

Can you stay at home today? The relationship between economic dependence, parents' occupation and care leave for sick children

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Can you stay at home today? The relationship between economic dependence, parents' occupation and care leave for sick children¹

by

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Abstract

This is one of only a few studies on the division of care leave for sick children between parents in Sweden and the first to attempt to examine the importance of differences in parents' work characteristics. The study uses register data for parents with children born in 1999-2002 to analyse two aspects of working life that may influence how parents divide care leave between them: The parents' relative wages and differences in their occupations. First, the results show that a father's share of care leave increases as the mother's economic dependence decreases. This suggests that decisions about care leave are influenced by bargaining power gained through relative economic resources. Second, the resources of couples where both partners work in the same occupation are more equal than the resources of other couples. Their wages are more similar, and they also divide care leave more equally than couples where the partners work in different occupations. However, the fact that couples who work in the same occupation tend to share more equally does not seem to be explained by similarities in the partners' work characteristics or by relatively low economic dependence of women, but instead may be explained by unmeasured, stable characteristics. Gender egalitarianism and greater possibilities for women in terms of career and wages are put forward as possible characteristics for couples working in the same occupation that may influence the way they divide care leave.

Keywords: Care leave for sick children, temporary parental leave, gender division of work, relative resources, economic dependence, occupations JEL-codes: D13, J13, J16

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1 Introduction

This study focuses on the part of Swedish parental leave policy that enables parents to stay at home from paid work to care for a sick child. Women use almost two thirds of this leave, and the aim of this study is to assess the importance of economic dependence within families and of differences in work characteristics between women and men for this gender-based division of leave. One of the official aims of the introduction of a gender-neutral parental leave policy in 1974, including leave to care for sick children, was to further gender equality. The policy makers argued that if men's share of the care work carried out in families increased, the circumstances of working women and men would become more similar and in this way gender equality would be enhanced, not only within the family but also in the labour market as a whole (Government Bill 1973:47).

The parental leave system consists of three parts: the main parental leave part that enables parents to care for a child full-time; maternity allowance that may be used by the mother before the birth of the child; and finally temporary parental leave, which includes care leave for sick children and ten what are known as "daddy days" per child that fathers may use to stay at home just after the birth of the child. At the beginning, the expectations of the policy makers were hardly met at all. From 1974 to 1985, men's use of the main parental leave part rose from 0 to a mere 6 per cent of the total number of leave days used by parents each year. By 2011, men's use had increased substantially, but still only amounted to 24 per cent of the leave days. Since its introduction, men have taken a greater share of the care leave for sick children (hereafter called care leave), between 32 and 40 per cent. In 2011, their share amounted to 36 per cent (Statistics Sweden 2012). The policy makers back in 1974 would presumably view this development of men's use of parental leave insurance as an improvement, but they would also probably wonder why parents have not changed their behaviour more in forty years.

The reasons behind this skewed division of parental leave in Sweden and other Nordic countries have been analysed in a number of studies (e.g., Bygren and Duvander 2006; Haas et al. 2002; Lammi-Taskula 2008; Naz 2010; Sundström and Duvander 2002). These studies have analysed only the main part of the parental leave system. There are only a few previous studies on the division of care leave (Amilon 2007; Eriksson 2011, see also Eek and Axmon 2011). The results of these studies indicate that relative economic resources are relevant for the division of care leave. This relationship has, however, not been studied using the well-established measure of relative economic resources, or economic dependence, commonly used in research on the division of domestic labour. Nor are there any studies on the possible influence of differences in the parents' work characteristics on their division of care leave, although a descriptive study indicates that such differences are important when parents decide who is going to stay at home when a child suddenly falls ill (Eek and Axmon 2011). The present study enhances the knowledge about the division of care leave between mothers and fathers by analysing the relationship between economic dependence of differences in work characteristics by studying the division of care leave in couples where the mother and the father have the same occupation, with occupation functioning as a proxy for similarities in their work characteristics. The analysis is conducted with Swedish register data using OLS and household fixed effects regression.

Below, the Swedish parental leave system is described briefly. The following section discusses the relative resources perspective and its relevance for the division of care leave within couples, including how parents decide who will stay at home with a sick child. This section also reports on the results of previous studies on care leave. Thereafter, the likely importance of parents' work characteristics on their division of care leave is discussed. The subsequent section describes data and method, and is followed by a section on the results. The paper concludes with a summary and discussion of the results.

2 The Swedish parental leave system

The core part of the Swedish parental leave system is the main parental leave part (hereafter called parental leave) that parents primarily use to care for a child full-time during the first year or years of a child's life. During the period studied here, this leave comprised 450 days (approx. 15 months) per child for children born between 1998 and 2001 and 480 days (approx. 16 months) for children born in 2002. Parents do not have to use the parental leave benefit every day of the week while they are at home and the leave can be used until the child turns eight. This means that parents can extend their

full-time leave period beyond the 15 (16) months or use parental leave to take shorter leave later on. The days are individualized, but parents may transfer days to each other. In 1995, the first so called "daddy month" was introduced, which meant that 30 of each parent's days could no longer be transferred to the other parent. Another non-transferable month was introduced in 2002, and at the same time the duration of parental leave was extended by one month. The level of reimbursement has varied over the years between 75 and 90 per cent of current earnings for 360 (390) of the leave days. The remaining 90 days are reimbursed at a flat rate. There is an income ceiling in the insurance, which has also varied over the years. The ceiling is tied to the consumer price index (The Swedish Social Insurance Agency 2011a; 2011b).

Temporary parental leave consists of two parts, care leave for sick children and the so called "daddy days". Care leave can be used by a parent who stays at home from work to care for a sick child, to take the child to a doctor or nurse for check-ups etc., and to care for the child when the ordinary carer is sick. The leave can be used either for a full day or part of a day. The parent is reimbursed at (almost) 80 per cent of his or her earnings but as with the other parts of the parental leave system, there is an income cap that is determined annually using the consumer price index. To be entitled to care leave, a parent has to be in paid work or on unemployment benefit. Each parent can use up to 120 days of care leave per child and year until the child turns twelve, but parents cannot use this leave simultaneously for the same child (and most parents only use a small fraction of the days they are entitled to, see the results section). At the birth of a child, the father (or someone close to the family) is entitled to an extra ten days of temporary parental leave that can be used up to 60 days after birth, what are known as "daddy days" (The Swedish Social Insurance Agency 2011b; 2011c).

The third part of the system is maternity allowance that can be used by pregnant women before birth if they have a physically demanding job and reduced working capacity. The length of the leave depends on the cause behind the need for leave. During the time period studied, the reimbursement level was the same as for temporary parental leave (The Swedish Social Insurance Agency 2011b).

3 Relative economic resources

When a child comes down with the flu or some other illness that prevents it from attending formal childcare, the parents have to rearrange their schedules to be able to stay at home and care for the child. The care leave may pose a welcome break from work. This is, for example, evident in the debate and research on abuse of the care leave system (c.f., Engström et al. 2006). The leave is, however, likely to cause a certain amount of trouble, especially as the new arrangements for work and care often have to be set in place quickly. A replacement may have to be called in at work, meetings cancelled etc. (c.f., Eek and Axmon 2011). Care leave is therefore probably often unwanted and it is likely that parents have to negotiate who is going to stay at home. One way of understanding these negotiations is to make use of the relative resources perspective. This perspective suggests that the relative resources of the partners such as income and education influence their bargaining power in negotiations within the couple. Having the greatest resources in a couple gives you an advantage that can be used to negotiate a favourable deal. This may, for example, imply that the most resourceful partner gets to do fewer of the unpleasant tasks in the household (Blood and Wolfe 1960; Lundberg and Pollak 1996). This perspective was developed to explain the division of housework, and decisions on the division of this kind of work are most likely not taken only through explicit negotiations but also through implicit negotiations and gradual adaptation. In practice, partners probably do not explicitly state that they should do less housework because they earn more money. Rather, it is likely that the partner that earns less feels that he or she cannot make demands or start a fight because they have more to lose than their partner has. In the extreme case of a break-up, the partner with a lower wage, who has been dependent on the other partner for their economic standard, will suffer more economically than the partner with more resources. Alternatively, the partner with fewer resources may wish to contribute to the family's wellbeing in other ways than through his or her relatively few economic resources.

Care leave, however, does actually constitute a rather clear case of explicit negotiation. First, because the decision often has to be made quickly, and second, because the leave cannot be postponed in the way that housework often can. Apart from cooking and serving food, most household chores can be postponed at least slightly if needed. One question posed in this study is whether the partners' relative economic resources come into play in the decision on the division of care leave. For example, a parent who earns less than his or her partner may be more likely to take leave because he or she feels that their working time is less valuable than their partner's. It then becomes hard for them to argue, in a situation of explicit negotiation, that the betterpaid partner should stay at home.

Empirical studies on the division of housework, for which the relative resources perspective was developed, tend to support this theoretical approach (Bianchi et al. 2000; Bittman et al. 2003; Brines 1994; Evertsson and Nermo 2004; Greenstein 2000; Kan 2008), although the results for Sweden are less conclusive (Evertsson and Nermo 2007). Women and men spend less time on housework and perform a smaller share of the housework done in their household the less economically dependent they are on their partner. Studies on the importance of relative resources for the division of parental leave also support the relative resources perspective in most cases. For example, Norwegian (Naz 2010) and German (Parys and Schwerhoff 2010) fathers used more days of parental leave the less they earned compared to their partner. Similar results have been found with regard to the relative level of education (Geisler and Kreyenfeld 2011; Naz 2010).

One of two existing studies on the division of care leave in Sweden was conducted by Amilon (2007). She studied women's share of this leave focusing on relative resources, using a model designed to capture the trade-off between market work and care leave. She tested whether an improvement in a woman's bargaining position in a couple moved the distribution of care leave in the direction of more sharing, and found that this was the case. Compared to women in couples with equal resources, women used a smaller share of the care leave over a year if they had a higher annual income or higher level of education than their male partner, and a larger share if their resources were instead smaller than their partner's. Amilon also found that women's share was smaller if they themselves or both spouses had an income above the income ceiling in the insurance. She proposed that if the income ceiling were raised, sharing would increase in the couples where the woman's income was already below the ceiling and the man's was moved below, but decrease in others where only the woman's income would be moved below the ceiling.

A few years later, Eriksson (2011) was able to test the importance of the income ceiling by way of a natural experiment, as the income ceiling was substantially raised in June 2006 (and then lowered again in January 2007). Eriksson's study puts the main focus on the importance of relative income as such, and not on relative income as a proxy for bargaining power. Looking first at the effect of the income cap per se, she found that in couples where only one income was above the ceiling, the partner with the higher income consistently took less care leave compared with the other partner and compared with partners of the same sex in couples with incomes below the ceiling. This meant that in couples where only the woman's income was above the ceiling, men took more care leave than women. This suggests that relative income is central to understanding the division of this leave. This is further confirmed by the finding that men took fewer days and a smaller share of care leave in couples where only the man's income was above the ceiling compared with couples where both partners' incomes were above the ceiling. Somewhat surprisingly then, Eriksson did not find the expected effect of the increase in the income ceiling on the division of care leave. The number of care leave days used by men did not increase when their level of income moved from above to below the ceiling, nor did their number of days decrease when the level of income of women was moved below the ceiling. One explanation for this lack of impact that Eriksson put forward was that it might be caused by the ceiling acting as an arbitrary measure of income differences in the couple, differences that did not change substantially between the time periods.

In summary, the results of previous studies on care leave in Sweden suggest that the uptake and division of this leave are related to relative economic resources. The reason may be that relative economic resources are related to bargaining power. This interpretation is supported by the fact that relative education was also found to be related to care leave, controlling for relative income (Amilon 2007). The lack of effect of changes in parents' income losses brought about by the increase of the income cap also questions the notion that strict financial calculations lie behind the division of leave between parents.

The present study explicitly tests the association between relative economic resources and division of care leave by using a well-established measure of economic dependence (Sørensen and McLanahan 1987, see also, e.g., Bittman et al. 2003; Brines

1994; Evertsson and Nermo 2004; 2007; Kan 2008). Economic dependence measures the difference between a man's and a woman's income in relative terms and is hence independent of the absolute levels of the partners' incomes (for details, see the description of variables below). A couple with high incomes may have the same relative distribution of economic resources as a couple with low incomes but a larger income difference in absolute terms. If the man in the high-income couple earns above the income ceiling, the couple may divide care leave less equally than the low-income couple because of the higher household income loss caused by his leave (and not because of differences in the partners' bargaining power). If this is the case, this will influence the relationship between a measure of absolute income differences and care leave, but not the relationship between a measure of economic dependence and care leave. This study therefore comes closer than previous studies to measuring bargaining power gained through a strong economic position.

Notably, interpreting the relationship between women's economic dependence and the division of care leave as an indication of women's bargaining power assumes not only that economic dependence reflects bargaining power, but also that women use their bargaining power to maximize the more equal distribution of care leave. If they do not, the relationship between their economic dependence and the sharing of care leave would reflect something else. There are, to my knowledge, no representative studies on Swedish parents' or mothers' wish to share care leave, but a qualitative interview study of Swedish parents-to-be points at the importance of an equal division of care leave for parents who wish to practice shared parenthood (Alsarve, Boye and Roman forthcoming).

4 Work characteristics and occupations

It is likely that the decision regarding who is going to stay at home with a sick child is largely based on the parents' situation at work such as scheduled meetings or business trips, the need to call in a replacement and how much trouble each parent feels that an unscheduled absence may cause at their work place (Eek and Axmon 2011). Differences in employment protection between firms may also be of significance. Olsson (2013) found that a relaxation of employment protection in firms with ten or fewer employees in 2001 had a negative effect on the uptake of care leave among employees in these firms.

Work characteristics that are of importance to the uptake of care leave may vary with income and gender. On the one hand, it is possible to argue that men, who earn the higher income in most couples, may have a work situation that is more difficult to combine with care leave. Better-paid jobs are more likely than lower-paid jobs to involve work characteristics that are hard to combine with family responsibilities. For example, the frequency of business travel increases with income and level of education (Gustafson 2006). Fathers in Sweden are significantly more likely than mothers to have time-consuming work such as supervisory positions and positions involving business trips and high demands regarding availability (Bygren and Gähler 2012; Gustafson 2006; Magnusson 2010).

On the other hand, men, but not women, with a higher income than their partner have been shown to increase their uptake of care leave when their partners' employment protection is weakened (Olsson 2013). This suggests that highly paid men are able to adjust their leave taking behaviour and thus that their job tends to be compatible with care leave. Female dominated lower-paid jobs, for example in the public sector, may be difficult to combine with care leave. Work schedules in education and healthcare are likely to be difficult to change, particularly with short notice, it may be hard to find a replacement and children, the elderly and the sick may suffer if an employee is absent. The trouble caused for colleagues may also be huge (c.f. Eek and Axmon 2011). Although female dominated low-paid jobs have been called mother-friendly, their mother-friendliness has been questioned. According to the theoretical argument of compensating differentials, women tend to prefer jobs with higher non-pecuniary rewards that are easily combined with a strong family responsibility, such as flexible hours, but that offer smaller pecuniary rewards. Empirical support for this is, however, scarce (England 2005). Studying data from the US, Glass and Camarigg (1992) found no differences in the level of flexibility and ease of work – factors that were associated with few work-family conflicts - between women and men or between mothers and childless women. Nor did they find that female dominated jobs were more flexible and easy than male dominated jobs, rather the opposite. Wright et al. (1995) found that women in Sweden (and several other countries) did not abstain from taking supervisory positions due to family responsibilities to any greater extent than men. To complicate matters further, flexibility in the timing of work may not increase the use of care leave, but may rather make it easier to care for a sick child without using formal leave.

The differences between women's and men's jobs and between well-paid and lowpaid jobs do not present any clear suggestions as to which kind of work would offer the greatest possibilities for the use of care leave. What they do suggest is that it is important to take differences between the parents' work characteristics into account when studying care leave. Unfortunately, data with information on the uptake of care leave as well as work characteristics are lacking. The data used in the present study, however, include information on both parents' occupations at a rather detailed level. If the parents have the same occupation, their work characteristics should not differ as much as if they have different occupations. Thus, this study tests whether couples, where the partners work in the same occupation, divide care leave more equally than couples, where the partners work in different occupations. It also analyses whether a link between working in the same occupation and the division of care leave can be attributed to women being less economically dependent in these couples.

5 Data and method

5.1 Sample

The data used are included in a collection of Swedish population registers and made available by Statistics Sweden. Individuals are identified through an anonymous personal identifier and access to data is strictly regulated. The project has been ethically approved by a regional ethical board. The main registers used in this study are tax income registers and social insurance registers. Whereas the social insurance registers cover the entire Swedish population under the age of 76, the tax income registers cover the entire part of this population that works in the public sector or in major private firms. Employees in private firms with fewer than 500 employees are sampled each year using a stratified random sampling method. This means that about 5 per cent of all private companies and 50 per cent of all those employed in the private sector are included in the data. As the present study follows the same individuals over a number of years, this random sampling introduces an underrepresentation of employees in smaller private firms.

The registers include yearly information with 2007 as the last time observation. Married couples and couples who are cohabiting and have at least one child together can be linked to each other and followed over time. The sample used in the present study comprises married or cohabiting couples who had their first biological child sometime during 1999-2002, who stayed together for at least five years after the birth of their child and who were both employed in November of each year, 2-5 years after the birth of the first child.

Care leave is measured during years 2-5 after the birth of the first child and the sample includes couples who have used at least one day of care leave during this period (this excludes 840 couples, or 3.16 per cent of the cohabiting/married couples with children born between 1999 and 2002, who did not use any care leave during this period). Care leave can only be used on a day of paid work or if the parent is receiving unemployment benefit. If one parent is not eligible for care leave, the underlying assumptions of the theories do not hold. There is, for example, no need to bargain over the division of (formal) leave. If a parent has been granted a period of social insurance benefits (sickness benefit, study allowance, care allowance, early retirement or old age pension) in any of the four years in which care leave is measured, this year is excluded for that particular couple. Regarding sickness, note that only periods longer than two weeks result in exclusion. Employers pay the first two weeks of sickness absence and this absence is not registered in the data. This procedure excludes women and men in couples where one partner has been granted social insurance benefits every year in the four-year period. This applies to 8 per cent of the relevant couples (i.e. stable employed couples with children born between 1999 and 2002). Unemployment benefits are not counted among these social insurance benefits as they do not disqualify parents from using care leave, but a dummy for unemployment benefits is included. Parental leave is not included among the social insurance benefits either because if one parent is on parental leave, there will in most cases be no need for either of the parents to take care leave. In addition, excluding couples who have used parental leave during the period when their first child is 2-5 years old would bias the sample towards parents who have only one child or who have their second child more than five years after the first, which applies to a minority of the parents in the data. The father's number of parental leave days is, however, included as a control variable (more on this in the description of variables below). After couples where information on one or several variables is lacking have been excluded, the sample consists of 22 462 couples. Some analyses, described further in the next section, are run on a subsample of 10 933 couples with information for at least two of the four years after the birth of the first child, years 2-5.

5.2 Method

Two main analyses are carried out: One analysis of the relationship between economic dependence and men's share of care leave, and one of the relationship between working in the same occupation and men's share of care leave. The analysis of economic dependence is run with two different methods – one OLS regression where economic dependence is measured the year before parenthood, and one household fixed effects regression (FE regression, with an accompanying OLS regression, see further below). The analysis of the same occupation couples is run only with FE regression (and accompanying OLS regression). Because occupation is used as a proxy for work characteristics that are likely to have an immediate effect on the possibility to use care leave, an analysis of occupation before parenthood is not very informative.

In the OLS regression of economic dependence before parenthood, men's share of the total care leave used by a household during years 2-5 after the birth of the first child is regressed on variables measured the year before the birth of the child (with some exceptions, see the description of variables below). The equation is:

$$totalshare_h = a + b_1 ecdep_h + b_2 controls_h + D_t + \varepsilon_h$$

where $ecdep_h$ measures economic dependence in household h the year before the birth of the child, $totalshare_h$ measures a father's share of the total care leave taken over the four-year period, years 2-5 after the birth of the first child, $controls_h$ is a vector of control variables, where most controls are measured the year before the child was born, but some are measured in years 2-5 after the child's birth (see the description of variables below), and finally, D_t is a set of dummy variables indicating the birth year of the first child (1999-2002).

This OLS regression minimizes the risk of reversed causality, but a number of unmeasured characteristics could influence the results. Household fixed effects regression (FE) controls for unmeasured, time constant heterogeneity, i.e. for unmeasured household characteristics that stay the same during the entire period studied and that may influence parents' use of care leave along with economic dependence or partners working in the same occupation. An example of such a characteristic that may be important is gender ideology. This control for unmeasured, stable characteristics is accomplished through estimates that are based on variation within households, not differences between households. All terms in the equation are the difference between a household's year-specific value years 2-5 and the household's average value during the entire period years 2-5. The constant part of the error term is thereby eliminated.³ The equations are:

$$share_{ht} - share_h = b_{1h} (ecdep_{ht} - ecdep_h) + b_{2h} (controls_{ht} - controls_h) + (\varepsilon_{ht} - \hat{\varepsilon}_h)$$

share_{ht} - share_h =
$$b_{1h}(same_{ht} - same_{h}) + b_{2h}(controls_{ht} - controls_{h}) + (\varepsilon_{ht} - \hat{\varepsilon}_{h})$$

where $ecdep_{ht}$ measures economic dependence in household h in year t (2-5) after the birth of the first child, $ecdep_h$ measures the average economic dependence in household h over the period years 2-5, $same_{ht}$ indicates whether or not the parents in household h work in the same occupation in year t, $same_h$ measures the average value on the variable measuring whether or not the parents in household h work in the same occupation over the period years 2-5, $share_{ht}$ measures the man's share of care leave taken in household h in year t, $share_h$ measures the man's average share of care leave taken in household h during the period years 2-5, $controls_{ht}$ is a vector of control variables measured for each household h in year t and $controls_h$ is the average of each of these variables measured for each household h during the period years 2-5.

The unit of analysis in the FE regression is household years, i.e. each case represents a household in one year during the four-year period between years 2 and 5 after the birth of the first child. The cases can hence not be expected to be independent and robust standard errors are therefore used. The sample analysed consists of couples with information in at least two of the four years studied (years 2-5). To see the influence of time constant heterogeneity, the FE estimates should be compared with an identical model that does not control for this. An OLS regression is therefore run on the same

³ The analyses are run with Stata's command xtreg with household years as the unit of analysis.

sample as the FE analysis. That is, men's share of care leave each year is regressed on economic dependence/same occupation each year using the sample of household years and with robust standard errors. With this method, the estimates are based on differences between households.

One drawback with FE regression is that the estimates are only based on results from individuals who experience changes in the variable analysed. This group may be qualitatively different from the group who does not experience change. Caution is also warranted regarding the underlying assumptions in an FE regression. A causal interpretation of the results of the FE analysis demands that all unmeasured characteristics of importance for the division of care leave are assumed to be time constant, that is, that they do not change during the period studied. For example, gender ideology can only be ruled out as an alternative explanation if it is assumed that the gender ideology of the parents does not change during the years with small children. This is a somewhat strong assumption, particularly as the birth of the first child is a lifechanging event. A third drawback with the FE regression is that it does not model the causal direction of relationships. Hence associations between labour market factors and care leave may reflect adverse effects of care leave on labour market outcomes. The results of the analyses presented here are interpreted with these drawbacks in mind. The FE analysis is assumed to control for a range of important, time constant characteristics, but other, changing characteristics may be partly responsible for the relationship found between economic dependence, occupation and the division of care leave. The FE analysis is not assumed to show the causal direction of the associations. For economic dependence, causality is better modelled in the OLS regression of economic dependence before parenthood.

5.3 The dependent variable

The dependent variable is the man's share of a couple's care leave. In the OLS regression of economic dependence before parenthood, the dependent variable is the man's share of the leave used in a household during this entire period, years 2-5 after the birth of the first child. A period of several years is favoured over using a single year for two reasons. First, parents usually use quite few days of care leave each year. As can be seen in Table 1, women in the largest group, those with a different occupation to their partner, have on average used a total sum of 20 days during the four years studied,

i.e. five days/year, and fathers have used on average three days/year. Second, men's share of the leave differs quite substantially between the years. For example, men in the sample studied took on average 34 per cent of the leave taken in their household in the year that the first child turned two and 39 per cent in the year the child turned three. Care leave is therefore studied over a period of four years when the child is 2-5 years old. In the FE analyses, men's share of care leave is measured each year (this is also the case in the OLS that accompanies the FE).

Parents can take care leave for a part of the day and the measure used here captures net days, i.e. two half days are counted as one full day and so on. In the data, care leave cannot be separated from the ten so called 'daddy days' that fathers can take right after the birth of a child. This inflates the fathers' number of leave days in the years when siblings to the first child are born. When care leave is added up over the period studied, the years when siblings are born are excluded for both women and men. Hence care leave use for both men and women is underestimated. This is, however, preferred to the one-sided overestimation of men's leave that would otherwise have been introduced. The FE analyses exclude household years when siblings are born.

5.4 Independent variables

A measure of economic dependence was introduced by Sørensen and McLanahan (1987). The measure used here is an adaptation measuring the woman's economic dependence, which is commonly used in the literature on relative resources and the division of housework (e.g., Bittman et al. 2003; Brines 1994; Evertsson and Nermo 2004; 2007; Kan 2008). The man's wage is subtracted from the woman's wage and the result is divided with the sum of the woman's and the man's wages:

$$economic \ dependence = \frac{w \ wage - m \ wage}{w \ wage + m \ wage}$$

A value of -1 means that the woman does not have an income of her own and hence is fully provided for by the man, and correspondingly, a value of 1 means that the man is fully provided for by the woman. The value 0 means that the partners have the exact same income. The full-time equivalent monthly wage is used in the calculation. In this measure, the monthly wage of part-time working women and men has been recalculated to reflect a full-time monthly wage. An alternative to this would be to use annual income and a control for working hours. This control is important as parents with short working hours have a low income and high economic dependence, and may be less prone than others to use care leave. As the data do not include information on working hours, the full-time equivalent monthly wage is used here as a way of taking working hours into account.

The measure of economic dependence assumes that incomes are pooled in couples and equally shared between the partners and shows how large a fraction of his or her half the dependent partner derives from the partner with the higher income. Despite the fact that it is problematic to assume that couples' pool their incomes, the measure is the best there is given the lack of information on whether and how each couple divides their income between them. The analysis of economic dependence before parenthood measures dependence the year before the birth of the first child. The FE analyses measures economic dependence yearly.

The measure of economic dependence controls for the levels of the partners' wages, i.e. the measure does not differ between couples merely because of differences in the absolute levels of the woman's and the man's wages as long as the relation between the partners' wages is the same. A control for the level of a man's own wage is, however, needed as his wage influences the likelihood that he earns more or less than his partner, and may also influence his use of care leave. All analyses therefore control for the man's full-time equivalent monthly wage. The analysis of economic dependence before parenthood controls for the man's wage the year before the birth of the first child and the FE analyses control for wage each year during the period studied. Wage is adjusted to the 2011 monetary value and measured in 1000 SEK.

Occupations are categorized according to the Swedish Standard Classification of Occupations (SSYK 96), which is based on the International Standard Classification of Occupations (ISCO-88). The classification groups occupations into ten main occupational groups and each group has a number of subgroups, which in turn include additional levels. SSYK is available at a three-digit level in the data. Each main occupational group includes 1-4 subgroups and each of these in turn includes 1-9 subgroups. For example, the main group '5 Service workers and shop sales workers' is divided into the two larger subgroups '51 Personal and protective services workers' and '52 Models, salespersons and demonstrators'. The former distinguishes in turn between the five subgroups '511 Travel attendants and related workers', '512 Housekeeping and restaurant services workers', '513 Personal care and related workers', '514 Other personal services workers' and '515 Protective services workers'. In the present study, the woman and the man in a couple are categorized as having the same occupation if they have the same three-digit occupational code, for example, if they are both protective services workers. Occupation is measured annually.

Several control variables are included that in previous studies have been shown to be related to the uptake and division of care leave within Swedish couples (Amilon 2007; Eriksson 2011). Amilon (2007) showed that the likelihood of sharing care leave was higher if the woman had a higher level of education than the man, and smaller if the man had a higher level of education than the woman. In the present study, educational resources are indicated using a variable showing whether the woman, the man, both or neither have a higher education. The measure hence indicates both the absolute and the relative level of the partners' level of education. Education is classified according to the Swedish standard classification of highest educational attainment (SUN). Higher education is defined as at least two years of post-upper secondary education (SUN>500). In the analysis of economic dependence before parenthood, education is measured the year before the birth of the first child. In the FE analyses education is measured annually.

Which sector the parents work in is related to the division of care leave (Amilon 2007). The sector is captured here using a variable indicating whether the woman works in the public sector and the man in the private sector, the man in the public and the woman in the private sector, both in the public or both in the private sector. The reference category is the group of couples where both work in the private sector, which is the largest group. The sector is measured in year 5 in the analysis of economic dependence before parenthood and yearly in the FE. The sector is hence measured in the period after the birth of the first child, and not the year before as some of the other control variables. This is because the sector is likely to have an immediate impact on care leave, rather than having a lasting effect in the way that resources are expected to have. The analysis of economic dependence before parenthood has, however, also been

run with the sector measured the year before the birth of the child, as well as during years 2-4, which rendered the same results as those presented here.

The results of previous studies indicate that the sharing of care leave decreases with the age of the woman (Amilon 2007; Eriksson 2001) and the age of the woman at the birth of the first child is therefore included in the analysis of economic dependence before parenthood (it cannot per definition be included in the FE as it does not change over time). The man's age is not included as it is highly correlated with the woman's.

The more small children there are in the household, the greater is the likelihood that care leave is shared (Amilon 2007; Eriksson 2001). The number of children aged 0-6 in the household is included to take into account any siblings born during the period studied. An alternative would be to control for the age of the youngest child. The number of children is, however, more strongly correlated with the father's share of the care leave, and both child variables cannot be included simultaneously due to collinearity in this sample of families with only young children. The analysis of economic dependence before parenthood includes the number of small children in the household in year five and the FE analyses include the number of children each year of the period studied.

Eriksson (2011) showed that the relationship between the partners' incomes and the income ceiling in the insurance is of importance to the sharing of care leave. The relationship with the income ceiling is captured using a variable indicating whether the annual income of the woman alone, the man alone, both or neither exceeds the ceiling. Couples where neither income exceeds the ceiling is the largest category and used as reference. The relationship with the income ceiling is measured the year before the birth of the first child in the analysis of economic dependence before parenthood and annually in the FE analyses.

All the models also include a control for the man's number of days of parental leave, which has been shown to correlate with care leave in an earlier study (Eriksson 2011). The woman's parental leave is not included due to high collinearity between this variable and the number of children. Furthermore, the man's share of care leave is more highly correlated with the man's parental leave than with the woman's. The analysis of economic dependence before parenthood includes the man's total number of parental leave days used during years 2-5 and the FE analyses include an annual measure.

Included in all the models is also a control for whether the woman or the man, respectively, has been granted unemployment benefits at any time in the period when care leave is measured (during the period years 2-5 in the analysis of economic dependence before parenthood and annually in the FE analyses). This measure is included as unemployed parents are likely to use less care leave than employed parents. One partners' unemployment may also influence the other partner's leave use.

A father's share of care leave tends to vary with a household's total amount of care leave days (Amilon 2007, see also Eriksson 2011). Therefore, the household's total number of care leave days is included in all regression models (the total over years 2-5 in the analysis of economic dependence before parenthood and the annual number of days in the FE analyses).

The analysis of economic dependence before parenthood and the OLS regression that works as a reference point for the FE regression include a control for the year of birth of the first child (1999-2002). The FE includes a control for which of years 2-5 each household year represents.

One descriptive analysis includes social class, which is measured according to the European Socio-economic Classification (ESeC). This classification categorizes employed individuals into seven classes, from higher professional occupations to routine occupations (for all seven classes, see Figure 4).

6 Results

6.1 The basic relationship between care leave, wage and economic dependence

Table 1 shows descriptive statistics for couples in which the woman and man did not have the same occupation and couples in which they did have the same occupation over the entire period, years 2-5. Differences between the two groups and whether or not they are significant are shown in the last two columns. The couples with different occupations make up the large majority of the total sample and hence the statistics for them resemble to a great extent the statistics for the sample as a whole, which is therefore not reported.

The big picture conveyed by Table 1 is that partners working in the same occupation had somewhat more equal resources and divided care more equally than partners in different occupations. Men in couples working in different occupations used 36 per cent of the leave used during years 2-5 after the birth of the first child, whereas men in couples with the same occupation used 39 per cent. The number of care leave days used by men does not differ between the two groups of couples so the difference in division of leave is due to women with the same occupation as their partner using less leave than other women. Thus the fact that couples working in the same occupation share care leave more equally is not caused by a reallocation of days between the parents, compared to couples working in different occupations, but instead by differences in the behaviour of the women. Women in couples working in the same occupation earned a higher wage before the birth of the first child than other women but men in these couples did not earn more than other men. The lower economic dependence in the couples working in the same occupation is hence, again, caused by differences among women. It was more common in the couples working in the same occupation that the income of both partners was either below or above the income cap in the insurance scheme and less common that only the woman's or the man's income exceeded the cap. It was more common in this group of couples that both of the partners had a higher education, and less common that only one or neither of them had this level of education. It is hardly surprising that partners working in the same occupation also worked in the same sector to a greater extent than other couples. The difference is particularly noticeable for the public sector and about half of the couples working in the same occupation worked in this sector. Men's total uptake of parental leave during years 2-5 was considerably greater in the couples where the partners had the same occupation than in other couples. Women in a couple where both worked within the same occupation used less parental leave than other women and the division of parental leave was therefore more equal in these couples (the latter is not shown in Table 1).

Table 1 Descriptive statistics for couples where the woman and the man work in different occupations and couples where they work in the same occupation a

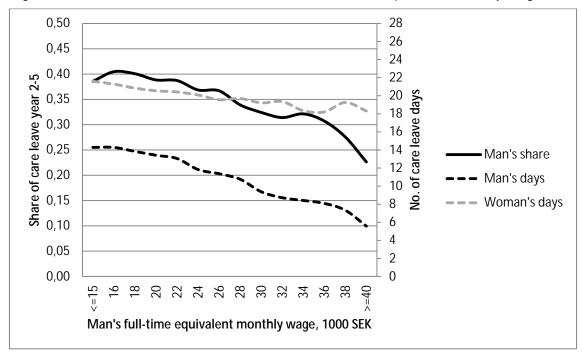
	Different occupations (n=20 504)			Same occupation (n=1 958)			Difference (same-diff. occ.)	
Variable	Freq.	Mean/per cent	Std.d.	Freq.	Mean/per cent	Std.d.		,
C. leave share, man		0.36	(0.280)		0.39	(0.268)	0.03	***
C. leave days, man		11.64	(12.958)		11.91	(12.272)	0.27	
C. leave days, woman		20.22	(18.500)		18.04	(17.144)	-2.19	***
C. leave days, household		31.86	(25.386)		29.94	(24.804)	-1.92	***
Wage, 1000 SEK, man ^b		26.34	(9.404)		26.10	(9.170)	-0.23	
Wage, 1000 SEK, wom. ^b		22.14	(6.319)		24.04	(7.009)	1.90	***
Economic dependence ^b		-0.08	(0.133)		-0.03	(0.096)	0.04	***
Relation to income ceiling: ^b								
Both inc. below	11716	57.14%		1202	61.39%		4.25	***
Only man's over	5920	28.87%		293	14.96%		-13.91	***
Only woman's over	829	4.04%		58	2.96%		-1.08	*
Both over	2039	9.94%		405	20.68%		10.74	***
Education: ^b								
No higher ed.	8293	40.45%		737	37.64%		-2.81	*
Only wom. high	4926	24.02%		117	5.98%		-18.04	***
Only man high	1752	8.54%		114	5.82%		-2.72	***
Both high	5533	26.98%		990	50.56%		23.58	***
Sector: ^c								
Both public	3690	18.00%		1040	53.12%		35.12	***
Only wom. public	8355	40.75%		93	4.75%		-36.00	***
Only man public	1392	6.79%		59	3.01%		-3.78	***
Both private	7067	34.47%		766	39.12%		4.65	***
No. of children ^c		1.85	(0.526)		1.86	(0.558)	0.01	
P. leave, man		77.38	(72.551)		98.50	(85.832)	21.12	***
P. leave, woman		272.98	(161.508)		258.05	(153.549)	-14.93	***
Age, man ^d		32.45	(5.112)		33.16	(5.777)	0.71	***
Age, woman ^d		30.30	(4.273)		30.70	(4.323)	0.40	***
Unempl. man	1736	8.47%		118	6.03%		-2.44	***
Unempl. woman 1 st child's birth:	3076	15.00%		179	9.14%		-5.86	***
1999	4282	20.88%		386	19.71%		-1.17	
2000	4721	23.02%		459	23.44%		0.42	
2000	5574	27.18%		497	25.38%		-1.80	
2002	5927	28.91%		497 616	25.38 <i>%</i> 31.46%		2.55	*

*** p<0.001, ** p<0.01, * p<0.05
^a Standard deviations in parentheses, significance tests for differences between the two groups of couples (same occ – different occ.). Total sample size: 22 462. Variables measured during years 2-5 after the birth of the first child where not otherwise stated.
^b The year before the birth of the first child.

^c Year five after the birth of the first child.

^d In the year of the birth of the first child.

Figure 1 a shows the basic relationship between men's wages and, respectively, men's share of care leave and women's and men's number of care leave days used during years 2-5 after the birth of the first child. Figure 1 b shows the same relationship with women's wages.





Men's share of care leave decreased with men's wages, which was entirely due to a decrease in their own uptake of care leave – women's uptake did not increase but rather decreased with men's wages (Figure 1 a). Correspondingly, men's share increased with women's wages because women's number of leave days decreased more than men's did as women's wages increased (Figure 1 b). Women's uptake was particularly great if they had low wages. Hence, the higher the wage, the fewer the care leave days, and this is true for women as well as for men. As may be expected from these graphs, additional analyses showed that the higher the household income, the less care leave the couple used in total (not shown). High-income earners may be able to use less leave for several reasons. For example, they may have flexible work that allows them to be at home with a sick child without using formal leave, or their children may be sick less often.

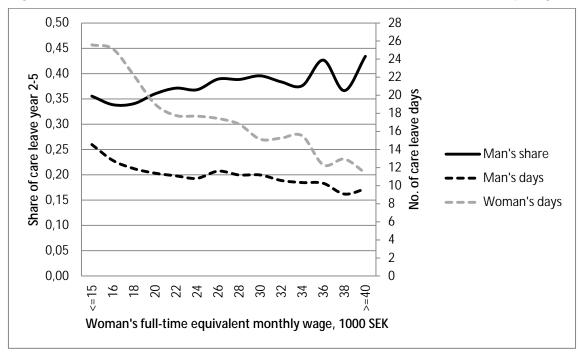


Figure 1 b: Care leave use in relation to a woman's full-time equivalent monthly wage

In Figure 2, the relationship between economic dependence and men's share of care leave is shown for the group with different occupations, and for the group with the same occupation. As only working women and men are included in the sample there are no fully economically dependent women or men. The number of people who are greatly dependent is also very limited. Therefore, Figure 2 excludes the tail end of economic dependence. The range of -0.6 to 0.3 is chosen as no one in the group of couples with the same occupation, the smaller of the two groups, has dependence values below or above this. However, there are very few couples in this group with dependence values below -0.3 or above 0.1, which leads to the great volatility among those with low dependency values. That said, it is obvious that men's share of care leave increased with women's decreasing economic dependence in both groups of couples, and the increase was the same for both groups. The relationship appears to be linear.

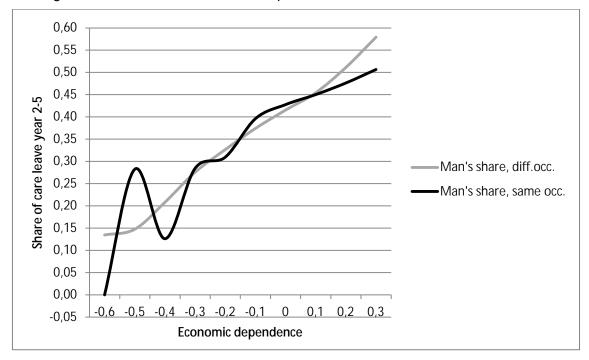


Figure 2: Man's share of care leave related to economic dependence in couples working in the same and in different occupations.^a

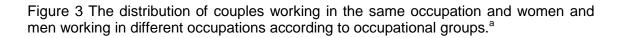
^a Economic dependence: Negative values = woman dependent, positive values = man dependent.

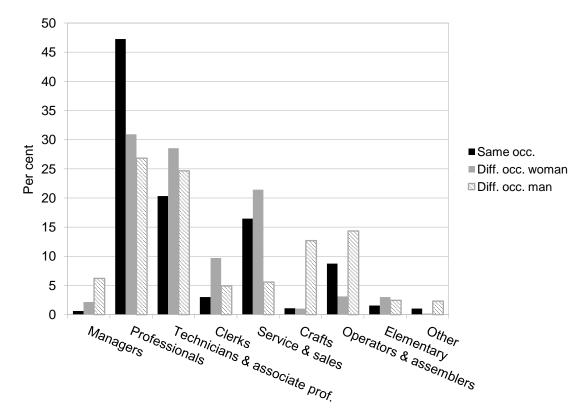
6.2 Who are the couples who work in the same occupation?

Figure 3 and Figure 4 give a picture of what kind of occupations the couples, where the partners both work in the same occupation, work in and how much they differ from other couples in terms of occupation and social class. Figure 3 shows the prevalence of the main occupational groups (at one-digit level SSYK) among these couples and among women and men in the couples working in different occupations. The most prominent difference between the two groups of parents is that the couples working in the same occupation tend to work in professional occupations to a higher degree than other women and men.⁴ These are occupations like, for example, medical doctors, accountants and teachers. Almost half of the couples working in the same occupation work in these occupations, compared to 27 per cent of the men and 31 per cent of the women in couples in which the partners do not have the same occupation. Men in the couples working in the same occupations to a higher degree than other men, while women in these couples work less in services and sales and more often as operators and assemblers compared to other women. Both women and men in the couples working in the same occupation are less often managers

⁴ Only statistically significant differences in Figures 3 and 4 are commented.

compared to other women and men. They also work less often in technical occupations, as clerks and in elementary occupations. Men with the same occupation as their partner are less often crafts workers.





^a Occupations categorized according to the Swedish Standard Classification of Occupations (SSYK 96) at one-digit level. The category "Other" includes armed forces and skilled agricultural and fishery workers, which include too few individuals to be presented separately.

Figure 4 shows the social class distribution of parents in the two groups of couples. On the one hand, women in the couple working in the same occupation are more likely than other women to have a higher professional position. On the other hand, they are also more likely to have a routine position. Women in a couple where both work in the same occupation are less likely than other women to have an intermediate or lower services position. Men in the same occupation group are more likely than other men to have a lower professional position and to be in lower services positions. They are less likely to be in an intermediate, lower technical or routine position.

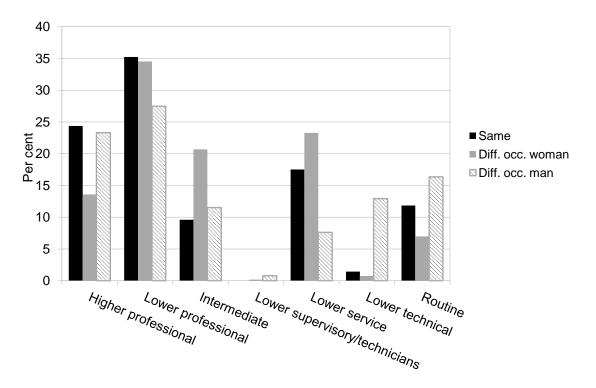


Figure 4 The distribution of couples working in the same occupation and women and men working in different occupations according to social class.^a

Together, Figure 3 and Figure 4 show that the couples where both work in the same occupation are to a large extent made up of professionals, although they are less often managers than other women and men. Particularly women are more often employed in high positions compared to other women. Women and men in these couples also appear to be employed in gender typical occupations less often.

6.3 Regressing care leave on economic dependence and same occupation

In the following section, men's share of care leave is regressed on women's economic dependence to assess whether the results correspond with the relative resources perspective. Model 1 of Table 2 shows the analysis of economic dependence before parenthood and the division of care leave during years 2-5 after the birth of the first child. Model 2 gives the results of the FE analysis of economic dependence and men's share of care leave as they develop over years 2-5 and model 3 the results of the corresponding OLS regression.

^a Categorisation based on the European Socio-economic Classification (ESeC).

	Model 1 OLS 1	Model 2 FE	Model 3 OLS 2
Economic dependence	0.3036***	0.2584***	0.5901***
	(0.0230)	(0.054)	(0.023)
Man's wage	-0.0015***	0.0006	0.0001
	(0.0003)	(0.000)	(0.000)
Rel. to income ceiling:	(/	()	()
Both inc. below	Ref.	Ref.	Ref.
Only man's over	-0.0372***	-0.0265***	-0.0751***
	(0.0050)	(0.007)	(0.005)
Only wom.'s over	0.0330**	0.0130	0.0398***
	(0.0100)	(0.015)	(0.010)
Both over	-0.0102	-0.0233	-0.0370***
Detti over	(0.0079)	(0.012)	(0.007)
Education:	(0.0010)	(0.012)	(0.007)
No higher education	Ref.	Ref.	Ref.
Only wom. higher		0.0296	0.0213***
Only worn. higher	0.0102*		
Only man higher	(0.0050)	(0.096)	(0.005) 0.0288***
Only man higher	-0.0171*	-0.0698	
Deth bish an	(0.0070)	(0.088)	(0.007)
Both higher	-0.0106*	-0.0814	0.0281***
	(0.0052)	(0.098)	(0.005)
Sector:			
Both private	Ref.	Ref.	Ref.
Only wom. public,	-0.0006	-0.0083	0.0150**
	(0.0045)	(0.025)	(0.005)
Only man public	-0.0104	-0.0073	-0.0466***
	(0.0078)	(0.034)	(0.008)
Both public	-0.0114*	0.0037	-0.0283***
	(0.0055)	(0.031)	(0.005)
Unemployed, woman	0.0409***	0.0219	0.0592***
	(0.0052)	(0.013)	(0.009)
Unemployed, man	-0.0173**	-0.1074***	-0.1176***
	(0.0065)	(0.019)	(0.015)
No. of children	-0.0003	0.0946***	0.0418***
	(0.0039)	(0.008)	(0.004)
Parental leave, man	0.0009***	-0.0002**	0.0005***
	(0.0000)	(0.000)	(0.000)
Total household care leave	-0.0001	-0.0022***	-0.0005**
	(0.0001)	(0.000)	(0.000)
Age, woman	0.0009		
-	(0.0005)		
Constant	0.3338***	0.3395***	0.3499***
	(0.0189)	(0.061)	(0.009)
Observations	22 462	27 684	27 684
R^2/R^2 within	0.1125	0.019	0.126
Number of households	-	10 933	-

Table 2 Men's share of care leave regressed on economic dependence^a

*** p<0.001, ** p<0.01, * p<0.05

^a OLS and FE, standard errors in parentheses (robust standard errors in Models 2 and 3).

Model 1: OLS-regression. The dependent variable is men's share of the household's total number of care leave days used during years 2-5 after the birth of the first child. The independent variables are measured the year before the birth of the first child with these exceptions: The sector and number of children are measured year 5 after the birth, unemployment indicates that the woman/man has been unemployed at some point during years 2-5, the man's parental leave is the total no. of days used in years 2-5. The birth year of the first child (1999-2002) is included but not shown in the table.

Model 2: Fixed effects regression. The dependent variable is men's share of the household's total number of care leave days annually throughout years 2-5 after the birth of the first child. The independent variables are measured annually. Economic dependence is multiplied by ten to facilitate interpretation. The number of years since the birth of the first child is included but not shown in the table.

Model 3: OLS regression. The dependent and shown independent variables as in Model 2. The birth year of the first child (1999-2002) is included but not shown in the table.

Table 2 provides compelling evidence that the division of care leave in Swedish couples is related to economic dependence. All models show a positive relationship - the stronger the woman's economic position in the couple, the greater the share of the care leave which is taken by the man. This is the case irrespective of whether economic dependence is measured before parenthood or during the years with small children, and irrespective of whether or not time constant heterogeneity is controlled for. Additional analyses, not shown here, confirm that the relationship is linear and hence the same when the man is economically dependent as when the woman is economically dependent (tested with a quadratic term for economic dependence and with economic dependence categorized). The difference in men's share of care leave between couples where the partners earn exactly the same income and couples where the woman or the man is fully economically dependent is 30 percentage points, as seen in model 1 of Table 2. Men's estimated share of care leave in a couple with equal economic resources, when the values of all the variables included apart from economic dependence are set to the average in the sample, is 38.6 per cent. In a couple with the sample average on economic dependence (-0.073), the man's estimated share of care leave is 36.4 per cent.

The control variables show that men tend to take a smaller share of care leave the more they earned before parenthood (model 1), but this relationship disappears in the FE analysis and in the accompanying OLS (models 2 and 3). There may be a lag in the possible effect of men's wage on their share of care leave so that no link appears when wage and care leave are measured simultaneously. A more stable result is the relationship between the division of care leave, on the one hand, and the relationship between the incomes of the partners and the income cap in the insurance on the other. Compared with couples where both incomes fall below the cap, men use a smaller share of the leave in couples where only the man's income exceeds the cap. These are the couples who are likely to lose the most financially from the man's leave. The more equal sharing of couples where only the woman's income exceeds the cap appears to be caused by unmeasured household characteristics as it is not present in the FE regression. That is, the economic loss from women's leave in these couples does not appear to affect their division of leave. The link with the level of education, sector and a woman's unemployment also appear to be caused by time constant heterogeneity as they are present in the OLS regressions (models 1 and/or 3) but not in the FE regression (model 2). An alternative explanation for the lack of a link with these factors in the FE regression is that only a small share of the sample experiences changes in these factors during the period studied.

The man's share of care leave is smaller if he has been unemployed. It is also smaller the more care leave the couple has taken in total, but greater the more children there are in the family. Men's parental leave shows an interesting link to care leave. The relationship is positive in the two OLS regressions (models 1 and 3) but negative in the FE regression (model 2). A possible explanation is that men who use a great deal of parental leave have unmeasured characteristics that tend to also increase their use of care leave. Controlling for these characteristics, the FE analysis reflects the fact that men who are on parental leave have no need to use care leave. Put differently, the group of men who are prone to use both care leave and parental leave are likely to have been on relatively long parental leave, with no need to use care leave, on one or several occasions during the period when their oldest child was 2-5 years old.

Table 3 shows the results of the analysis of the division of care leave among partners who work in the same occupation compared with partners who work in different occupations. Models 1 and 2 show the uncontrolled relationship between men's share of care leave and a dummy for being a couple where both partners work in the same occupation and models 3 and 4 show the relationship with economic dependence and control variables added (control variables are not shown in the table). As described above, the FE estimate for being in the same occupation is solely based on results for couples who experience a change in this status, that is, couples who go from being in different occupations to being in the same occupation or the other way around. This applies to 602 couples or 5.5 per cent of the sample. Without controls for economic dependence and the control variables, the OLS regression shows a positive relationship whereas the FE regression shows no relationship. The higher share of care leave taken by men with the same occupation as their partner thus appears to be caused by unmeasured characteristics common to couples with the same occupation, i.e. by selection, and not by their presumably similar work characteristics. When economic dependence and control variables are added, the relationship with the same occupation in the OLS regression disappears, and it is the control for economic dependence that causes the estimate to drop (additional analysis, not shown). If it were not for the results of the FE regression, this would suggest that the lower economic dependence of women in couples where both work in the same occupation is behind their more equal division of care leave. With the link between the same occupation and the share of care leave being insignificant already in the uncontrolled FE regression, however, this suggests that some unmeasured characteristics lead to a more equal sharing of care leave and perhaps partly also the relatively equal wages of women and men in these couples (the coefficient for economic dependence is smaller with FE regression than with OLS regression).

Table 3 Care leave regressed on whether or not the partners work in the same occupation ^a

	Model 1 FE	Model 2 OLS	Model 3 FE	Model 4 OLS
Same occupation	0.0182	0.0285***	0.0136	-0.0001
·	(0.012)	(0.005)	(0.012)	(0.005)
Economic dependence			0.2581***	0.5901***
·			(0.054)	(0.023)
Controls	No	No	` Yes ′	`Yes ´
Constant	0.3453***	0.3321***	0.3379***	0.3499***
	(0.005)	(0.004)	(0.061)	(0.009)
Observations	27 684	27 684	27 684	27 684
R^2/R^2 within	0.000	0.002	0.019	0.126
Number of households	10 933		10 933	

*** p<0.001, ** p<0.01, * p<0.05

^a OLS and FE, robust standard errors in parentheses.

Models 1 and 3: Fixed effects regression. The dependent variable is the man's share of the household's total number of care leave days each year, 2-5 after the birth of the first child. The control variables in Model 3: The man's wage, rel. of the woman's and the man's income compared to the income ceiling, the couple's level of education, man/woman unemployed, no. of children, the man's parental leave and the household total care leave, all measured each year, 2-5. The number of years since the birth of the first child is also controlled for.

Models 2 and 4: OLS regression. The dependent variable as in models 1 and 3. The control variables in model 4: The man's wage, rel. of the woman's and the man's income compared to income ceiling, the couple's level of education, man/woman unemployed, no. of children, the man's parental leave, the household total care leave, all measured each year, 2-5. The birth year of the first child is also controlled for.

One possible such characteristic is gender egalitarianism – couples with the same occupation tend perhaps to have more gender egalitarian ideals than others. Another possible explanation has to do with the specific occupations that the couples who work within the same occupation work in. It is possible that women in these couples work in occupations that offer relatively many possibilities in terms of wages and career opportunities and that these women are more work-oriented or put more effort into their work compared to women in couples with different occupations. They may also be better able than other women to stay at home without using formal leave, for example, by working from home or working evenings and weekends to make up for lost working time. The descriptive statistics in Table 1, Figure 3 and Figure 4 indicate that this may

be the case. They show that women in couples where both have the same occupation had higher wages and worked more often in professional occupations and occupations with a high social position than women in couples where the spouses had different occupations. Women in couples where both had the same occupation also used less care leave and parental leave than other women. Furthermore, sex-integrated occupations are likely to be overrepresented in this group and these occupations (Magnusson 2009; 2013). Hence, the reason for the more equal sharing of care leave of couples who have the same occupation may indeed be their occupations, but not because the woman and man have the same work characteristics but rather because of the specific types of occupations that they work in.

7 Summary and conclusions

Men in Sweden use a larger share of care leave for sick children compared to other parental leave, but women still use almost two thirds of the care leave (Statistics Sweden 2012). This study aims to move one step closer to explaining this skewed division of care leave by analysing the relationship between economic dependence and the division of care leave, and the division of leave in couples where the partners work in the same occupation and therefore presumably have more equal work characteristics than couples where the partners work in different occupations.

The decision as to which one of the parents will stay at home from work when a child suddenly falls ill poses a rather clear case of explicit negotiation. A relevant theoretical perspective to test is therefore the relative resources perspective, which implies that the partners' relative resources influence their bargaining power in negotiations over, for example, the division of domestic work (Blood and Wolfe 1960; Lundberg and Pollak 1996). The results of studies on relative resources and the division of housework suggest that relative resources are relevant to the division of housework in several countries (Bianchi et al. 2000; Bittman et al. 2003; Brines 1994; Evertsson and Nermo 2004; Greenstein 2000; Kan 2008). The present study tests whether relative resources are of significance for the division of care leave, using the measure of women's economic dependence that is commonly used in studies on relative resources

and the division of housework, but which has not been used previously to analyse care leave.

A first conclusion to be drawn from the results is that women's economic dependence is related to the division of care leave and that the relationship is linear. This relationship remains with the control for the man's wage and for income losses related to the income ceiling in the insurance scheme. Hence, the less economically dependent the woman is, the greater the man's share of care leave. This also holds in couples where the woman earns more than the man, that is, the man's share of care leave also increases the more economically dependent he is on his partner. These results support the idea that economic dependence between partners come into play in decisions on the division of care leave. According to the theory of relative resources, this would mean that the partner with the highest wage, who is the least economically dependent on the other partner, is able to opt out of taking care leave relatively often, for example, because his or her working time is more highly valued by one or both partners (i.e. for other reasons than the direct economic impact of their care leave).

Apart from the economic considerations and bargaining power gained through a strong economic position in the couple, parents' work characteristics could be expected to be of great importance when they decide who will stay at home to care for a sick child. Therefore, couples where the partners have the same occupation are compared to couples where the partners have different occupations. Work characteristics are expected to be more similar in the former couples than in the latter. The results show that partners with the same occupation have more equal resources, resulting in less economic dependence between partners, and they share care leave more equally than other couples. Their relatively equal division of leave as well as their relatively equal wages, however, can be attributed to unmeasured, stable characteristics of their households. In other words, similarities in their work characteristics, measured by their occupation, do not seem to be the underlying cause.

One possible characteristic that may lie behind the more equal sharing in couples where both work in the same occupation is their gender ideology. A relatively large share of these couples may strive to live gender equal lives, including sharing care leave and parental leave more equally and promoting both partners' paid employment or career. Another possible explanation is that women in couples where both have the same occupation tend to have jobs that offer more possibilities in terms of wages and career opportunities than the jobs of other women. These possibilities may be the reason why these women use less care leave than other women and they may also partly explain these women's lower economic dependence. These women may be less willing to sacrifice their work to stay at home or they may have greater possibilities than other women to stay at home without using formal leave. Hence, this explanation suggests that occupational characteristics are the cause behind the more equal sharing of care leave, but not the similarities in the partners' work characteristics but rather the specific characteristics of the occupations that the couples with the same occupation tend to work in. The results particularly speak to the importance of women's work for the sharing of childcare.

Although the register data used in the present study are rich in information for a large number of individuals, they lack some central variables of which the most important ones are work characteristics and working hours. Differences in work characteristics between the partners, such as flexibility, the need to call in a replacement, the trouble caused at work by absence, frequency of meetings etc. may not be fully covered by the measure of occupation that is used here. Furthermore, this study cannot fully take into account the fact that the use of care leave may differ depending on working hours. A suggestion for future research would therefore be to run similar analyses as those presented here with control for working hours. With a dataset with information on care leave as well as work characteristics, a direct analysis of the importance of differences in work characteristics between partners would also be highly informative, as would an analysis of the relationship between specific work characteristics and women's and men's uptake of care leave.

References

- Alsarve, J., Boye, K. and Roman, C. (forthcoming), "The child's best and constructions of motherhood and fatherhood: At the crossroads of biology and equality", in D. Grunow & M. Evertsson (eds.), From Modern Couple to Traditional Family. Institutions as Reference Points for Parents-to-be in European Societies.
- Amilon, A. (2007), "On the sharing of temporary parental leave: The case of Sweden", Review of Economics of the Household, 5, 385-404.
- Bertrand, M., Pan, J. & Kamenica, E. (2013), "Gender identity and relative income within households", NBER Working Paper 19023.
- Bianchi, S.M., Milkie, M.A., Sayer, L.C. and Robinson, J.P. (2000), "Is anyone doing the housework? Trends in the gender division of household labor", Social Forces, 79, 191-228.
- Bittman, M., England, P., Sayer, L., Folbre, N. and Matheson, G. (2003), "When does gender trump money? bargaining and time in household work", American Journal of Sociology, 109, 186-214.
- Blood, R.O. and Wolfe, D.M. (1960), Husbands and wives: The dynamics of married living, The Free Press, Glencoe.
- Boschini, A., Håkanson, C., Rosén, Å. & Sjögren A. (2011), "Trading off or having it all? Completed fertility and mid-career earnings of Swedish men and women", IFAU Working Paper 2011:15.
- Boye, K., Halldén, K. and Magnusson, C. (2014), "Könslönegapets utveckling: Betydelsen av yrkets kvalifikationsnivå och familjeansvar", in M. Evertsson & C. Magnusson (eds.), Ojämlikhetens dimensioner. Uppväxtvillkor, arbete och hälsa i Sverige. Stockholm: Liber.
- Brines, J. (1994), "Economic dependency, gender, and the division of labor at home", The American Journal of Sociology, 100, 652-688.
- Bygren, M. and Duvander, A.Z. (2006). "Parents' workplace situation and fathers' parental leave use", Journal of Marriage and Family, 68, 363-372.

- Bygren, M. and Gähler, M. (2012), "Family formation and men's and women's attainment of workplace authority", Social Forces, 90, 795-816.
- Eek, F. and Axmon, A. (2011), "Yrkesarbetande småbarnsföräldrar arbetsförhållanden, arbetsplatsklimat och ansvarsfördelning i hemmet", Report no. 13/2011, Occupational and Environmental Medicin, Lund University.
- England, P. (2005), "Gender inequality in labor markets: The role of motherhood and segregation", Social Politics: International Studies in Gender, State & Society, 12, 264-288.
- Engström, P., Hesselius, P. and Persson, M. (2006), "Överutnyttjande i tillfällig föräldrapenning för vård av barn", IFAU Rapport 2006:9.
- Eriksson, H. (2011). "The gendering effects of Sweden's gender-neutral care leave policy", Population Review, 50, 156-169.
- Evertsson, M. and Nermo, M. (2004), "Dependence within families and the division of labor: Comparing Sweden and the United States", Journal of Marriage and Family, 66, 1272-1286.
- Evertsson, M. and Nermo, M. (2007), "Changing resources and the division of housework: A longitudinal study of Swedish couples", European Sociological Review, 23, 455-470.
- Evertsson, M., England, P., Reci,I., Hermsen, J., de Bruijn, J. and Cotter, D. (2009), "Is Gender Inequality Greater at Lower or Higher Educational Levels? Common Patterns in the Netherlands, Sweden and the U.S", Social Politics, 16, 210-241.
- Geisler, E. and Kreyenfeld, M. (2011), "Against all odds: Fathers' use of parental leave in Germany", Journal of European Social Policy, 21, 88-99.
- Glass, J. and Camarigg, V. (1992), "Gender, parenthood, and job-family compatibility", American Journal of Sociology, 98, 131-151.
- Government Bill (1973:47), Kungl. maj:Ts proposition nr 47 år 1973.
- 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.

- Gustafson, P. (2006), "Work-related travel, gender and family obligations", Work, Employment & Society, 20, 513-530.
- Haas, L., Allard, K. and Hwang, P. (2002), "The impact of organizational culture on men's use of parental leave in Sweden", Community, Work & Family, 5, 319-342.
- Kan, M.Y. (2008). "Does gender trump money? Housework hours of husbands and wives in Britain", Work, Employment & Society, 22, 45-66.
- Lammi-Taskula, J. (2008), "Doing fatherhood: Understanding the gendered use of parental leave in Finland", Fathering: A Journal of Theory, Research, and Practice about Men as Fathers, 6, 133-148.
- Lundberg, S. and Pollak, R.A. (1996), "Bargaining and distribution in marriage", Journal of Economic Perspectives, 10, 139-158.
- Magnusson, C. (2009), "Gender, occupational prestige and wages: A test of devaluation theory", European Sociological Review, 25, 87-101.
- Magnusson, C. (2010), "Why is there a gender wage gap according to occupational prestige? An analysis of the gender wage gap by occupational prestige and family obligations in Sweden", Acta Sociologica, 53, 99-117.
- Magnusson, C. (2013), "More women, lower pay? Occupational sex composition, wages and wage growth", Acta Sociologica, 56, 227-245.
- Maume, D.J. (2008), "Gender differences in providing urgent childcare among dualearner parents", Social Forces, 87, 273-297.
- National Institute of Economic Research (2012). Lönebildningsrapporten 2012.
- Naz, G. (2010), "Usage of parental leave by fathers in Norway", International Journal of Sociology and Social Policy, 30, 313-325.
- Olsson, M. (2013), "Employment protection and parental child care", IFAU Working Paper 2013:2.
- Parys, J. and Schwerhoff, G. (2010), "Efficient intra-household allocation of parental leave", IZA Discussion Paper No. 5113.
- Sørensen, A. and McLanahan, S. (1987), "Married women's economic dependency, 1940-1980", American Journal of Sociology, 93, 659-687.

- Statistics Sweden (2012), På tal om kvinnor och män. Lathund om jämställdhet 2012, Statistics Sweden.
- Sundström, M. and Duvander, A.Z.E. (2002), "Gender division of childcare and the sharing of parental leave among new parents in Sweden", European Sociological Review, 18, 433-447.
- The Swedish Social Insurance Agency (2011a), Föräldrapenning, faktablad.
- The Swedish Social Insurance Agency (2011b), Förändringar inom socialförsäkringsoch bidragsområdena 1968-01-01 - 2011-07-01.
- The Swedish Social Insurance Agency (2011c), Tillfällig föräldrapenning vård av barn, faktablad.
- Wright, E.O., Baxter, J. and Birkelund, G.E. (1995), "The gender gap in workplace authority: A cross-national study", American Sociological Review, 60, 407-435.

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