, which suggested that mothers, especially low income mothers, were more often employed when they received grandparent help with childcare (Gray, 2005; Dimova and Wolff, 2008). Yet we found that mothers of young children who received grandparent help with *routine housework* had a three per cent higher probability to participate in the labour force, and work about two and half more hours compared to mothers who received no grandparent help with routine housework.

We have proposed several tentative explanations as to why receiving grandparent help with the 'daily grind' seems more effective in freeing time for paid work than grandparent help with childcare. Firstly, grandparents may provide childcare because they want to be involved with their grandchildren, rather than because parents need to outsource childcare. Such an 'excess supply' of grandparent help is less likely to occur with regard to housework. Secondly, grandparent help with housework may save parents a more tangible amount of time and energy than help with childcare, because childcare, especially care for infants, requires a continuous presence and effort, and thus requires parents to step in immediately after grandparents leave. In contrast, when grandparents have cleaned the house and done the laundry, parents can cross these activities off their to-do list for at least a few days. Thirdly, previous studies have suggested that many Dutch mothers tend to arrange their paid work in such a way that they can keep childcare as much into their own hands as possible, which is regarded as an important reason for the prevalence of part-time contracts of two to three days per week among mothers of young children (Portegijs *et al.*, 2006; Portegijs and Keuzenkamp, 2008). It has been suggested that a substantial group of mothers would not work more hours if they could outsource more childcare, because they want to take substantial part in their children's care and upbringing (Pool and Lucassen, 2005; Portegijs *et al.*, 2006; Portegijs and Keuzenkamp, 2008). Apparently, the group of mothers who prefer to keep housework into their own hands even if they could outsource, is negligible. This can explain why receiving grandparent help with routine housework has a significant impact on mothers' work-hours, but receiving grandparent help with childcare does not. Finally, the lacking relationship

between work-hours and grandparent help with childcare might be attributed to a measurement artefact. Although our grandparent help measure distinguishes those who received help 'several times' in the past three months from those who received help 'once or twice' or no help at all, it potentially groups together different frequencies with which grandparent help is received in the category received help 'several times'. Namely, among those who received help 'several times' in the past three months some may have received help several times per week, whereas others may have received help only once in two weeks or once per month. Possibly, a potentially strong impact of receiving intensive help with childcare on work-hours may be watered down by a potentially weak impact of less intensive help.

Building forth on previous work (Gray, 2005; Dimova and Wolff, 2008), we expected that low income mothers would benefit more from grandparent help than other mothers. Therefore we expected that the impact of received grandparent help would have a larger impact on the work-hours of low income mothers than on mothers with medium to high incomes. We also expected that mothers working non-standard hours, mothers with traditional gender-role attitudes and mothers with traditional family norms would benefit more from grandparent help. However, contrary to our expectations we found no differences between mothers along these lines. This suggests that routine housework forms a substantial barrier to spend time in the labour market for *all* mothers of young children, regardless of their financial and work-schedule restrictions, and regardless of traditional gender-role attitudes and family norms. It is unclear how to explain this finding. Possibly, our results somewhat underestimate the role of the moderator variables income, work-schedule, and preferences, due to a measurement artefact. As pointed at previously, the group of grandparent help receivers in our study potentially spans the spectrum from receiving help daily to once in three weeks. This might obscure our assessment of the question whether the same amount of received help has a different impact on different groups of respondents, for example on low and high income mothers.

Finally, our findings underline the gendered dynamics in the reconciliation of paid work, housework, and childcare. Contrary to the results pertaining to mothers, we found that fathers' labour force participation and work-hours do not depend on the help with housework or childcare received from grandparents. This is in line with the often-confirmed elasticity of women's labour market

participation and work-hours in response to household- and family-related characteristics and activities, and of men's inelasticity in that respect.

6.2.4. Interdependency between mid-life adults' work-hours and provision of parent-support

In chapter 5 we explored the relationship between the work-hours of middle aged men and women and the instrumental support they provided to elderly parents (fourth arrow, figure 1.1). Our central research question was: *To what extent are mid-life adults' work-hours and their provision of instrumental support to parents interrelated?* Previous studies predominantly focused on the provision of personal physical *care* to parents in relationship to women's labour market participation, mostly in the context of limited public provisions of elder-care in the USA.

We aimed to contribute to the literature in various ways. Firstly, we focused on instrumental support provided to parents, such as help with housework, errands, paper work, and transportation, rather than on personal parent-care, such as help with bathing, toileting, and feeding. Given that the majority of elderly does not suffer from severe physical limitations during most of old age, the population of elderly that requires help with instrumental activities is larger than the population of elderly that needs intensive personal or physical care. Moreover, in countries such as the Netherlands, UK, and Sweden, the public provisions for elder-care, for example in elder-homes and with home-based services are quite extensive (compared to the USA), which means that the middle aged do not need to provide personal care themselves.

A second contribution to the literature was that we included men in addition to women. This allows us to find out whether men provide substantially less instrumental support to parents, akin to the often-found pattern that men provide less personal care to their own parents than women. Given that the literature on housework has shown that men tend to do tasks that best fit in with a work-schedule whereas women tend to do the time-intensive and repetitive routine chores, it is not unlikely that men make substantial contributions to the lesser time-intensive provision of instrumental support to parents although they contribute little to the more time-intensive care work.

A third way in which we aimed to contribute to the literature was by estimating a simultaneous model on cross-sectional data instead of the often-used uni-directive causal models. Based on micro-economic theory we expected that an

individual's work-hours determine whether (s)he provides parent-support, and that whether an individual provides parent-support also determines his or her work-hours. By estimating work-hours and provision of parent-support simultaneously we were able to take this interdependency into account and overcome the so-called endogeneity bias.

Finally, we aimed to contribute to the literature by taking the household context of middle aged women and men into account. In contrast to previous studies that focused solely on the individual characteristics of middle aged women (and sometimes men), we incorporated measures that reflect to what extent the partner and co-resident children increase time pressure on middle aged women and men, for example by being unavailable to housework and parenting due to full-time paid work, and to what extent they reduce time pressure by contributing to housework.

Our analyses were based on a sample of middle aged men and women in dual earner couples and with at least one living parent, and yielded the following three main findings. In the first place, we found no relationship between work-hours and likelihood of providing support in our simultaneous model. This finding contradicts the micro-economic theory of time budget constraints, which predicts that the larger the time investment in paid work is, the more the time budget for providing parent-support is restricted (all else equal), and vice versa. Apparently, among middle aged women and men who are part of dual worker couples in the Netherlands, providing parent-support does not place a sufficiently substantial time budget constraint on their work-hours, nor does a large time investment in paid work sufficiently constrain their likelihood to provide parent-support.

In chapter 5 we discussed six tentative explanations for this finding. Firstly, time expenditures on instrumental parent-support may not be substantial enough to require support-givers to scale back their work-hours. Possibly, providing support can easily be done after work, on weekends and weekday evenings, without any necessity for middle aged women and men to cut back on work-hours. Given that we do not have information on the absolute time spent on providing support, we cannot verify to what extent this explanation applies.

Secondly, our parent-support measure might capture a somewhat too wide range of time expenditures on providing support, akin to our measure of received instrumental support from grandparents. Consequently, a potentially strong

relationship between work-hours and large time expenditure on support may be watered down by a weak or absent relationship between work-hours and relatively small time expenditures on providing support. A more detailed measurement of time spent on providing support would enable us to differentiate better between different categories of support-providers.

A third explanation for not finding a relationship between work-hours and the provision of parent-support can be that time expenditures on paid work may not sufficiently hamper Dutch middle aged women and men to provide parent-support. This explanation has an intuitive appeal with regard to women, considering that 80 per cent of women in our sample work part-time and consequently have more time for support-provision and other activities than full-time workers. Possibly, the common characteristic that all these part-timers have at least one weekday off from work might be sufficient to accommodate for the provision of parent-support. In turn, this lacking contrast between different categories of part-time workers might overshadow any contrast between part-timers and full-timers with regard to their likelihood of providing parent-support. This can explain why we find that the variety in the number of work-hours of working women has no relationship to their provision of parent-support. The prevalence of part-time work among the partners of men in our study (66 per cent, not shown) might explain why we do not find a conflict between the work-hours and provision of parent-support among men either. The partners of these men might take over other tasks, such as housework and parenting, thus easing their men's time expenditures on both paid work and parent-support.

A fourth explanation is that we may have underestimated the relationship between work-hours and providing parent-support because our sample did not include job-less middle aged men and women, who might be more likely to provide parent-support than their working peers. This is particularly likely to affect the work-support conflict among women, given that about one third of the female respondents otherwise eligible for inclusion in our sample had no paid work (most were homemakers), whereas this applied to only about ten per cent of the male respondents (most were retired). In as far as the literature on paid work and the provision of personal *care* to parents can be illustrative for the relationship between support and work-hours, this literature yields mixed reports on the question whether working women are less likely to take up daily care-giving than non-working women. Whereas aggregate European data (Ogg and Renaut, 2006) and a local area study in the Netherlands (Dautzenberg *et al.*,

2000) suggest that this is the case, studies in the USA and Canada denounce this (Moen *et al.*, 1994; Barnes *et al.*, 1995; Pavalko and Artis, 1997), and emphasize that middle aged children tend to respond to parents' demands for help, regardless of whether they have jobs or not. A solution to the exclusion of the non-working from our simultaneous model would be to develop a model that simultaneously estimates a tobit model of work-hours and a probit model of providing support.

A fifth explanation for the lacking relationship between work-hours and provision of parent-support can be that middle aged workers accommodate the provision of parent-support by decreasing time expenditures on other activities than paid work, such as housework, childcare, parenting, leisure and sleep. Although we included the partners' relative contributions to housework in our analyses and although we included the number of children and the presence of co-resident children of different age groups, we could not include measures of absolute time spent on these activities.

A final explanation for our finding can be that middle aged workers alleviate time budget conflicts between paid work and providing support by using (paid) help that we had no measure of, such as their siblings', partner's, children's or professionals' help with providing support to the respondent's parents, (paid) help with maintenance, laundry service, ready-made dinners, and so on. Recent research in France and Israel suggests that most family-members who provide informal elder-care are supported by professional or formal help (Litwin and Attias-Donfut, 2009), and recent research in the USA suggests that spouses often assist with care provided to parents (Szinovacz and Davey, 2008). This may also apply to middle aged men and women who provide instrumental *support* to their elderly parents. Future research can shed more light on these issues when it employs complete information about the use of professional services, parent-support provided by all siblings of respondents, and the extent to which men and women assist their partners with the provision of parent-support.

The second main finding in chapter 5 was that the presence and activities of household members have an impact on women's and men's work-hours and provision of parent-support. Part of our results confirmed our expectations based on the new home economics theory that individuals are subject to time budget constraints exerted by their partners and co-resident children. We found that midlife men and women spend more time in the labour force the more their

partners free them from routine housework, and that women spend more time in the labour force the fewer children they have and the older their children are. Furthermore, other findings suggested that partner-selection on the basis of educational homogamy influences men's work-hours, and that compensation for their wives' earning power with gender display influences men's likelihood to provide parent-support.

The third main finding in chapter 5 was that the determinants of Dutch women's and men's likelihood to provide support point at a gender-stereotypical pattern in which the role of support-provider to parents is normative for women, but not for men. Women's provision of parent-support depended on only one characteristic. Namely, women were more likely to provide support when they had only one remaining parent compared to when they had two living parents. This finding resonates with previous evidence that daughters become care-givers to parents once the primary care-giver, the other parent, has become unavailable (Spitze and Logan, 1990). In contrast, men's provision of parent-support depended on multiple individual and contextual characteristics. Firstly, men's support-provision depended on whether their partner frees them from household obligations, and on their partner's relative hourly wage. Secondly, we found that men were more likely to provide parent-support, the stronger their sense of filial obligation was. This finding resonates with earlier work in the USA which suggests that felt obligation particularly stimulates sons' support-provision to parents (Silverstein *et al.*, 1995). Finally, men were more likely to provide parent-support when at least one parent had reached old age (beyond 80 years), which is when need for help is likely to increase due to the onset of health problems (Perenboom, 2005; Lafortune and Balestat, 2007; Nusselder *et al.*, 2008). These differences between women and men regarding the determinants of their provision of parent-support suggest that women provide support no matter what individual and contextual dispositions they have, whereas men's provision of parent-support depends on various characteristics.

6.3. Discussion of findings

6.3.1. Contributions to research

In this section we will discuss the general contributions of the present study to research on gendered labour patterns and intergenerational relationships. In the first place, the present study has shown that not only the conventionally studied individual, couple and household characteristics determine women's and men's labour patterns, but that transfers between individuals and their *parents* also

have an impact. This implies that gendered labour patterns come about in a wider social context than the conventional perspectives tend to recognize, namely a social context that includes parents in addition to spouses and children.

Secondly, the present study has shown that early parental behaviours leave a mark on women's and men's behaviours long after they have left the parental home, in spite of the influence of partners, siblings, friends, colleagues and other family members, and in spite of educational and occupational trajectories and other transformative life experiences. In this respect our study aligns with the view that early life course experiences have repercussions in later life, which is not only shared by proponents of behavioural role modelling or stratification, but also by various other theoretical perspectives. Generation theory postulates that the economic and social circumstances during the formative period when individuals are approximately between 10 and 25 years of age shape their expectations, ambitions and political views (Inglehart, 1977; Easterlin, 1980; Becker, 1992). People carry the values developed in this formative period with them for the rest of their lives. The life course approach (Elder, 1985; Hagestad and Neugarten, 1985) also subscribes to the principle that events in early life might strongly influence the further development of the life-course. Mayer (1986), for example, speaks of cumulative contingency to show that decisions and actions taken early in life have irreversible consequences for the direction and structure of life paths later on. However, our findings do not only subscribe to the notion that parents' *early* behaviours have an impact on men's and women's labour patterns. Our finding in chapter 4 that mothers of young children work more hours when grandparents help out with routine housework also indicates that intergenerational transfers which take place in *adulthood* have an impact on women's behaviour in the labour market. All in all, our findings suggest that the role that parents play in women's and men's labour patterns stretches out beyond childhood.

Thirdly, due to our focus on the relationship between parents' early behaviours and adult children's later behaviours, our results contribute to the small yet growing body of empirical research indicating that not only gender-role *attitudes* are transmitted across generations, but that the gender-specific *behaviours* of one generation can be reproduced by the descendant generation. It is relevant to establish this relationship between the gendered behaviours of parents and adult children because the often-confirmed relationship between parents' and children's gender-role attitudes (Acock and Bengtson, 1978; Glass *et al.*, 1986; Starrels, 1992; Moen *et al.*, 1997; Cunningham, 2001a; Burt and Scott, 2002) in

itself does not warrant any conclusions about the parents' influence on the labour patterns of women and men, given that the relationship between gender-role attitudes and gendered behaviours is contested (Coltrane, 2000; Lesthaeghe, 2002).

A fourth contribution to the literature on gendered labour patterns is that our results underline the merit of studying the determinants of both the labour market participation *and* the work-hours of women in the Netherlands, rather than studying their labour market participation only. As explained before, unlike other countries, women's labour force participation in the Netherlands does not tend to equal full-time participation, but rather refers to a range of part-time arrangements, varying from several to 36 hours per week. The high prevalence of part-time work among Dutch women and the variation in Dutch women's work-hours sets the female labour supply in the Netherlands apart from that in other developed countries. Consequently, prior research on the determinants of gendered labour patterns in other countries, especially in countries with a substantially larger full-time female labour supply such as the USA or France, cannot be readily generalized to the Dutch context. Indeed we find that in the Netherlands, the intergenerational determinants of women's labour force participation and work-hours differ. In chapter 3 we found that the mother's labour market participation had no impact on women's labour market participation, whereas it did have an impact on women's work-hours. Additionally, in chapter 4 we found a small impact of received grandparent help with routine housework on women's labour force participation, and a relatively large impact of received grandparent help on women's work-hours. Furthermore, all our analyses with women's labour force participation and work-hours as dependent variables show that various control variables have different implications for participation and work-hours.

A fifth contribution to the literature is that we studied the labour patterns of both women *and* men in this study. Consequently, we could assess to what extent the impact of intergenerational transfers on women's and men's labour patterns differ. In fact, we predominantly found similarities between women and men with regard to the impact of intergenerational transfers on paid and unpaid labour. Firstly, in chapter 2 we found that both women and men contribute more to housework the larger their same-sex parent's contributions were in childhood, and that neither women's nor men's contributions to childcare were affected by their parents' early contributions to childcare. Secondly, in chapter 4 we found no impact of grandparent help with childcare on women's or men's work-hours.

Thirdly, in chapter 5 we found that neither men's nor women's work-hours were related to their provision of instrumental support to parents. The only difference we found between women and men with regard to intergenerational patterns is that women tended to work more hours when they received grandparent help with routine housework, whereas this had no impact on men's work-hours.

Our finding of more similarities than differences in the impact of inter-generational transfers on men's and women's labour patterns suggests that intergenerational transfers predominantly affect men and women in the same way. This was in line with our expectation that the mechanisms of behavioural role modelling and time budget restrictions would apply similarly to women as to men (all else equal) — apart from expecting men to revert to their fathers as a role model for gendered behaviours rather than to their mothers, and women to their mothers rather than to their fathers. Yet our finding that grandparent help with routine housework only had an impact on mothers' labour force participation and work-hours and not on fathers', does not mean that the mechanism of time budget restrictions would fail to apply to men. Instead, the routine housework that grandparents help out with does not include the chores that men generally tend to do, given that fathers generally contribute little to routine housework compared to mothers. Therefore the help with routine housework provided by grandparents saves men little time that they in turn can spend in the labour market. We emphasize that our conclusion that most of the intergenerational transfers which we assessed in the present study affect men's and women's labour patterns in a similar fashion does not mean that men's and women's time expenditures on paid work and housework in general have the same determinants. To the contrary, our results suggest that women's and men's work-hours and contributions to housework are affected differently by conventional determinants such as years of education, intra-couple income distribution, relationship status, number and age of children, gender-role attitudes and work ethic.

Another contribution to the literature is that we not only studied routine household chores such as cooking, cleaning, grocery shopping, laundry, and ironing, which are typically done by women, but also occasional household chores such as paper work and finances, and maintenance jobs in home and yard, which are typically done by men. This allowed us to assess whether both types of housework are subject to parental role modelling. This is relevant because this can expand our understanding of the determinants of the household chores that are typically done by men, and expand our understanding of what

motivates men to do housework. As mentioned previously, the results in chapter 2 suggested that adults' contributions to the occasional chores which are stereotypically men's domain are subject to the mechanism of parental role modelling in a similar fashion as their contributions to the routine chores which are stereotypically women's domain.

However, we found some marked differences in the dependency patterns of contributions to routine housework and contributions to occasional housework, which suggest that these two kinds of housework are subject to different determinants. To start with, fewer conventional predictors had an impact on contributions to occasional housework than on contributions to routine housework. Among men this contrast was especially large, given that only two characteristics had an impact on men's contributions to occasional housework, namely their parents' division of housework, and their partner's relative years of schooling, whereas ten characteristics had an impact on men's contributions to routine housework. This suggests that men tend to do occasional housework almost no matter what their background characteristics are, whereas their contributions to routine housework depend on a host of characteristics, including their marital status, gender role attitudes, relative resources, and time budget constraints. Among women this difference was less pronounced, although almost none of the time budget restriction characteristics and none of the early life course characteristics had an impact on their contributions to occasional housework whereas these characteristics did have an impact on their contributions to routine housework. Furthermore, among women we found a reverse pattern, namely that their marital status and relative level of education had an impact on their contributions to occasional housework, but no impact on their contributions to routine housework.

Two conventional characteristics had an impact on contributions to routine housework in the opposite direction to their impact on occasional housework. The lower men's relative level of education was, the more men contributed to routine housework, but the less to occasional housework. The higher women's own relative income was the less women contributed to routine housework, but the more to occasional housework. These 'mirrored' patterns suggest that both men and women tend to do more routine housework the more they characterize as stereotypically 'feminine' (low relative level of education and income), and more routine housework the more they characterize as stereotypically 'masculine' (high relative level of education and income). These mirrored patterns can also be interpreted as support for the relative resources approach,

with the partner or spouse with most resources (education or income) doing more of the least time-intensive occasional chores and less of the routine chores.

Finally, we contributed to the literature by comparing the determinants of respondents' contributions to childcare and housework (chapter 2) and by comparing the impact of help received with childcare and with housework (chapter 4), instead of focusing either on housework, as previous research on parental role modelling has done, or on childcare, as previous research on the impact of grandparent help on women's work-hours has done. In chapter 2 our results suggested that few of the conventional predictors of contributions to routine housework have an impact on contributions to childcare. This contrast is especially large among men. It is noteworthy that none of the indicators of the distribution of resources within a couple has any impact on women's or men's contributions to childcare, whereas relative resource indicators have an impact on both routine and occasional housework. In fact, of all characteristics we included in our models, indicators of time budget constraints seemed to be all that mattered to the division of childcare between men and women.

6.3.2. Policy implications

In this section we discuss the policy implications of several of our findings. Firstly, in view of the Lisbon objectives and other European Union directives aimed at improving women's economic position (European Commission, 2007), our finding that daughters of working mothers work more hours in adulthood than daughters of home-stay mothers has high policy relevance in the Dutch 'part-time' context. Our finding suggests that if all women who are currently aged between 18 and 64 had grown up with working mothers, the total volume of female labour supply could have been six to seven per cent higher (all else equal). Such a substantial expansion of female labour supply would be much desired in the face of the baby-boom generation's approaching retirement from the labour market, and the increasing need, as the population continues to age, for professional care and other paid personal services which are typically provided by female workers. Our finding also emphasizes that there is opportunity for change in women's work-hours.

Considering that two-thirds of the women in our sample were raised by homemaking mothers, the intergenerational reproduction of women's labour patterns offers a viable explanation as to why the 24-hour work-week has proven persistent among Dutch women (Román *et al*., 2007). According to our estimates, at this moment in time only one-third of women of working age can

revert to the counter-stereotypical example of a working mother, and has benefited from their financial, social, and human capital. The two-thirds of women in our sample whose mother did not work not only lacked the example of a mother who combined work with raising a family, but also missed out on the resources that a working mother might have brought along. Thus, our findings in chapter 3 align with Esping-Andersen's warning that the labour market withdrawal of mothers after childbirth may increase poverty among their children, and, among low income mothers, may perpetuate (female) poverty across generations (Esping-Andersen, 2005). In view of this reproduction of poverty due to maternal labour market withdrawal after childbirth we consider it worrisome that almost half of men and women in the Netherlands appear to agree with the opinion that mothers might as well stay home to take care of children if their income approximates the costs of childcare (Bos and Merens, 2006). Qualitative research in the Netherlands suggests that this opinion tends to coincide with the belief that mothers can provide higher quality care for their children than (professional) paid childcare providers, and that it is in the best interest of their children to provide them with the best care (Pool and Lucassen, 2005). Paradoxically, our results suggest that when mothers retreat from the labour market, mother-provided childcare is *not* in the best interest of their daughters in the long run. Namely, our finding that the daughters of non-working mothers work fewer hours in adulthood implies that the daughters of non-working mothers have fewer career opportunities, earn less, and receive less pension after retirement compared to the daughters of working mothers who tend to work more hours in adulthood.

Another policy-relevant finding is that the early housework division between parents serves as an example for the later division of housework between children and their partners. On the one hand this means that the gendered division of housework which dominates today, and which hampers women's work-hours, is likely to remain persistent in the near future. On the other hand our finding also suggests that each couple that realizes an egalitarian division of routine housework is likely to stimulate an egalitarian task-division among their children in the future. Our finding of an intergenerational 'ripple' effect of today's parents' contributions to routine housework underlines that it might be beneficial to devise strategies on how to stimulate an egalitarian housework division in private households as part of programs aimed at increasing women's work-hours. Additionally, our finding suggests that part of the pay-off of such programs comes in the long run, namely among the children of those targeted by these programs. Rather than the common focus on short-term outcomes in

evaluations of government programs, our results point out that an accurate insight into the benefits of gender-emancipation programs requires the evaluation of outcomes in the long run.

A third finding with policy relevance is that mothers of young children who received grandparent help with routine housework had a three per cent higher probability to participate in the labour force, and worked about two and half more hours compared to mothers who received no grandparent help with routine housework. This implies an increase of 14 per cent in the average 17 hours work-week of the mothers in our sample, and it would imply an increase of 12 per cent in the average 21 hours work-week of all working women with young children in the Netherlands (Dijkgraaf and Portegijs, 2008).

Increasing women's work-hours with such substantial percentages would importantly reduce the current shortage of labour supply in the Dutch labour market (OECD, 2008). These estimates underline the economic relevance of grandparent help with routine housework for mothers with young children. In this way the present study aligns with the growing literature on the importance of downward transfers of financial and practical support within families (Hogan *et al.*, 1993; Klein Ikkink *et al.*, 1999; Attias-Donfut *et al.*, 2005; Knijn and Liefbroer, 2006; Albertini *et al.*, 2007; Hank and Buber, 2009).

Furthermore, it is noteworthy that receiving household help from grandparents contributes to mothers' labour force participation and work-hours even after controlling for the substantial impact of use of paid services. Mothers who used paid childcare on average worked seven and half hours more than mothers who did not use paid childcare (all else equal), and mothers who used paid household help worked three and half hours more than mothers without paid household help (all else equal). Yet, the help that grandparents provide with routine housework saves mothers an additional two and half hours. This suggests that paid services lack certain qualities or benefits that grandparents have to offer.

An obvious difference between paid services and grandparent help is that grandparent help is free of charge — note that grandparent help in this study was operationalised as unpaid help. However, given that we found the same time-saving impact of received grandparent help on mothers' work-hours among low, medium and high-income mothers, our results do not suggest that the time-saving impact of grandparent help applies merely to low-income mothers. Another difference is that paid services, especially letting hired help into one's

home, introduce the obstacles of trust, risk, and of negotiating value for money in an often somewhat uneasy semi-personal employer-employee relationship (De Ruijter, 2005). Prior research on household outsourcing has suggested that these disadvantages of hiring paid household help represent immaterial costs that may reduce the beneficial time-saving impact of domestic service (De Ruijter, 2005). If the Dutch government truly intends to implement the Lisbon agreements on stimulating women's work-hours, our finding regarding grandparents' help with routine housework suggests that it might be worth considering to reinstate subsidies for private households to finance informal help, or to stimulate the affordability and accessibility of paid services that can deliver the same quality of domestic help that grandparents (apparently) provide, with fewer risks and immaterial costs.

Finally, our finding of a lacking interdependent relationship between middle aged women's and men's work-hours and their provision of instrumental support to elderly parents indicates that among those who are employed in middle age, the provision of instrumental support to parents does not lead to reductions in work-hours, and that their number of work-hours do not determine whether middle aged women and men become engaged in providing parent-support. Consequently, we conclude that we have found little empirical ground for the often expressed worry in discussions about population ageing that paid work would prevent middle aged women and men from providing help to their elderly parents. Yet, this conclusion only applies to *working* middle aged women and men, as our sample of respondents did not include middle aged without paid jobs. Our analyses do not warrant a conclusion on the relationship between the provision of parent-support in middle age and labour force participation as such.

However, we want to point out that our sample of working middle aged included workers who spent as little as one or two days per week on paid work, which we cannot expect to be an obstacle to providing instrumental parent-support. The fact that we did not find any relationship between work-hours and providing support suggests that those with relatively limited employment obligations are not any more likely to provide support than those with extensive employment obligations. Based on this finding we speculate that middle aged women and men who have *no* employment obligations at all, namely those without paid jobs, may not be much more likely to provide support either. Moreover, the literature on family solidarity does not provide much ground for inferring that the increase in middle aged women's labour force participation

rate might lead to a lack of support for the elderly in the future. In general, family members' provision of help to elderly is primarily need-driven (Timmermans and Pommer, 2008). This means that when individuals have to choose between providing needed help to their elderly parent or spending their time on another activity such as leisure, housework, or paid work, they are likely to let the provision of help precede — unless someone else, such as a sibling, can provide help.

Instead of the increasing female employment rate, the verticalisation of families might pose more of a barrier to the provision of support (and care) to elderly parents by middle aged children. As a consequence of the decreased birth-rate and the increasingly later ages at which women give birth, middle aged women and men have fewer siblings to share the support (and care) for elderly parents with. Middle aged' responsibility for parent-support may be aggravated even further if the Dutch government continues its policy to decrease public provisions for elderly (Timmermans and Pommer, 2008). Scaling back of public provisions is likely to result in lower over-all levels of support and care for elderly. The family solidarity literature suggests that when elderly can turn to the state for care such as in-home or institutional care, family members can concentrate on the other, remaining, needs of elderly, such as help with finances and paperwork, transportation, shopping, care management, and keeping in contact with the doctor (Motel-Klingebiel *et al.*, 2005; Künemund, 2008).

6.3.3. Suggestions for future research

We want to end this study with several suggestions for future interdisciplinary research on intergenerational relationships and gendered labour patterns. In the first place, future research on the interdependencies between intergenerational transfers of support and labour patterns might benefit from the incorporation of detailed measurements of time expenditures on housework, provided and received support, sleep and leisure activities. In the present study we have used such absolute time use data on work-hours, whereas we used relative measures of contributions to housework, and categorical frequencies of provided and received instrumental support. Absolute time measures on housework and providing or receiving support are particularly useful to answer questions on the interrelatedness of time expenditures within an individual time budget, such as in chapter 4. In this chapter we studied the impact of received grandparent help with housework and childcare on the work-hours of parents of young children. Given that we had no measures of the absolute time that grandparents spent on providing support, nor on parents' absolute time spent on housework and

childcare, we could not directly test whether the found relationship between grandparent support with routine housework and mothers' work-hours was the consequence of grandparent help saving mothers time on routine housework.

Yet, in other instances relative housework measures can be equally suitable or even preferable to absolute time measures of housework. This was the case in chapter 2, where we studied the question whether gendered housework patterns were reproduced across generations. The relative housework measures were also appropriate in chapter 5, where we applied Becker's NHE theory on task-specialization in the household by incorporating the partners' relative contributions to routine housework in our simultaneous model of middle aged men's and women's provision of parent-support and work-hours. Furthermore, relative housework measures tend to yield more valid information than (retrospective) questions on absolute time expenditures when collected in a questionnaire, because it is difficult for respondents to recollect precisely how much time they spent on specific tasks, especially when they 'multi-task' (Bianchi *et al.*, 2000; Coltrane, 2000).

We also recommend the inclusion of absolute time spent on instrumental support in future research on the interdependencies between the work-hours of men and women and the support they provided or received. As we elaborated on in chapters 4 and 5, our categorical measures of support group together support-providers and -receivers that might be subject to different time expenditures of provided or received support. Due to this measurement artefact we might have underestimated the relationship between men's and women's work-hours on the one hand and their provision to and receipt of support on the other hand. The inclusion of measures of absolute time spent on providing support or the time 'saved' by receiving instrumental support in future research will help to verify whether this underestimation indeed plays a role.

Moreover, we recommend future research to incorporate absolute time expenditures on sleep and leisure activities, because this enables future studies to expand present insights into the complex interdependencies within individual time budgets. For example, this will enable testing of our tentative explanation in chapter 5 that middle aged workers might accommodate the provision of parent-support by decreasing their time expenditures on leisure and sleep. Another suggestion for future research is to develop time use measures for outsourcing housework and childcare, and measures of time spent on parenting teenage children. Although teenage children may be able to feed and dress

themselves, this does not mean that parents stop parenting, supporting or spending time with their children. However, the literature on unpaid labour is strongly focused on childcare for young children who require intensive personal care such as feeding and bathing. Although some standard items on childcare, such as help with homework, disciplining, and discussing personal matters apply to teenage children, these questions are usually not directed to parents of children older than twelve. Obtaining insights into the time children spend in non-parental childcare, the time during which respondents hire household help, and the time that parents invest in raising teenage children will provide a more complete picture of the individual time budget interdependencies among middle aged women and men.

In addition to our recommendations with regard to time use indicators, we have identified several novel research topics that future studies might want to address. Firstly, future research could address the reproductive labour market behaviour of men. Due to the increase in part-time working men (with children) in the Netherlands, a generation of young adults that is raised by part-time working fathers is in the making. Once their numbers are large enough, the labour market behaviours of children raised by part-time working fathers can be compared with the labour market behaviours of children of full-time working mothers. This will allow for the assessment of same- and cross-sex effects of behavioural role modelling in the realm of paid work. Future research that includes part-time working fathers might also provide insight into the relative importance of the mechanisms of intergenerational behavioural role modelling and resource transfers. On the one hand we would expect part-time working fathers to set a more gender-egalitarian example for their children than full-time working fathers, but on the other hand we expect them to have fewer resources, thus potentially constraining children's labour market involvement in adulthood.

A second research question that future research could tackle is whose parental role model has most impact on the division of housework within couples: Women's or men's. Answering this question would improve our understanding of gender differences in housework reproduction patterns. Similarly, future research might want to tease out whether women and men predominantly model their contributions to housework after their mother, their father, or both. Answering this question requires the use of parents' early absolute time expenditures on housework, instead of parents' relative contributions. In view of the substantial and increasing number of parental separations and the associated reduced contact between children and their fathers (Cooney, 1994; Kalmijn,

2007), the extent of same- or cross-sex parental role modelling is relevant for understanding both men's and women's participation in housework. In fact, our results in chapter 2 suggested that parental divorce decreases women's contributions to routine housework whereas it has no implications for men.

Thirdly, another avenue for innovation in research on intergenerational relationships and solidarity among respondents with partners is to map the intergenerational support that individuals provide to and receive from their own parents, the support that individuals provide to and receive from their partner's parents, the support that partners provide to and receive from their own parents, and the support that partners provide to and receive from the individual's parents. When the focus of study is on divorced individuals, their provision and receipt of support to/from their ex-partner's parents could also be included. Such a complete map of all intergenerational transfers of support among couples or divorcees would allow for multivariate analyses on the relationship between work-hours and support received or provided that capture *all* help received and consequently cannot underestimate the impact of received or provided help on the labour market behaviour of women and men.

Fourthly, future research on parental role modelling of housework could benefit from controlling for men's and women's *own* contributions to routine and occasional housework as children. Parents' division of housework in childhood is likely to influence men's and women's contributions to housework in adulthood partly via children's own early experiences with doing housework, given the prevailing sex-typing of children's housework from very young ages onwards (Denuwelaere, 2003; Gager *et al*., 1999).

Fifthly, future research on the interdependencies between labour market behaviour on the one hand and providing or receiving intergenerational support on the other hand would benefit from the use of longitudinal data that can establish the duration of support-providing or support-receiving spells. Given that the constraints on time and energy increase the longer individuals provide support, it is to be expected that those who provide support over long periods of time experience larger barriers to spend time on paid work, housework, parenting, leisure and sleep compared to those who provide support during a relatively short period of time. The same applies to the impact of receiving instrumental support, as duration of received support can be an indicator of how structural or incidental the received support is, and consequently to what extent

support-receivers need the support in order to reconcile their family obligations and housework with their paid work.

Next, our findings in chapter 5 have suggested that future research on the time budget interdependencies of middle aged men and women needs to take their household context into account. The dominant focus on individual characteristics in research on the relationship between support provision to elderly parents and labour force participation or work-hours in middle age neglects that the interdependencies within individual time budgets are part of an overarching interdependency between the time budgets of partners and other household members. Consequently, such an individualistic focus provides only a partial insight into the determinants of men's and women's time spent on paid work and parent-support. We recommend future research to build forth on the findings presented in this study by assessing to what extent the relationship between work-hours and the provision of parent-support in midlife depends on the time budget restrictions of partners and co-resident children.

Finally, another question for future research is what the consequences are for grandparents' own labour force participation, work-hours, and timing of retirement, when they provide help with housework or childcare to parents with young children. If grandparents would be found to scale back work-hours or to retire early due to their provision of downward intergenerational support, policy makers might want to assess whether the decrease in grandparents' labour supply would outweigh the increase in parents' labour supply. In assessing the policy implications of such a comparison, we urge policy makers to take into account that the gains in terms of parents' labour supply are likely to outweigh the losses in terms of grandparents' labour supply, given that the labour market interruption of adults in an early life course phase will echo through in later life course phases (Vlasblom and Schippers, 2005). In other words, the long-term gain of parents' uninterrupted labour force participation is likely to outweigh the short-term loss of grandparents' interrupted or ended labour force participation.

References

Acock, A.C. and V.L. Bengtson (1978), On the relative influence of mothers and fathers: A covariance analysis of political and religious socialization. *Journal of Marriage and the Family, 40*, 519-530.

Adema, W. (2002), *Babies and bosses: Reconciling work and family life. Volume 1: Australia, Denmark and the Netherlands*. Paris: OECD.

Agree, E.M., B. Bissett and M.S. Rendall (2003), Simultaneous care for parents and care for children among mid-life british women and men. *Population Trends, 112*, 29-35.

Albertini, M., M. Kohli and C. Vogel (2007), Intergenerational transfers of time and money in European families: Common patterns - different regimes? *Journal of European Social Policy, 17*, 319-334.

Allen, S., M. and P. Webster, S. (2001), When wives get sick: Gender role attitudes, marital happiness, and husbands' contribution to household labor. *Gender and Society, 15*, 898-916.

Almquist, E.M. and S.S. Angrist (1970), Career salience and atypicality of occupational choice among college women. *Journal of Marriage and the Family, 32*, 242-249.

Amemiya, T. (1978), The estimation of a simultaneous equation generalized probit model. *Econometrica, 46*, 1193-1205.

Antill, J.K., J.J. Goodnow, G. Russell and S. Cotton (1996), The influence of parents and family context on children's involvement in household tasks. *Sex Roles, 34*, 215-236.

Aschaffenburg, K.E. (1995), Rethinking images of the mobility regime: Making a case for women's mobility. *Research in Stratification and Mobility, 14*, 201-235.

Attias-Donfut, C., J. Ogg and F.-C. Wolff (2005), European patterns of intergenerational financial and time transfers. *European Journal of Ageing, 2*, 161-173.

Attias-Donfut, C. and F.-C. Wolff (2000), The redistributive effects of generational transfers. In S. Arber and C. Attias-Donfut (Eds.), *The myth of generational conflict* (pp. 22-46). London/New York: Routledge.

Bandura, A. (1977), *Social learning theory*. Upper Saddle River: Prentice Hall.

Barber, J.S. (2001), The intergenerational transmission of age at first birth among married and unmarried men and women. *Social Science Research, 30*, 219-247.

Barlow, J. and A.Underdown, (2005), Promoting the social and emotional health of children, *Journal of the Royal College of Health Promotion*, *125*(2), 64-70.

Barnes, C.L., B.A. Given and C.W. Given (1995), Parent caregivers: A comparison of employed and not employed daughters. *Social Work, 40*, 375-382.

Beagan, B., G.E. Chapman, A. D'Sylva and B.R. Bassett (2008), 'It's just easier for me to do it': Rationalizing the family division of foodwork. *Sociology, 42*, 653-671.

Becker, G.S. (1965), A theory of the allocation of time. *The Economic Journal, 75*, 493-517.

Becker, G.S. (1981), *A treatise on the family*. Cambridge/Massachussetts: Harvard University Press.

Becker, G.S. (1985), Human capital, effort, and the sexual division of labor. *Journal of Labor Economics, 3*, 33-58.

Becker, H.A. (1992), *Generaties en hun kansen [Generations and their life chances]*. Amsterdam: Meulenhoff.

Beets, G. (2006), Demographic developments in the European union. In N. Van Nimwegen and G. Beets (Eds.), *Demography monitor 2005: Demographic trends, socio-economic impacts and policy implications in the European union* (Vol. 72, pp. 31-92). The Hague: Netherlands Interdisciplinary Demographic Institute.

Bekkers, R. (2004), *Giving and volunteering in the Netherlands: Sociological and psychological perspectives. Phd thesis (Utrecht University)*.

Bengtson, V.L. (2001), Beyond the nuclear family: The increasing importance of multigenerational bonds. *Journal of Marriage and the Family, 63*, 1-17.

Bengtson, V.L. and R.E.L. Roberts (1991), Intergenerational solidarity in aging families: An example of formal theory construction. *Journal of Marriage and the Family, 53*, 856-871.

Berk, R.A. and S. Fenstermaker Berk (1983), Supply-side sociology of the family: The challenge of the new home economics. *Annual Review of Sociology, 9*, 375-395.

Bernasco, W. (1994), *Coupled careers: The effects of spouse's resources on success at work. Phd thesis (Utrecht University)*.

Bernasco, W., P.M. De Graaf and W.C. Ultee (1998), Coupled careers: Effects of spouse's resources on occupational attainment in the Netherlands. *European Sociological Review, 14*, 15-31.

Bettio, F. and J. Plantenga (2004), Comparing care regimes in Europe *Feminist Economics, 10*, 85-113.

Bianchi, S.M., M.A. Milkie, L.C. Sayer and J.P. Robinson (2000), Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces, 79*, 191-228.

Bianchi, S.M. and J.P. Robinson (1997), What did you do today? Children's use of time, family composition, and the acquisition of social capital. *Journal of Marriage and the Family, 59*, 332-345.

Bielby, D. (1978), Maternal unemployment and socioeconomic status as factors in daughters' career salience. *Sex Roles, 4*, 249-265.

Bittman, M., P. England, N. Folbre, L. Sayer and G. Matheson (2003), When does gender trump money? Bargaining and time in household work. *The American Journal of Sociology, 109*, 186-214.

Blair, S.L. (1992), The sex-typing of children's household labor: Parental influence on daughters' and sons' housework. *Youth and Society, 24*, 178-204.

Blau, P.M. and O.D. Duncan (1967), *The American occupational structure*. New York: The Free Press.

Block, J., A. Von Der Lippe and J.H. Block (1973), Sex-role and socialization patterns: Some personality concomitants and environmental antecedents. *Journal of Consulting and Clinical Psychology, 41*, 321-341.

Blossfeld, H.-P. and S. Drobnic (2001a), Theoretical perspectives on couples' careers. In H.-P. Blossfeld and S. Drobnic (Eds.), *Careers of couples in contemporary societies. From male breadwinners to dual earner families* (pp. 16-50). Oxford: Oxford University Press.

Blossfeld, H.-P. and S. Drobnic (eds.) (2001b), *Careers of couples in contemporary societies: From male breadwinner to dual earner families*. Oxford: Oxford University Press.

Booth, A. and P.R. Amato (1994), Parental gender role nontraditionalism and offspring outcomes. *Journal of Marriage and the Family, 56*, 865-877.

Booth, C.L., K.A. Clarke-Stewart, D.L. Vandell, K. McCartney and M.T. Owen (2002), Child-care usage and mother-infant "Quality time". *Journal of Marriage and the Family, 64*, 16-26.

Bos, W. and A. Merens (2006), Inkomen [Income]. In W. Portegijs, B. Hermans and V. Lalta (Eds.), *Emancipatiemonitor 2006. Veranderingen in de leefsituatie en levensloop* (pp. 181-234). Den Haag / Rijswijk: Sociaal Cultureel Planbureau / Centraal Bureau voor de Statistiek.

Bracke, P., W. Christiaens and N. Wauterickx (2008), The pivotal role of women in informal care. *Journal of Family Issues, 29*, 1348-1378.

Brandon, P. (2000), An analysis of kin-provided child care in the context of intrafamily exchanges linking components of family support for parents raising young children. *The American Journal of Economics and Sociology, 59* , 191-216.

Breedveld, K. and A. van den Broek (2006), *Zorgtaken naar persoonskenmerken: Wie geeft hoeveel zorg? [Care tasks by personal characteristics: Who provides care and how much?]*. Web document: http://www.tijdbesteding.nl

Brines, J. (1993), The exchange value of housework. *Rationality and Society, 5*, 302-340.

Brines, J. (1994), Economic dependency, gender, and the division of labor at home. *American Journal of Sociology, 100*, 652-688.

Bulanda, R.E. (2004), Paternal involvement with children: The influence of gender ideologies. *Journal of Marriage and the Family, 66*, 40-45.

Burt, K.B. and J. Scott (2002), Parent and adolescent gender role attitudes in 1990s Great Britain. *Sex Roles, 46*, 239-245.

Chodorow, N.J. (1978), *The reproduction of mothering, psychoanalysis and the sociology of gender*. Berkeley: University of California Press.

Cloïn, M. and B. Hermans (2006), Onbetaalde arbeid en de combinatie van arbeid en zorg [Unpaid labor and the combination of labor and care]. In W. Portegijs, B. Hermans and V. Lalta (Eds.), *Emancipatiemonitor 2006. Veranderingen in de leefsituatie en levensloop* (pp. 100-140). Den Haag: Social and Cultural Planning Office (SCP) & Statistics Netherlands (CBS).

Cogle, F.L. and G.E. Tasker (1982), Children and housework. *Family Relations, 31*, 395-399.

Coltrane, S. (2000), Research on household labor: Modeling and measuring the social embeddedness of routine family housework. *Journal of Marriage and the Family, 62*, 1208-1233.

Coltrane, S. and M. Ishii-Kuntz (1992), Men's housework: A life course perspective. *Journal of Marriage and the Family, 54*, 43-57.

Commissie Gelijke Behandeling (2009), *Dutch equal treatment commission homepage*. Web document: http://www.cgb.nl

Cooney, T.M. and P. Uhlenberg (1992), Support from parents over the life course: The adult child's perspective. *Social Forces, 70*, p63, 22p.

Cörvers, F. and B. Golsteyn (2003), *Changes in women's willingness to work in a tightening labour market: The impact of preferences, wages and individual characteristics*. Research Centre for Education and the Labour Market (ROA), Maastricht University. Web document: http://edocs.ub.unimaas.nl/loader/file.asp?id=807

Coverman, S. (1985), Explaining husband's participation in domestic labor. *Sociological Quarterly, 26*, 81.

Crook, C.J. (1995), The role of mothers in the educational and status attainment of Australian men and women. *Australian and New Zealand Journal of Sociology, 31*, 45-73.

Crouter, A.C. and B.A. Manke (1995), The family context of gender intensification in early adolescence. *Child Development, 66*, 317-330.

Cuijpers, M., B. Hermans and W. Portegijs (2006), Betaalde arbeid [Paid labor]. In W. Portegijs, B. Hermans and V. Lalta (Eds.), *Emancipatiemonitor 2006. Veranderingen in de leefsituatie en levensloop* (pp. 67-99). Den Haag: Sociaal Cultureel Planbureau.

Cunningham, M. (2001a), The influence of parental attitudes and behaviors on children's attitudes toward gender and household labor in early adulthood. *Journal of Marriage and the Family, 63*, 111-122.

Cunningham, M. (2001b), Parental influences on the gendered division of housework. *American Sociological Review, 66*, 184-203.

Cunningham, M. (2005), Gender in cohabitation and marriage. The influence of gender ideology on housework allocation over the life course. *Journal of Family Issues, 26*, 1037-1061.

Cunningham, M. (2007), Influences of women's employment on the gendered division of household labor over the life course. *Journal of Family Issues, 28*, 422-444.

Cunningham, M., A.M. Beutel, J.S. Barber and A. Thornton (2005), Reciprocal relationships between attitudes about gender and social contexts during young adulthood. *Social Science Research, 34*, 862-892.

Dautzenberg, M.G.H., J.P.M. Diederiks, H. Philipsen, F.C.J. Stevens, F.E.S. Tan and M.J.F.J. Vernooij-Dassen (2000), The competing demands of paid work and parent care: Middle-aged daughters providing assistance to elderly parents. *Research on Aging, 22* 165-187.

De Graaf, N.D., P.M. De Graaf, G. Kraaykamp and W.C. Ultee. (1998), *Family survey Dutch population 1998*. Nijmegen: Nijmegen University.

De Graaf, N.D., P.M. De Graaf, G. Kraaykamp and W.C. Ultee. (2000), *Family survey Dutch population 2000*. Nijmegen: University of Nijmegen.

De Graaf, N.D., P.M. De Graaf, G. Kraaykamp and W.C. Ultee. (2003), *Family survey Dutch population 2003*. Nijmegen: Nijmegen University.

De Graaf, N.D. and H.D. Flap (1988), "With a little help from my friends": Social resources as an explanation of occupational status and income in West Germany, the Netherlands, and the United States. *Social Forces, 67*, 452-472.

De Leeuw, E.D. and W. De Heer (2001), Trends in household survey nonresponse: A longitudinal and international comparison. In R.M. Groves, D.A. Dillman, J.L. Eltinge and R.J.A. Little (Eds.), *Survey nonresponse* (pp. 41-54). New York: Wiley.

De Ruijter, E. (2005), *Household outsourcing*. Utrecht: Utrecht University.

De Ruijter, J.M.P., A. Van Doorne-Huiskes and J.J. Schippers (2003), Size and causes of the occupational gender wage-gap in the Netherlands. *European Sociological Review, 19*, 345-361.

De Valk, H. (2004), Taakverdelingspreferenties van allochtone en autochtone jongeren in Nederland [Labor division preferences of ethnic minority and ethnic majority adolescents in the Netherlands]. *Mens en Maatschappij, 79*, 322-347.

De Vries, J. (2006), *Measurement error in family background variables: The bias in the intergenerational transmission of status, cultural consumption, party preference, and religiosity. Phd thesis (Radboud University Nijmegen)*.

Den Dulk, L. (2001), *Work-family arrangements in organisations: A cross-national study in the Netherlands, Italy, the United Kingdom, and Sweden. Phd thesis (Erasmus University Rotterdam)*.

Denuwelaere, M. (2003), Een ongelijke taakverdeling tussen man en vrouw: Van ouders naar kinderen [An unequal task-division between man and woman: From parents to children]. *Mens & Maatschappij, 78*, 355-378.

Dijkgraaf, M. and W. Portegijs (2008), Arbeidsdeelname en wekelijkse arbeidsduur van vrouwen [women's labor force participation and weekly work-hours]. In W. Portegijs and S. Keuzenkamp (Eds.), *Nederland deeltijdland* (pp. 17-30). Den Haag: Social Cultural Planning Office (SCP).

Dimova, R. and F.-C. Wolff (2008), Grandchild care transfers by ageing immigrants in France: Intra-household allocation and labour market implications. *European Journal of Population/Revue Européenne de Démographie, 24*, 315-340.

Drobnic, S., H.-P. Blossfeld and G. Rohwer (1999), Dynamics of women's employment patterns over the family life course: A comparison of the United States and Germany. *Journal of Marriage and the Family, 61*, 133-146.

Dwyer, J.W. and K. Seccombe (1991), Elder care as family labor: The influence of gender and family position. *Journal of Family Issues, 12*, 229-247.

Dykstra, P. (2004), Het zit in de familie. *Bevolking en Gezin, 33*, 3-28.

Dykstra, P. and T. Fokkema (2000), Partner en kinderen: Belemmerend of bevorderend voor beroepssucces? Beroepsmobiliteit van mannen en vrouwen met verschillende huwelijks- en ouderschapscarrieres [Partner and children: Impeding or stimulating occupational success? Occupational mobility of men and women with different marriage and parenthood histories]. *Mens en Maatschappij, 75*, 110-128.

Dykstra, P., M. Kalmijn, T.C.M. Knijn, A.E. Komter, A.C. Liefbroer and C.H. Mulder (2005), *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.

Dykstra, P.A., M. Kalmijn, T.C.M. Knijn, A.E. Komter, A.C. Liefbroer and C.H. Mulder (2007), *Codebook of the Netherlands Kinship Panel Study: A multi-actor, multi-method panel study on solidarity in family relationships, wave 2*. The Hague: Netherlands Interdisciplinary Demographic Institute.

Easterlin, R.A. (1980), *Birth and fortune: The impact of numbers on personal welfare*. New York: Basic Books.

Elder, G.H.J. (1985), *Life course dynamics. Trajectories and transitions. 1968-1980*. Ithaka, New York: Cornell University Press.

England, P. and G. Farkas (1986), *Households, employment, and gender: A social, economic and demographic view*. New York: Aldine.

Epstein, C.F. (2007), Great divides: The cultural, cognitive, and social bases of the global subordination of women. *American Sociological Review, 72*, 1-22.

Esping-Andersen, G. (2005), *Putting the horse in front of the cart: Towards a social model for mid-century Europe* [Lecture]. Dutch Scientific Council for Government Policy (WRR). Web document: http://www.wrr.nl

Ettner, S.L. (1995), The impact of 'parent care' on female labor supply decisions. *Demography, 32*, 63-80.

European Commission (2007), *Tackling the pay gap between men and women*. European Commission Communication. Web document: http://ec.europa.eu

European Commission (2008), *The life of women and men in Europe: A statistical portrait, 2008 edition*. Luxembourg: Office for Official Publications of the European Communities.

Eurostat (2008a), Employment rate by gender. Luxembourg: Eurostat.

Eurostat (2008b), Persons employed part-time in Europe, by sex, country and year. Luxembourg: Eurostat.

Euwals, R., M. Knoef and D. Van Vuuren (2007), *The trend in female labour force participation: What can be expected for the future?* Netherlands Bureau for Economic Policy Analysis (CPB). Web document: http://www.cpb.nl

Evandrou, M. and K. Glaser (2003), Combining work and family life: The pension penalty of caring. *Ageing & Society, 23*, 583-602.

Evertsson, M. (2006), The reproduction of gender: Housework and attitudes towards gender equality in the home among Swedish boys and girls. *British Journal of Sociology, 57*, 415-437.

Fagan, C. and J. Rubery (1996), The salience of the part-time divide in the european union. *European Sociological Review, 12*, 227-250.

Ferree, M.M. (1990), Beyond separate spheres: Feminism and family research. *Journal of Marriage and the Family, 52*, 866-884.

Fields, J. (2003), *America's families and living arrangements: 2003*. Washington, DC: U.S. Census Bureau.

Fokkema, T. and A.C. Liefbroer (2008), Trends in living arrangements in Europe: Convergence or divergence? *Demographic Research, 19*, 1351-1418.

Furstenberg, F.F. (2005), Banking on families: How families generate and distribute social capital. *Journal of Marriage and Family, 67*, 809-821.

Gager, C., T. Cooney, M. and K.T. Call (1999), The effects of family characteristics and time use on teenagers' household labor. *Journal of Marriage and the Family, 61*, 982-994.

Gilsing, R. (2007), *Liefst zoals thuis. Ouders en kinderen over buitenschoolse opvang [Preferably the way it is done at home. Parents and children about pre- and post-school childcare]*. Den Haag: Sociaal Cultureel Planbureau.

Gjerdingen, D.K. and B.A. Center (2005), First-time parents' postpartum changes in employment, childcare, and housework responsibilities. *Social Science Research, 34*, 103-116.

Glass, J., V.L. Bengtson and C. Chorn Dunham (1986), Attitude similarity in three-generation families: Socialization, status inheritance, or reciprocal influence? *American Sociological Review, 51*, 685-698.

Goldthorpe, J.H. (1987), *Social mobility and class structure in modern Britain*, 2nd ed., Oxford: Clarendon Press.

Gray, A. (2005), The changing availability of grandparents as carers and its implications for childcare policy in the UK. *Journal of Social Policy, 34*, 557-578.

Greenstein, T.N. (1996), Husbands' participation in domestic labor: Interactive effects of wives' and husbands' gender ideologies. *Journal of Marriage and the Family, 58*, 585-595.

Greenstein, T.N. (2000), Economic dependence, gender, and the division of labor in the home: A replication and extension. *Journal of Marriage and the Family, 62*, 322-335.

Gronau, R. (1980), Home production: A forgotten industry. *The Review of Economics and Statistics, 62*, 408-416.

Groot, W. and H. Pott-Buter (1993), Why married women's labor supply in the Netherlands has increased? *De Economist, 141*, 238-255.

Gupta, S. (1999), The effects of transitions in marital status on men's performance of housework. *Journal of Marriage and the Family, 61*, 700-711.

Gupta, S. (2006a), The consequences of maternal employment during men's childhood for their adult housework performance. *Gender & Society, 20*, 60-86.

Gupta, S. (2006b), Her money, her time: Women's earnings and their housework hours. *Social Science Research, 35*, 975-999.

Guzman, L. (2004), *Grandma and grandpa taking care of the kids: Patterns of involvement (Childtrends research brief 2004-17)*. Washington DC: Childtrends.

Hagestad, G.O. and B.L. Neugarten (1985), Age and the life course. In R.H. Binstock, E. Shanas, G.L. Maddox, G.C. Myers and J.H. Schulz (Eds.), *Handbook of aging and the social sciences* (Vol. 2, pp. 35-61). New York: Van Nostrand Reinhold.

Hair Hunts, H.J. and R.J. Avery (1998), Relatives as child care givers: After hours support for nontraditional workers. *Journal of Family and Economic issues, 19*, 315-341.

Han, W.-J. (2004), Non standard work schedules and child care decisions: Evidence from the NICMD study of early child care. *Early Childhood Research Quarterly, 19*, 231-256.

Hank, K. and I. Buber (2009), Grandparents caring for their grandchildren: Findings from the 2004 survey of health, ageing, and retirement in Europe. *Journal of Family Issues, 30*, 53-73.

Hartog, J. and J. Theeuwes (1985), The emergence of the working wife in Holland. *Journal of Labor Economics, 3*, S235-S255.

Hayes, B.C. and R.L. Miller (1989), Intergenerational occupational mobility within the republic of Ireland - the ignored female dimension. *Women's Studies International Forum, 12*, 439-445.

Heckman, J.J. (1979), Sample selection bias as a specification error. *Econometrica, 47*, 153-162.

Heitmueller, A. and K. Inglis (2007), The earnings of informal carers: Wage differentials and opportunity costs. *Journal of Health Economics, 26*, 821-841.

Hendrickx, J., W. Bernasco and P.M. De Graaf (2001), Couples' labour-market participation in the Netherlands. In H.-P. Blossfeld and S.D. Drobnic (Eds.), *Careers of couples in contemporary societies: From male breadwinners to dual earner families* (pp. 77-97). Oxford: Oxford University Press.

Henkens, K., Y. Grift and J. Siegers (2002), Changes in female labour supply in the Netherlands 1989-1998: The case of married and cohabiting women. *European Journal of Population, 18*, 39-57.

Henretta, J.C., E. Grundy and S. Harris (2002), The influence of socio-economic and health differences on parents' provision of help to adult children: A British-United States comparison. *Ageing & Society, 22*, 441-458.

Henz, U. (2004), The effects of informal care on paid-work participation in Great Britain: A lifecourse perspective. *Ageing & Society, 24*, 851-881.

Hertz, R. and F.I.T. Ferguson (1996), Childcare choice and constraints in the United States: Social class, race and influence of family views. *Journal of Comparative Family Studies, 27*, 249-280.

Hiller, D.V. (1984), Power dependence and division of family work. *Sex Roles, 10*, 1003-1019.

Hogan, D.P., D.J. Eggebeen and C.C. Clogg (1993), The structure of intergenerational exchanges in American families. *American Journal of Sociology, 98*, 1428-1458.

Hook, J.L. (2004), Reconsidering the division of household labor: Incorporating volunteer work and informal support. *Joural of Marriage and the Family, 66*, 101-117.

Horowitz, A. (1985), Sons and daugthers as care-givers to older parents: Differences in role performance and consequences. *The Gerontologist, 25*, 612-617.

Ingersoll-Dayton, B., M.E. Starrels and D. Dowler (1996), Caregiving for parents and parents-in-law: Is gender important? *Gerontologist, 36*, 483-491.

Inglehart, R. (1977), *The silent revolution: Changing values and political styles among western publics*. Princeton, NJ: Princeton University Press.

Jansen, M. and M. Kalmijn (2002), Investments in family life: The impact of value orientations on patterns of consumption, production and reproduction in married and cohabiting couples. In R. Lesthaeghe (Ed.), *Meaning and choice: Value orientations and life course decisions* (pp. 129-159). Den Haag: Netherlands Interdisciplinary Demographic Institute.

Johnson, J.O. (2005), *Who's minding the kids?: Child care arrangements: Winter 2002*. Washington D.C.: U.S. Census Bureau.

Johnson, R.W. and A.T. Lo Sasso (2000), *The trade-off between hours of paid employment and time assistance to elderly parents at midlife*. Washington DC: The Urban Institute.

Kalmijn, M. (1994), Mother's occupational status and children's schooling. *American Sociological Review, 59*, 257-275.

Kamo, Y. (1991), A nonlinear effect of the number of children on the division of household labor. *Sociological Perspectives, 34*, 205-219.

Kaufman, D.R. and B.L. Richardson (1982), *Achievement and women: Challenging the assumptions*. New York: The Free Press.

Keshk, O.M.G. (2003), Cdsimeq: A program to implement two-stage probit least squares. *The Stata Journal, 3*, 157-167.

Keuzenkamp, S. and E. Steenvoorden (2008), Arbeidsdeelname en arbeidsduur internationaal vergeleken [Labour force participation and work-hours compared internationally]. In W. Portegijs and S. Keuzenkamp (Eds.), *Nederland deeltijdland. Vrouwen en deeltijdwerk* (pp. 46-64). Den Haag: Sociaal Cultureel Planbureau.

Khazzoom, A. (1997), The impact of mother's occupations on children's occupational destinations. *Research in Stratification and Mobility, 15*, 57-89.

Klein Ikkink, K., T. Van Tilburg and K.C.P.M. Knipscheer (1999), Perceived instrumental support exchanges in relationships between elderly parents and their adult children: Normative and structural explanations. *Journal of Marriage and the Family, 61*, 831-844.

Knijn, T.C.M. and A.C. Liefbroer (2006), More than kind: Instrumental support in families. In P.A. Dykstra, M. Kalmijn, T.C.M. Knijn, A.E. Komter, A.C. Liefbroer and C.H. Mulder (Eds.), *Family solidarity in the Netherlands* (pp. 89-106). Amsterdam: Dutch University Press.

Kooreman, P. and S. Wunderink (1996), *The economics of household behaviour*. London: Macmillan Press Ltd.

Kops, Y., T. Van Der Lippe and A. Jager (2006), Combination pressure: The paid work-family balance of men and women in European countries. *Acta Sociologica, 49*, 303-319.

Korupp, S.E. (2000), *Mothers and the process of social stratification*. Utrecht: Utrecht University.

Korupp, S.E. (2002), The intergenerational transmission of occupational status and sex-typing at children's labour market entry. *The European Journal of Women's Studies 9*, 7-29.

Kox, H. and L. Rubalcaba (2004), *Business services and the changing structure of European economic growth* (183). The Hague: CPB Netherlands Bureau for Economic Policy Analysis.

Kroska, A. (2004), Divisions of domestic work: Revising and expanding the theoretical explanations. *Journal of Family Issues, 25*, 900-932.

Kuhlthau, K. and K.O. Mason (1996), Market child care versus care by relatives. *Journal of Family Issues, 17*, 561-578.

Kuijsten, A. (1999), Households, families and kin networks. In L. Van Wissen and P. Dykstra (Eds.), *Population issues: An interdisciplinary focus* (pp. 87-122). New York: Kluwer Academic/Plenum Publishers.

Künemund, H. (2008), Intergenerational relations within the family and the state. In C. Saraceno (Ed.), *Families, ageing and social policy. Intergenerational solidarity in European welfare states* (Vol. 7, pp. 105-122). Cheltenham, UK: Edward Elgar Publishing.

Künemund, H. and M. Rein (1999), There is more to receiving than needing: Theoretical arguments and empirical explorations of crowding in and crowding out. *Ageing & Society, 19*, 93-121.

Kurz, D. (2002), Caring for teenage children. *Journal of Family Issues, 23*, 748-767.

Lafortune, G. and G. Balestat (2007), Trends in severe disability among elderly people: Assessing the evidence in 12 OECD countries and the future implications. In OECD (Ed.), *OECD health working papers* (Vol. 26, pp. 1-81). Washington DC: OECD Publishing

Lesthaeghe, R. (Ed.) (2002), *Meaning and choice: Value orientations and life course decisions* (Vol. 37). The Hague/Brussels: NIDI/CBSG.

Liefbroer, A.C. and P. Dykstra (2000), *Levenslopen in verandering: Een studie naar ontwikkelingen in de levenslopen van Nederlanders geboren tussen 1900 en 1970 [life courses in change: A study of developments in the life courses of Dutch born between 1900 and 1970]* (WRR Voorstudies en Achtergronden 107). Den Haag: WRR.

Lin, N., J.C. Vaughn and W.M. Ensel (1981), Social resources and occupational status attainment. *Social Forces, 59*, 1163-1181.

Lippman, L., S. Vandivere, J. Keith and A. Atienza (2008), *Child care use by low-income families: Variations across states* (23). Washington DC: Childtrends.

Litwin, H. and C. Attias-Donfut (2009), The inter-relationship between formal and informal care: A study in France and Israel. *Ageing and Society, 29*, 71-91.

Lowe Vandell, D., K. McCartney, M. Tresch Owen, C. Booth and A. Clarke-Stewart (2003), Variations in child care by grandparents during the first three years. *Journal of Marriage and Family, 65*, 375-382.

Maddala, G.S. (1983), *Limited-dependent and qualitative variables in econometrics* (Vol. 3). Cambridge (England): Cambridge University Press.

Manke, B., B.L. Seery, A.C. Crouter and S.M. McHale (1994), The three corners of domestic labor: Mothers', fathers', and children's weekday and weekend housework. *Journal of Marriage and the Family, 56*, 657-668.

Marks, N.F. (1996), Caregiving across the lifespan: National prevalence and predictors. *Family Relations, 45*, 27-36.

Marks, N.F. and J.D. Lambert (1997), *Family caregiving: Contemporary trends and issues*. Madison (WI): Center for Demography and Ecology, University of Wisconsin-Madison.

Marsden, P.V. and J.S. Hurlbert (1988), Social resources and mobility outcomes: A replication and extension. *Social Forces, 66*, 1038-1059.

Matud, M.P., I. Ibanez, J.M. Bethencourt, R. Marrero and M. Carballeira (2003), Structural gender differences in perceived social support. *Personality and Individual Differences, 35*, 1919-1929.

Maume, D.J. (2006), Gender differences in restricting work efforts because of family responsibilities. *Journal of Marriage and Family, 68*, 859-869.

Mayer, K.U. (1986), Structural constraints on the life course. In M. Kohli and J.W. Meyer (Eds.), *Social structure and social construction of life stages [special issue Human Development]* (pp. 163-170).

McDonald, J.F. and R.A. Moffitt (1980), The uses of tobit analysis. *The Review of Economics and Statistics, 62*, 318-321.

Menaghan, E.G. and T.L. Parcel (1991), Determining children's home environments: The impact of maternal characteristics and current occupational and family conditions. *Journal of Marriage and the Family, 53*, 417-431.

Merens, A., M. Cuijpers and A. Boelens (2004), Politieke en maatschappelijke besluitvorming [Political and societal decisionmaking]. In W. Portegijs, A. Boelens and L. Olsthoorn (Eds.), *Emancipatiemonitor 2004* (pp. 179-208). Den Haag/Rijswijk: Sociaal en Cultureel Planbureau.

Merens, A., B. Hermans and M. Cuijpers (2006), Politieke en maatschappelijke besluitvorming. In W. Portegijs, B. Hermans and V. Lalta (Eds.), *Emancipatiemonitor 2006: Veranderingen in de leefsituatie en levensloop* (pp. 207-234). Den Haag: Social Cultural Planning Office.

Mincer, J. (1985), Intercountry comparisons of labor force trends and of related developments: An overview. *Journal of Labor Economics, 3*, 1-32.

Mincer, J. and S. Polachek (1974), Family investments in human capital: Earnings of women. *Journal of Political Economy, 82*, 76-108.

Mischel, W. (1966), A social-learning view of sex differences in behavior. In E.E. Maccoby (Ed.), *The development of sex differences*. Stanford, California: Stanford University Press.

Moen, P. (1991), Paid work, parenting, and housework: Gender strategies and myths. *Contemporary Sociology, 20*, 674-677.

Moen, P., M.A. Erickson and D. Dempster-McClain (1997), Their mother's daughters? The intergenerational transmission of gender attitudes in a world of changing roles. *Journal of Marriage and the Family, 59*, 281-293.

Moen, P., J. Robison and V. Fields (1994), Women's work and caregiving roles: A life course approach. *Journal of Gerontology: Social Sciences, 49*, S176-186.

Monna, B. and A.H. Gauthier (2008), A review of the literature on the social and economic determinants of parental time. *Journal of Family and Economic Issues, 29*, 634-653.

Motel-Klingebiel, A., C. Tesch-Roemer and H.-J. von Kondratowitz (2005), Welfare states do not crowd out the family: Evidence for mixed responsibility from comparative analyses. *Ageing & Society, 25*, 863-882.

NIBUD (2008), Web document: *http://www.Nibud.nl*

Nusselder, W.J., C.W.N. Looman, O.H. Franco, A. Peeters, A.S. Slingerland and J.P. Mackenbach (2008), The relation between non-occupational physical activity and years lived with and without disability. *Journal of Epidemiology and Community Health, 62*, 823-828.

OECD (2008), *OECD economic surveys: Netherlands - volume 2008 issue 1* Luxembourg: OECD.

Ogg, J. and S. Renaut (2006), The support of parents in old age by those born during 1945-1954: A European perspective. *Ageing & Society, 26*, 723-743.

Oppenheimer, V.K. (1994), Women's rising employment and the future of the family in industrial societies. *Population and Development Review, 20*, 293-342.

Pavalko, E.K. and J.E. Artis (1997), Women's caregiving and paid work: Causal relationships in late midlife. *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences, 52B*, S170-180.

Penha-Lopes, V. (2006), To cook, sew, to be a man: The socialization for competence and black men's involvement in housework. *Sex Roles, 54*(3-4), 261-274.

Perenboom, R.J.M. (2005), Wat is de gezonde levensverwachting van de bevolking in Nederland? [What is the life expectancy in good health of the Dutch population?]. In RIVM Rijksinstituut Volksgezondheid en Milieu (Ed.), *Volksgezondheid toekomst verkenning: Nationaal kompas volksgezondheid*. Bilthoven: RIVM.

Pittman, J.F. and D. Blanchard (1996), The effects of work history and timing of marriage on the division of household labor: A life-course perspective, *Journal of marriage and the family, 58*(1), 78-90

Plantenga, J. and C. Remery (2006), *The gender pay gap: Origins and policy responses. A comparative review of thirty European countries*. European Commission Expert Group on Gender, Social Inclusion and Employment. Web document: http://www.bmfsfj.de

Plantenga, J. and M. Siegel (2004), *Position paper 'childcare in a changing world'. Part 1 European childcare strategies*. Rijksuniversiteit Groningen. Web document: http://www.childcareinachangingworld.nl

Pool, M. and N. Lucassen (2005), *De glazen tussenwand: Waar ouders tegenaan lopen bij de verdeling van arbeid, zorg en huishouden [The glass shield: Barriers that parents face in their division of paid work, care and housework]*. Den Haag: Nederlandse Gezinsraad.

Portegijs, W. (2006), Generatie en emancipatie [Generation and emancipation]. In W. Portegijs, B. Hermans and V. Lalta (Eds.), *Emancipatiemonitor 2006: Veranderingen in de leefsituatie en levensloop* (pp. 286-301). Den Haag: Social Cultural Planning Office / Statistics Netherlands.

Portegijs, W., M. Cloïn, I. Ooms and I. Eggink (2006), *Hoe het werkt met kinderen. Moeders over kinderopvang en werk [The ways things work with children. Mothers about childcare and employment]*. Den Haag: Sociaal en Cultureel Planbureau (SCP).

Portegijs, W. and S. Keuzenkamp (Eds.) (2008), *Nederland deeltijdland [The Netherlands: Part-time nation]*. Den Haag: Social Cultural Planning Office (SCP).

Pott-Buter, H. (1993), *Facts and fairy tales about female labor, family and fertility. A seven-country comparison, 1950-1990*. Amsterdam: University of Amsterdam.

Powers, R.S. (2003), Doing the daily grind: The effects of domestic labor on professional, managerial, and technical workers' earnings. *Gender Issues, 21*, 3-23.

Presser, H.B. (1989), Some economic complexities of child care provided by grandmothers. *Journal of Marriage and the Family, 51*, 581-591.

Presser, H.B. (1994), Employment schedules among dual-earner spouses and the division of household labor by gender. *American Sociological Review, 59*, 348-364.

Presser, H.B. (2003), *Working in a 24/7 economy: Challenges for American families*. New York: Russell Sage Foundation.

Prismant (2008), *Regiomarge 2008: De arbeidsmarkt van verpleegkundigen, verzorgenden en sociaalagogen 2008-2012*. Utrecht: Prismant.

Rapoport, R. and R.N. Rapoport (1971), Early and later experiences as determinants of adult behaviour: Married women's family and career patterns. *British Journal of Sociology, 22*, 16-30.

Reskin, B. (1993), Sex segregation in the workplace. *Annual Review of Sociology, 19*, 241-270.

Riksen-Walraven, J.M.A. (2002), *Wie het kleine niet eert ...: over de grote invloed van vroege sociale ervaringen [Those who do not value small things ...: on the large impact of early social experiences]*. Inaugurele rede. Nijmegen: Katholieke Universiteit, web document: http://www.ru.nl

Román, A., J.J. Schippers and J.D. Vlasblom (2007), *Vrouwen, gezinnen en werk: Een cohortbenadering van de arbeidsparticipatie in Nederland [Women, families and work: A cohort-approach to labour force participation in the Netherlands]*. Tilburg: Organisatie voor Strategisch Arbeidsmarktonderzoek / Institute for Labour Studies.

Roncek, D.W. (1992), Learning more from tobit coefficients: Extending a comparative analysis of political protest. *American Sociological Review, 57*, 503-507.

Rosenfeld, R.A. (1978), Women's intergenerational occupational mobility. *American Sociological Review, 43*, 36-46.

Rosenfeld, R.A. and G.E. Birkelund (1995), Women's part-time work: A cross-national comparison. *European Sociological Review, 11*, 111-134.

Rossi, A.S. and P.H. Rossi (1990), *Of human bonding. Parent-child relations across the life course*. New York: Walter de Gruyter Inc.

Sanchez, L. and E. Thomson (1997), Becoming mothers and fathers: Parenthood, gender, and the division of labor. *Gender and Society, 11*, 747-772.

Sanders, K. (1997), Mothers and daughters in the Netherlands: The influence of mother's social background on daughters' labour market participation after they have children. *The European Journal of Women's Studies, 4*, 165-181.

Schippers, J.J. (1987), *Beloningsverschillen tussen mannen en vrouwen. Een economische analyse [Wage differentials between men and women. An economic analysis]. Phd thesis (Utrecht University)*.

Schulz, E., J. Mortensen, J. Geyer, B. Mattil and S. Tsolova (2006), Education, employment and the life course. In N. Van Nimwegen and G. Beets (Eds.), *Demography monitor 2005: Demographic trends, socioeconomic impacts, and policy implications in the European union* (Vol. 72, pp. 97-148). The Hague: Netherlands Interdisciplinary Demographic Institute.

SCP (2000), *Sociaal en cultureel rapport 2000: Nederland in Europa [Social cultural report 2000: The Netherlands in Europe]*. Den Haag: Sociaal en Cultureel Planbureau [Social Cultural Planning Office].

Seltzer, J.A., C.A. Bachrach and S.M. Bianchi (2005), Explaining family change and variation: Challenges for family demographers. *Journal of Marriage and the Family, 67*, 908-926.

Shelton, B. and D. John (1996), The division of household labor. *Annual Review of Sociology, 22*, 299-322.

Shelton, B.A. and D. John (1993), Does marital status make a difference? Housework among married and cohabiting men and women. *Journal of Family Issues, 14*, 401-420.

Siegers, J.J. (1984), Uurloonverschillen tussen mannen en vrouwen en de arbeidsduurverdeling binnen het huishouden [Gender differences in wage rates and the division of time spent on payed work within the household]. *Tijdschrift voor Politieke Ekonomie, 7*, 106-114.

Silverstein, M. and V.L. Bengtson (1997), Intergenerational solidarity and the structure of adult child-parent relationships in American families. *American Journal of Sociology, 103*, 429-461.

Silverstein, M., T.M. Parrott and V.L. Bengtson (1995), Factors that predispose middle-aged sons and daughters to provide social support to older parents. *Journal of Marriage and the Family, 57*, 465-475.

Solomon, C.R., A.C. Acock and A.J. Walker (2004), Gender ideology and investment in housework: Postretirement change. *Journal of Family Issues, 25*, 1050-1071.

Solomon, S.E., E.D. Rothblum and K.F. Balsam (2005), Money, housework, sex, and conflict: Same-sex couples in civil unions, those not in civil unions, and heterosexual married siblings. *Sex Roles, 52*, 561-575.

Solomon, Y., J. Warin, C. Lewis and W. Langford (2002), Intimate talk between parents and their teenage children: Democratic openness or covert control? *Sociology, 36*, 965-983.

South, S.J. and G. Spitze (1994), Housework in marital and nonmarital households. *American Sociological Review, 59*, 327-337.

Spiess, C.K. and A.U. Schneider (2003), Interactions between care-giving and paid work hours among European midlife women, 1994 to 1996. *Ageing & Society, 23*, 41-69.

Spitze, G. and J. Logan (1990), Sons, daughters, and intergenerational social support. *Journal of Marriage and the Family, 52*, 420-430.

Spitze, G. and K.A. Loscocco (2000), The labor of sisyphus? Women's and men's reactions to housework. *Social Science Quarterly, 81*, 1087-1101.

Starrels, M.E. (1992), Attitude similarity between mothers and children regarding maternal employment. *Journal of Marriage and the Family, 54*, 91-103.

Statistics Netherlands (2008). Table: Personen in particuliere huishoudens naar positie in het huishouden, leeftijd en geslacht [Persons in private households by household type, age and gender]. Voorburg/Heerlen: Statistics Netherlands (CBS).

Stevens, G. and M. Boyd (1980), The importance of mother: Labor force participation and intergenerational mobility of women. *Social Forces, 59*, 186-199.

Stone, R., G.L. Cafferata and J. Sangl (1987), Caregivers of the frail elderly: A national profile. *The Gerontologist, 27*, 616-626.

Sundström, M. and A.-Z.E. Duvander (2002), Gender division of childcare and the sharing of parental leave among new parents in Sweden. *European Sociological Review, 18*, 433-447.

Szinovacz, M.E. (2000), Changes in housework after retirement: A panel analysis. *Journal of Marriage and the Family, 62*, 78-92.

Szinovacz, M.E. and A. Davey (2008), The division of parent care between spouses. *Ageing & Society, 28*, 571-597.

Täht, K. and M.C. Mills (2008), *Non-standard work schedules and parent-child interaction in the Netherlands*. Paper presented at the Netherlands Kinship Panel Study seminar, Amsterdam.

Tennstedt, S. (1999), *Family caregiving in an aging society*. Paper presented at the U.S. Administration on Aging Symposium: Longevity in the New American Century, Baltimore, MD.

Thornton, A., D.F. Alwin and D. Camburn (1983), Causes and consequences of sex-role attitudes and attitude change. *American Sociological Review, 48*, 211-227.

Tichenor, V.J. (2005), *Earning more and getting less: Why successful wives can't buy equality*. Camden/Newark/New Brunswick: Rutgers University Press

Timmermans, J. and E. Pommer (2008), Familiezorg [Family care]. In P. Schnabel, R. Bijl and J. De Hart (Eds.), *Betrekkelijke betrokkenheid. Studies in sociale cohesie* (pp. 137-168). Den Haag: Social Cultural Planning Office.

Tobin, J. (1958), Estimation of relationships for dependent variables. *Econometrica, 26*, 24-36.

Tobio, C. (2004), Kinship support, gender and social policy in France and Spain. In T. Knijn and A. Komter (Eds.), *Solidarity between the sexes and the generations* (pp. 150-166). Cheltenham (UK): Edward Elgar Publishing Limited.

Treas, J. (2008), The dilemma of gender specialization: Substituting and augmenting wives' household work. *Rationality and Society, 20*, 259-282.

Treiman, D.J. and K. Terrell (1975), Sex and the process of status attainment: A comparison of working women and men. *American Sociological Review, 40*, 174-200.

Ultee, W.C. and H.B.G. Ganzeboom (1992), *Netherlands family survey 1992/93*. Nijmegen: Department of Sociology, Nijmegen University.

UNICEF (2008), *The child care transition: A league table of early childhood education and care in economically advanced countries*. Florence: UNICEF Innocenti Research Centre

U.S. Census Bureau (2006). Table FG7. Family groups by family type, sex, and race and hispanic origin of reference person: 2006. In Current Population Survey 2006 (Ed.). Washington DC: U.S. Census Bureau.

Uttal, L. (1999), Using kin for child care: Embedment in the socioeconomic networks of extended families. *Journal of Marriage and the Family, 61*, 845-857.

Uunk, W., M. Kalmijn and R. Muffels (2005), The impact of young children on women's labour supply: A reassessment of institutional effects in Europe. *Acta Sociologica, 48*, 41-62.

Van Der Lippe, T. (1993), *Arbeidsverdeling tussen mannen en vrouwen. Een interdisciplinaire studie naar betaald en huishoudelijk werk binnen huishoudens [Labor division between men and women. An interdisciplinary study of paid and domestic labor within households]*: Utrecht University (Phd thesis).

Van Der Lippe, T. (2001), The effect of individual and institutional constraints on hours of paid work of women: An international comparison. In T. Van Der Lippe and L. Van Dijk (Eds.), *Women's employment in a comparative perspective* (pp. 221-243). New York: Aldine de Gruyter.

Van Der Lippe, T. and J.J. Siegers (1994), Division of household and paid labour between partners: Effects of relative wage rates and social norms. *Kyklos, 47*, 109-137.

Van Der Lippe, T., A. Van Doorne-Huiskes and J. Siegers (1993), Het aandeel van mannen in huishoudelijk werk [Men's share in household labor]. *Mens en Maatschappij, 68*, 133-152.

Van Dijk, L. (1994), *Choices in child care: The distribution of child care among mothers, fathers, and non-parental care providers*. Utrecht: Utrecht University (Phd thesis).

Van Dijk, L. and J.J. Siegers (1996), The effect of the supply of subsidized day-care facilities on female labour supply. *Labour, 10*, 559-582.

Van Doorne-Huiskes, J., P. Dykstra, E. Nievers, J. Oppelaar and J.J. Schippers (2002), *Mantelzorg: Tussen vraag en aanbod [Informal care: Between supply and demand]* (63). Den Haag: NIDI.

Van Gils, W. (2007), *Full-time working couples in the Netherlands: Causes and consequences*. Nijmegen: ICS Dissertation Series.

Van Herpen, M., V. Lalta and A. Merens (2006), Onderwijs [Education]. In W. Portegijs, B. Hermans and V. Lalta (Eds.), *Emancipatiemonitor 2006. Veranderingen in de leefsituatie en levensloop* (pp. 38-65). Den Haag: Social Cultural Planning Office (SCP).

Van Nimwegen, N. and G. Beets (2006), *Demography monitor 2005: Demographic trends, socio-economic impacts and policy implications in the European union* (Social Situation Observatory). Den Haag: Netherlands Interdisciplinary Demographic Institute.

Van Putten, A.E., P.A. Dykstra and J.J. Schippers (2008), Just like mom? The intergenerational reproduction of women's paid work. *European Sociological Review, 24*, 435-449.

Venn, S., S. Arber, R. Meadows and J. Hislop (2008), The fourth shift: Exploring the gendered nature of sleep disruption among couples with children. *The British Journal of Sociology, 59*, 79-97.

Verbakel, E. (2008), *The partner as a resource or restriction? Labour market consequences of husbands and wives and the consequences for inequality between couples*. Nijmegen: ICS Dissertation Series.

Verbeek, M. (2004), *A guide to modern econometrics* (2nd ed.). Chichester (UK): John Wiley & Sons.

Vlasblom, J.D. and J.J. Schippers (2005), *Arbeidsmarktconsequenties van kinderen krijgen: Een verkenning van de langetermijngevolgen [Labour market consequences of having children: An exploration of the long-term consequences]* (OSA-publication A216). Tilburg: OSA Institute for Labour Studies.

Wang, R., S.M. Bianchi and S.B. Raley (2005), Teenagers' internet use and family rules: A research note. *Journal of Marriage and Family, 67*, 1249-1258.

Weitzman, L. (1975), Sex-role socialization. In J. Freeman (Ed.), *Women: A feminist perspective* (pp. 153-216). New York: Mayfield.

West, C. and D. Zimmerman (1987), Doing gender. *Gender and Society, 1*, 125-151.

Wheelock, J. and K. Jones (2002), "Grandparents are the next best thing": Informal childcare for working parents in urban Britain. *Journal of Social Policy, 31*, 441-464.

Whitbeck, L.B. and V. Gecas (1988), Value attributions and value transmission between parents and children. *Journal of Marriage and the Family, 50*, 829-840.

White, L.K. and D.B. Brinkerhoff (1981a), Children's work in the family: Its significance and meaning. *Journal of Marriage and the Family, 43*, 789-798.

White, L.K. and D.B. Brinkerhoff (1981b), The sexual division of labor: Evidence from childhood. *Social Forces, 60*, 170-181.

Witt, S.D. (1997), Parental influence on children's socialization to gender roles. *Adolescence, 32*, 253-260.

Wolf, D.B. and B.J. Soldo (1994), Married women's allocation of time to employment and care of elderly parents. *The Journal of Human Resources, 29*, 1259-1276.

Wrigth, D.W. and R. Young (1998), The effects of family structure and maternal employment on the development of gender-related attitudes among men and women. *Journal of Family Issues, 19*, 300-315.

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