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The division of parent care between spouses

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ABSTRACT
Research on the division of family work has focused on household work and child-care to the exclusion of other domains, whereas studies on care-giving for older people typically ignore spouses' support to care-givers. In this paper we apply an approach that is typical of research on spouses' division of family work in caring for parents, in that the theoretical model focuses on the 'cultural mandates' that guide spouses' division of care, namely gender ideologies about appropriate roles, kinship obligations, and taboos against cross-gender personal care. Other predictors of the spousal division of care drawn from economic and health-care utilisation models are also examined. The analyses use pooled data on 1,449 care occasions from the first five waves of the US Health and Retirement Study. It was found that most couples to some extent share parent care, and that the involvement of husbands depended on a complex interplay of cultural mandates and contexts. Husbands participated most in personal care for parents if the care was mandated by kinship obligations (they cared more for their own than their wife's parents), and by cross-gender care taboos (they cared more for fathers than mothers). Other cultural contexts (such as race), a spouse's other commitments, health-related ability, resources (including support from the parents' other children), and care-burden also played a role. The findings demonstrate that decisions to care for parents emerge from complex negotiations among spouses and their children and siblings or, in other words, that parental care is a family endeavour.

KEY WORDS – care-giving, division of labour, gender ideology, filial obligation.

Introduction

Research on elder care in both the United States and Europe has been dominated by studies that focus either on whether adult children assume care for their older parents or on which children are selected as care-givers (Lowenstein, Katz and Gur-Yatish 2007; Wolf, Freedman and Soldo 1997). In addition, the emphasis has been on primary care-givers, even

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though care is often divided among several adult children and many care-givers are married and rely on spouses for support. On the other hand, research on the division of family work between spouses has typically addressed spouses' relative participation in household work and child-care, but frequently ignored other types of family work, including care for ageing parents (Coltrane 2000; Greenstein 2000). The distribution of parents' care between spouses is, however, of particular theoretical interest because it involves divergent cultural mandates. Whereas the division of housework is driven mainly by a cultural gender mandate (including the influence of other commitments, such as paid work on the spouses' division of labour), and by spouses' individual adherence to these cultural norms, parent care is also subject to cultural mandates about the responsibility for specific kin and the appropriateness of same- and cross-gender care. In some instances, these mandates may be mutually reinforcing; in others they counteract. To address this issue, this paper draws on data from waves 1–5 of the United States Health and Retirement Study (HRS) to explore predictors of spouses' division of parent care, with a special focus on differences in these predictors by kinship (husbands' *versus* wives' parents) and by parent's gender.

Literature and conceptual reviews

Research on elder care

Explanations of men's and women's assumption of the care-giver role derive from several theoretical models, which reflect divergent disciplinary approaches and focus on different aspects of care-giving decisions. One set of explanations addresses the selection of care-givers among relatives and formal providers. Both Cantor's (1991) hierarchical compensatory model and Antonucci's (1990) concept of social-support convoys imply that support is sought first from the closest network members (in terms of either kin relation or intimacy), and that peripheral members are called upon only if the core members (or close kin) are unavailable. Research in this tradition has shown that the normative mandates of kinship in general, as well as adult children's idiosyncratic attitudes about filial responsibility, can affect care decisions and outcomes (Ganong and Coleman 2006; Ingersoll-Dayton, Starrels and Dowler 1996; Lee, Spitze and Logan 2003; Lowenstein, Katz and Gur-Yatish 2007; Peters-Davis, Moss and Pruchno 1999; Shuey and Hardy 2003; Silverstein, Conroy and Gans 2007). Of particular interest for this study is the difference in filial responsibility for own parents and parents-in-law. Although there seems to be less obligation toward parents-in-law (Rossi and Rossi 1990), studies of the

relative involvement in parental assistance by children and children-in-law have yielded mixed results. Some have shown more involvement in help to parents than parents-in-law, but others have shown no differences in support to parents and parents-in-law (Ingersoll-Dayton, Starrels and Dowler 1996; Lee, Spitze and Logan 2003; Merrill 1993; Peters-Davis, Moss and Pruchno 1999; Shuey and Hardy 2003). Help to parents and parents-in-law may also differ by gender. Both Gerstel and Gallagher (2001) and Lee, Spitze and Logan (2003) found that women gave less help to parents-in-law than to parents, whereas men provided similar help to both parents and parents-in-law, suggesting that wives caring for their own parents are able to enlist husbands' support.

Economic and behavioural health-care utilisation models have emphasised parents' needs (Stark 1995) as well as rational choice, including the opportunity costs of care-giving, substitution possibilities, and time demands (Engers and Stern 2002; Johnson and Lo Sasso 2000; Sarkisian and Gerstel 2004). Care-giving involvement is thus seen as dependent on other commitments (employment and other care obligations, as for dependent children) and ability (potential care-givers' health or care skills), parents' care needs, characteristics of the care situation (*e.g.* co-residence), and alternative care resources (income or family members). Expanding on these models, recent assessments of care decisions, especially by adult children, have emphasised aspects of the parent-child relationship. Specifically, emotional closeness, reciprocity and similarity have been seen as important predictors of care decisions (Henretta *et al.* 1997; Pillemer and Suitor 2006; Silverstein *et al.* 2002). The few studies that have gone beyond the usual emphasis on primary care-givers have provided evidence that care decisions involve complex negotiations among adult children, and that adult children's care decisions are interdependent (Checkovich and Stern 2002; Finch and Mason 1993).

Neither of these research traditions have explicitly addressed gender differences in care-giving, although most studies have indicated that women prevail among primary and secondary care-givers (Arber and Ginn 1991; Calasanti and Slevin 2001; Campbell and Martin-Matthews 2003; Cancian and Oliker 2000; Coward and Dwyer 1990; Finley 1989; Martin Matthews and Campbell 1995; Wolff and Kasper 2006). Studies of gender differences have provided various explanations for women's primacy as care-givers (Campbell and Martin-Matthews 2003; Finley 1989; Lee 1992). One refers to kin hierarchies in the context of the demographics of care. Because responsibility to provide care falls foremost on close kin (*viz.* spouses followed by adult children), and because women typically marry men who are older than themselves, women are more likely than men to have spouses that need care. Women's greater longevity

reinforces the cross-gender personal care taboo to favour care for mothers, especially by daughters (Campbell and Martin-Matthews 2003). Thus, wives are more likely to become a carer for a spouse than husbands, and daughters are more likely to be called upon to care for their widowed mothers (Davey and Szinovacz 2007).

Gender ideology manifests itself in several ways in the allocation of care responsibilities. Campbell and Martin-Matthews (2003) referred to legitimating excuses, obligations, the commitment to care, and caring by default as the main factors and mechanisms that influence gender differences in care decisions. In addition, the development over the lifecourse of care commitments among female kin may strengthen women's feelings of obligation to provide care to parents, particularly mothers (Finch and Mason 1993). The gender mandate is the basis for defining care work and kin-keeping as women's work, and it partly legitimates the reasons (or excuses), such as other commitments, constraints and incompetence, that men use to limit their involvement in care-giving (Calasanti and Slevin 2001; Campbell and Martin-Matthews 2003; DiLeonardo 1987; Finch and Mason 1993). It is clear that the gender gap in elder care cannot be fully attributed to differences in daughters' and sons' sense of filial obligation, nor even to differences in men's and women's time commitments or relative resources (Finley 1989; Martin-Matthews and Campbell 1995; Silverstein, Conroy and Gans 2007).

Being a care-giver by default is a consequence of the lack of alternative care providers. Studies have shown, for example, that an adult child is less likely to provide care to parents if they have one or more sisters (Franks, Pierce and Dwyer 2003; Gerstel and Gallagher 2001; Horowitz 1985; Wolf, Freedman and Soldo 1997). Even when no other kin are available, however, men may not be defaulted to those types of care typically considered as women's responsibility, such as hands-on personal care (Campbell and Martin-Matthews 2003; Finley 1989). Nevertheless, some men do assume care responsibilities, especially for their spouses and parents (Allen 1994; Campbell and Martin-Matthews 2003; Carpenter and Miller 2002; Harris *et al.* 1999; Hooker *et al.* 2000; Kirsi, Hervonen and Jylhä 2000; Miller and Guo 2000; Rose-Rego, Strauss and Symth 1998).

Gender differences in care-giving are also fostered by the cross-gender taboo regarding personal care. There is evidence that sons, in particular, feel inhibited about providing cross-gender personal care (Campbell and Martin-Matthews 2003; Montogomery 1992), and that some women resist personal care by sons or grandsons (Szinovacz 2003, 2007). Although the taboo holds for women as well, it seems that crossing gender boundaries in care-giving contexts is more acceptable for women than men (Hooyman

and Gonyea 1995). This implies that gender differences in assistance to parents are task-specific. Indeed, research indicates that gender differences in help to parents vary by its type (Finley 1989; Horowitz 1985), and that filial responsibility norms influence son's participation in gender-neutral and traditionally female tasks but not in traditionally male tasks (Campbell and Martin-Matthews 2003).

Another normative foundation of care-giving is the cultural or sub-cultural context. Adult children in North America and Europe typically feel a strong obligation to assist their ailing parents (Finley, Roberts and Banahan 1988; Lawton, Silverstein and Bengtson 1994; Lee, Peek and Coward 1998; Rossi and Rossi 1990), and the extent of such feelings influences their involvement in parents' care (Campbell and Martin-Matthews 2003; Lee, Peek and Coward 1998; Lowenstein, Katz and Gur-Yatish 2007; Walker *et al.* 1990). Nevertheless, filial responsibility norms as well as beliefs about the relative responsibility of family *versus* state support for older people vary considerably among nations and cultures, partly in response to the country's welfare regime (Lowenstein, Katz and Gur-Yatish 2007). Similarly, there are considerable sub-cultural variations in both norms and practice. Research suggests, for example, that African-Americans exhibit stronger filial responsibility attitudes than Whites (Burr and Mutchler 1999; Cagney and Agree 1999; Dilworth-Anderson, Williams and Gibson 2002; Lee, Peek and Coward 1998; Shuey and Hardy 2003; Sudha and Mutran 1999).

A major limitation of these studies is that few have considered the help and support from the care-giver's family members. Investigations of this issue have demonstrated that some couples share care for elderly relatives, although estimates of husbands' involvement vary considerably (Barrett and Lynch 1999; Brody *et al.* 1994; Franks and Stephens 1996; Suitor and Pillemer 1996). There is evidence that some husbands are indifferent about their wives' care-giving involvement, and that others are antagonistic towards, and even hinder, their wife's care-giving (Horowitz 1985; Matthews and Rosner 1988; Suitor and Pillemer 1994). Furthermore, men seem to be drawn into parental care-giving by their wives and daughters. Gerstel and Gallagher (2001) found, for example, that men's hours of care to their wives' parents were positively associated with their wives' hours of help as well as to the presence in the household of minor daughters. Other studies have shown that the spouse's support, as well as the spillover of stress from the care-giver to the marital relationship, influenced care-givers' wellbeing (Franks and Stephens 1996; Stephens and Franks 1995). This suggests that analyses of care decisions and care-giver stress need to consider the extent to which the care-givers' nuclear family members are supportive.

Research on the division of family labour

Whereas the research literature on elder care has focused on individual care-givers, research on family work has concentrated on the division of labour between spouses and has relied on theoretical models that emphasise gender ideology and gender display as well as bargaining or exchange; that is, the spouse's competing commitments and their relative power and resources (Brines 1994; Coltrane 2000; Greenstein 2000; Kroska 2004; Szinovacz 2000). The gender-ideology perspective refers to societal norms and dependencies that are reflected in the division of family work. Societal standards assign routine family work to women and thus tie women's (but not men's) performance of family work to gender identity. Following these standards, women display gender through family-work performance. Men, on the other hand, are more likely to feel that participation in family work undermines their gender identity and, for this reason, to contribute less to family work (Brines 1994; Greenstein 2000). Studies that have addressed this issue have either assessed gender ideology at the macro-level, by documenting cross-cultural or sub-cultural differences in the spousal division of household labour (Coltrane 2000; Davis and Greenstein 2004; Evertsson and Nermo 2004; Lewin-Epstein, Stier and Braun 2006), or made the assessment at the micro-level, by examining the association between spouses' gender role attitudes and their division of household work (Greenstein 2000; Szinovacz 2000).

Although the cultural mandate that assigns most routine housework tasks to women applies in North America and Europe, there is considerable cross-cultural and sub-cultural variation (Davis and Greenstein 2004; Evertsson and Nermo 2004; Lewin-Epstein, Stier and Braun 2006). In countries or in sub-cultural contexts that support gender equality (*e.g.* among Blacks in the United States, and among spouses with higher education), husbands tend to participate more in housework (Coltrane 2000; Davis and Greenstein 2004; Evertsson and Nermo 2004; Lewin-Epstein, Stier and Braun 2006; Orbuch and Eyster 1997). Furthermore, in contexts characterised by an egalitarian gender-role ideology, other factors, such as spouses' relative bargaining position or other commitments, tend to play a greater role in the spouses' division of household labour than they do in more traditional gender-ideology contexts (Evertsson and Nermo 2004; Lewin-Epstein, Stier and Braun 2006; Szinovacz 2000).

Gender display, in the form of husbands' low participation in housework in circumstances that threaten the husband's authority in the marriage, such as a wife's high income, also seem to vary by cultural context. For example, Evertsson and Nermo (2004) showed that gender display was more pronounced in the United States (culturally a more

gender-traditional country) than in Sweden (with greater cultural support for gender equality), and Szinovacz (2000) found that retirement had a more profound effect on spouses' housework among couples with more egalitarian gender-role attitudes. The bargaining or exchange perspective asserts that the division of housework evolves from spouses' negotiations influenced by relative resources and other commitments. According to this perspective, the spouse with greater resources (especially earnings and education) is able to reduce his or her relative contributions to family work. Several studies have suggested, however, that extreme economic dependence of the husband may be neutralised through enhanced gender display; that is, spouses compensate for deviations from the husband's role as main provider through a more traditional division of household labour (Bittman *et al.* 2003; Brines 1994; Greenstein 2000). Assessments of relative commitment have typically focused on the spouse's relative involvement in employment, and several studies have shown that spouses adjust the time they spend on housework to their paid work (Coltrane 2000; Davis and Greenstein 2004; Evertsson and Nermo 2004; Szinovacz 2000).

The theoretical framework and analysis design

Overall, there are similarities but also substantial differences in the various theoretical approaches that have addressed parent care and housework. Our theoretical framework draws on several strands of current thinking about the predictors of care-giving and the spousal division of household labour. Perhaps the main difference between the studies that address care-giving and those that examine housework is that the former focus on individuals' decisions to assume care, whereas the latter concentrate on the distribution of housework among the household members. This study applies the latter approach to the study of caring; that is, we investigate the distribution of care between adult-children and their spouses, and thus implicitly assume a multi-tiered decision process in which the decision to provide care at all is differentiated from decisions about the involvement of various nuclear family members. It could be argued that the two levels of decision(s) are intricately linked or endogenous; that is, that care decisions are partly influenced by expected support or opposition from spouses. Such endogeneity is not testable, however, because the distribution of care among adult children and their nuclear family members can only be assessed for current care-givers. There is also some evidence for the view that care decisions are multi-tiered. Stern (1996), for example, using the US National Long-Term Care Survey, documented a hierarchy of family decisions about care: decisions about children's geographical location in

relation to their parents preceded care decisions, whereas decisions about employment (which are often considered endogenous to care decisions) followed the decision to provide care. Our approach, analogous to that used by studies of the household division of labour, has been to assess the division of care between adult-child care-givers and their spouses. Although decisions to provide care are contingent on the recipient's needs (Altonji, Hayashi and Kotlikoff 1995), it is conceivable that adult children who expect opposition or disapproval from their spouse do not become involved in care in the first place. This would be reflected in the distribution of the dependent variable (*viz*. the division of care between spouses), but should have little effect on the factors that influence the spousal division of care.

Both studies on elder care and on housework demonstrate considerable gender imbalance; that is, women are much more involved in family and care work than men (Coward and Dwyer 1990; Davis and Greenstein 2004; Martin Matthews and Campbell 1995), but conceptualisations of gender differences in elder care and housework vary considerably. In the elder care literature, gender is seen most often as a predictor of an adult child becoming a carer and of the extent of care, but without consideration of their spouse's involvement and supports. In contrast, investigations of housework stress the division of labour between spouses. For our analyses, the gender mandate will be reflected in the overall distribution of care between spouses; that is, we expect that women will spend more hours in care activities than men.

Because the spousal division of housework pertains exclusively to the nuclear family unit, cultural mandates concerning kin obligations or taboos about cross-gender care are irrelevant (except in regard to task specificity). We assume that these mandates play an important role in the division of care between spouses. How these mandates operate on the spousal division of care depends on who is the care recipient. The kinship mandate will contribute to relatively low participation of husbands in care for his wife's parents, and relatively high participation in care for his own parent. Because our analyses are restricted to personal care (other care activities were not included in the HRS), we also expect an influence of the cross-gender taboo. Thus, husbands' participation should be higher in caring for fathers than for mothers.

Although the main thrust of our analyses pertains to the combined effects of gender, kinship and cross-gender care mandates, other predictors of care-giving and spouses' division of family work were included as covariates. These include sub-cultural variations in the gender and kinship mandates (there were no variables for spouses' gender-role ideology or filial-responsibility attitudes in the HRS), a spouse's competing

commitments, resources, and certain characteristics of the parent that define care-giver burden (for which there were no direct measures). Given our reliance on a United States survey, analyses of the potential influence of cultural variations in gender equality were restricted to sub-cultural and socio-economic groups. Based on earlier research, we expected more participation of husbands among minorities and especially Blacks, as well as by husbands with more education. The Health and Retirement Study (HRS) had no direct measure of gender-role attitudes, but the extent of the spouses' joint leisure activities was available. To the extent that this variable captures the amount of gender segregation in spouses' activities overall, it may reflect a husband's willingness to support their wife's care work. We thus expect more participation by husbands among couples who spend most of their leisure in joint activities.

Resources and other commitments have been considered in both research areas though again with different emphases. Studies of care-giver selection have typically included individuals' commitments and resources, whereas some studies of the household division of labour have examined spouses' relative resources or commitments. Our analyses rely on a mixed approach that reflects the relative importance of individual *versus* couple characteristics for the spousal division of care-giving. Because we are dealing with care-givers aged over 50 years, the spouse's physical ability to provide care, or capacity to care, may influence her or his level of involvement. Generally, we expected spouses to be more involved in care the better their ability to provide care. We capture 'ability to care' with both spouses' self-reported health. Resources are either economic or familial. Couples with higher incomes will be able to hire paid help, and those with larger family networks (*i.e.* more siblings and adult children) will be able to rely on alternative care-givers for support. Such resources are likely to increase a husband's legitimate excuses to leave most of the care to their wife and other helpers (Campbell and Martin-Matthews 2003), and thus to reduce his relative participation in care.

Relative commitment typically refers to spouses' relative involvement in competing obligations, especially employment and care for children. Even though women typically spend more time in parenting than husbands, the presence of dependent children in the household may create legitimating reasons for husbands to leave care-giving to their wives. It is also conceivable, however, as some research has suggested, that daughters pull fathers into care (Gerstel and Gallagher 2001). To test this possibility, we assessed the separate influences of sons' and daughters' presence in the household on the spousal division of care. In line with their emphasis on individual care-givers, studies of elder care have neglected the possibility that gender display compensates for a husband's failure to be the main

provider. Because our analyses are based on a sample of individuals aged over 50 years, some spouses may have already retired. Rather than testing gender display on the basis of relative earnings or income, we used spouses' hours-of-work. Past research suggested that situations in which husbands retire prior to their wives run counter to gender ideology (Myers and Booth 1996; Szinovacz 1996; Szinovacz and Davey 2004). In such situations, employment may not function as a competing commitment but rather elicit gender display; that is, a husband participates less in care if their wife spends more time than he does in paid employment.

Only a few variables in the HRS address the parent's need for care. It was assumed that, in general, the higher the care burden, the greater the husbands' participation. Parents' ages, their dependence on constant care (*i.e.* cannot be left alone), and the total number of care hours should reflect the amount of needed care (there were no indicators of parents' health). Married parents may receive help from their spouses and are therefore expected to require less care. On the other hand, co-residence with parents may result in either more care or more spousal sharing of the care. Care for other parents (either the parent's spouse or parents-in-law) will raise the couple's overall care burden and should thus enhance the husband's participation.

The hypotheses

As fully explicated above, the focus of our analyses is the influences of three cultural mandates on husbands' relative participation in providing personal care to parents. It was hypothesised that the level of a husband's participation depends on whether these mandates reinforce or counteract each other, and on the spouse's abilities and other commitments. Three specific hypotheses were formulated:

H1 On the husbands' relative participation in the care of parents, it will be lowest for wives' mothers, because all three mandates reinforce each other, and it will be highest for their own fathers, because both the kinship obligation and the cross-gender personal-care taboo counteract the gender mandate.

H2 As a consequence of gender display, husbands will participate less in care if their paid-work hours are substantially lower than their wives'.

H3 Other predictors, especially spouses' relative work hours and health, will have the strongest effect on the division of the care when it is provided for husbands' parents or fathers, because in both care situations, the gender mandate is counteracted by the kinship obligation and the same-gender personal-care mandate.

Methods

The source data and study sample

The data were drawn from Waves 1 to 5 (1992, 1994, 1996, 1998, 2000) of the US Health and Retirement Survey (HRS), a longitudinal bi-annual survey of households based on interviews with a primary respondent aged 51–61 years at Wave 1 and his or her spouse of any age. The primary original sample of the HRS comprised 12,652 respondents and spouses from 7,702 households. The selection of households was based on a multi-stage, area-probability design that over-sampled for minorities and the residents of Florida. The response rate was over 80 per cent (for further details see Juster and Suzman 1995).

To achieve enough cases for the complex analyses, couples involved in any parent care in Waves 2 to 5 were pooled. Wave 1 provided the baseline data. For each wave, we first identified couples who were in the same relationship as at the previous wave (this is necessary to include baseline spouse characteristics in the analyses), and who reported that they had provided care to a parent or parent-in-law (or both) since the previous wave.[1] For each unit of analysis, the 'care occasion', we then assembled the characteristics of the care-recipient parent and of each spouse. The same couples can therefore be involved in several care occasions, as when they cared for more than one parent, or were caring at two or more HRS waves. The dataset has 1,449 care occasions, 966 for wives' parents and 483 for husbands' parents. Care to both parents of the same spouse occurred in 9.1 per cent of cases, whereas simultaneous care for a parent and a parent-in-law accounted for 1.4 per cent of the care occasions. Most (67.6 %) care situations were restricted to one wave, but 22.7 per cent of the care occasions were of situations that recurred at two waves, and just under 10 per cent recurred at three or more waves. Adjustments were made for this non-independence of the observations.

The measures

The *dependent variable* was 'husband's relative participation in parent care'. Family-related questions in the HRS were only asked of the so-called 'family respondent', usually the wife in couples. They were asked whether they or their spouse had 'spent 100 hours or more since the last wave helping your parent(s) with basic personal needs like dressing, eating, and bathing?' Respondents who indicated such help were then asked how many hours they and their spouses spent helping the parents. The analyses are exclusively of the respondents who provided such assistance during Waves 2 to 5. The husband's relative participation was calculated using

Sorensen and McLanahan's (1987) formula.[2] It should be noted that the HRS did not contain any measures of other care tasks, such as care management.

The four major dimensions of the *independent variables* are cultural context, parental need, relative commitments and ability, and resources. *Cultural context* includes parent's gender (female = 1, male = 0) and kinship (wife's parent = 1, husband's parent = 0). Race/ethnicity was coded into three dummy variables, namely 'Black', 'Hispanic', and 'Other' (with 'White' the reference category). Husband's education (coded in years) was included as an indicator of socio-economic background. Two measures of the 'marital context' were derived from the responses to a question put to both spouses about 'whether [you and your spouse] spend free time doing things together or separately'. They are dummy variables indicating respectively 'some together/some different' and 'mostly together', and 'separately' is the reference category for both. Preliminary analyses indicated that the wife's perception of joint activities was the stronger predictor, and only the dummies for her ratings were used in the final models.

For *relative commitments and ability*, we used spouses' relative hours-at-work and each spouse's self-reported health. *Spouse's employment status* was derived from answers to the questions whether they did any paid work and, if so, how many hours they spent in her or his job(s). We computed a variable for the husband's relative work hours, calculated again with Sorensen and McLanahan's (1987) formula. To capture gender display and to test for a curvilinear relationship, we used the square of relative work hours. This variable had no effect on the spousal division of care; nor did alternative measures provide support for gender display (*e.g.* dummy variables for both spouses' employment status). These variables were omitted in the final models. *Self-rated health* was measured with a single item: Would you say your health is … ? Answer categories ranged from '1' for *poor* to '5' for *excellent*.

Measures of *resources* were *household income* (in $1,000, truncated at 250,000) and the *availability of adult children and siblings* for parent care. The HRS contains detailed information on each of the care-giver's children (the care recipient's grandchildren). Because children sometimes assist their care-giving parents, we initially included several dummy variables for the adult children's gender, proximity to the parent, and whether the adult children had children themselves. The preliminary analyses revealed that only the presence of *children in the household* and the presence of *childless children living nearby* (within 10 miles) had some impact on spouses' division of parent care. Based on previous research, we differentiated by these children's gender, and created four dummy variables (son in care-giver's

household, daughter in care-giver's household, son without children close by care-giver, daughter without children close by care-giver). The reference category in each case was the absence of the specified child. For each parent, respondents were also asked whether their *siblings provided help* with personal needs to the parents (1 = yes, 0 = no). It should be noted that for wife's parents, siblings refer to the wife's siblings (or her parents' other adult children), whereas for husband's parents, siblings refer to the husband's siblings (or the husband's parents' other adult children). In addition, we included *number of siblings* (differentiated by gender) for both spouses. The number of husband's siblings had no effect on care provision and was dropped from the final models.

Care burden was measured with five variables. *Total care hours* is the logarithm of the average of husband's and wife's care hours. The HRS collected two measures of parents' care needs, but no assessment of their health. Specifically, respondents were asked whether their parents required assistance with basic personal needs and whether they could be left alone. Preliminary analyses indicated that neither of these variables influenced the spouses' division of care. Nevertheless, we retained whether *parents could not be left alone* as a covariate in the final models (1 = yes, 0 = no). *Parent's marital status* is a dummy variable (married = 1, not married = 0). We also included dummy variables for whether the respondent *provided care to another parent* during the same time interval (1 = yes, 0 = no), whether they *provided financial assistance* to the parent, and *whether the parent lived with the respondent* (1 = yes, 0 = no).

All models controlled for the HRS wave from which the care information was drawn (with Wave 5 the reference category). Means and standard deviations of all variables for the full sample (both parents) are shown in Table 2 (last two columns). Note that to justify the causal interpretations, most of the independent variables were taken from the wave preceding the report of parent care. The only exceptions are the other retrospective care variables (care for other parent, siblings providing care). In addition, we used the average of spouses' health at Time 1 and Time 2 to indicate health changes between the waves.

The analyses

The distribution of the outcome variable had many more observations at both extremes (−100, +100) than would be expected for a normally distributed variable. For this reason, we estimated our models using the technique of interval regression, which treats these extreme values as censored observations (*i.e.* −100 = −100 or lower; +100 = +100 or greater). Standard errors in our models were further adjusted for the

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TABLE 1. *Distribution of care between spouses, by parent's gender and kinship*

	Husband's father	Husband's mother	Wife's father	Wife's mother	Total
			Percentages		
Husband provides no care	2.0	10.5	35.1	48.7	33.2
Husband less than wife	21.8	22.8	39.2	36.7	32.4
Both equal	18.8	27.4	19.4	9.8	16.5
Husband more than wife	29.3	28.4	6.0	4.7	12.9
Husband provides all care	28.2	10.9	0.5	0.1	5.1
Mean relative care hours	31.8	4.6	−55.6	−67.6	−39.6
Sample size	112	371	222	744	1,449

Notes: Based on the Health and Retirement Study, Waves 1–5 (1992–2000). The range for mean relative care hours is from −100 (wife all) to +100 (husband all).

non-independence among the variables that derived from the complex survey sampling design and from using care occasions as the level of analysis by estimating these interval regression models using the cross-sectional time-series routines available in Stata 9 (StataCorp 2005). The predictor variables that had little effect on spouse's relative care hours (identified above) were removed from the final models. Multiple imputation was used to address issues of missing data (Little and Rubin 1987; Schafer 1997). Variance inflation tests indicated that multi-collinearity was not a concern.[3]

Results

The main hypotheses concerned the influence of the gender, kinship obligation and cross-gender personal-care taboo mandates on the distribution of care between spouses, and the results on the variations in the distribution by the gender and kinship of the care recipient provide overall support for each mandate (see Table 1). Wives clearly predominated as care providers, and in close to two-thirds of the care occasions provided all the care or more than their husbands. Their predominance reflects partly more opportunities for care and partly kinship and cross-gender mandates. Over one-half of all care occasions involved care to wives' mothers, whereas fewer than 10 per cent entailed care for husbands' fathers. Wives were considerably more involved in the exchanges where kinship and cross-gender mandates favoured care by husbands than were husbands in those situations that mandated care by the wife. More specifically, close to one-quarter of wives were the main care-givers for husbands' fathers, but fewer than five per cent of husbands were the main care-givers for wives'

mothers. There was also support for the kinship and cross-gender mandates. Husbands participated much more in care for their own than their wives' parents, and they were more involved in caring for fathers than mothers (these effects held in the multivariate model). The results nevertheless demonstrate that husbands were considerably involved in care, and support the proposition that much care-giving is shared between spouses. Overall, close to two-thirds of the couples indicated that both spouses participated in care. Joint involvement predominated in the care of husbands' parents, because wives were much more likely to be the sole care-givers for their own parents than husbands were for their parents.

The results of the four regression models are presented in Table 2. Models 1 and 2 were separate runs for the husbands' and the wives' parents. Model 3 presents the coefficients for both spouses' parents without interaction terms by kinship, and Model 4 (shown on the right-hand page) adds selected kinship interaction terms.[4] The cultural mandate variables exhibited a strong influence on husband's relative involvement in parent care. As shown by Models 3 and 4 for both parents, the effect of kinship was overwhelming, which supports the effect of kinship obligation. There is also confirmation of the preference for same-gender care, with husbands participating less in the care of female parents. Note that the influences of these two mandates were additive; that is, the interaction between kinship and parents' gender was not significant and was not included in the final model. These findings provide support for Hypothesis 1. There was no support for the second hypothesis. Spouses' relative work hours (the variable was coded so that a higher score indicated more work on the part of husbands) were negatively related to husbands' participation in care; that is, the more husbands worked relative to their wives, the less they were involved in care. To test for gender display, we initially added squared relative work hours to the model. This variable was not significant, suggesting that the relationship is linear. Neither did the alternative tests of the hypothesis support the hypothesis of gender display. For example, couples in which wives were employed and the husbands were not employed reported more involvement of husbands in care than couples in which neither spouse worked.

In addition to the hypothesised relationships, we also examined other potential predictors of spouses' division of care as outlined in the theoretical framework. The expected race effect was found, with African-American husbands participating more than their White counterparts, but a husband's education had no significant effect on his care involvement. A wife's perception of the couple's involvement in joint activities was positively related to the husband's participation in care. Among the couples who spent most leisure together, husbands participated more in

TABLE 2. *Interval regression models for husbands' relative participation in parents' personal care*

Variables and categories	Husband's parents *B*	Wife's parents *B*	Both spouses' parents … without interactions *B*	Both spouses' parents … with interactions *B*	Mean	SD
Wife's parent[1]			−104.87**	−116.72**	0.66	0.47
Mother[2]	−39.75**	−26.45**	−31.98**	−30.17**	0.77	0.42
Black[3]	53.34**	25.95**	36.19**	54.32**	0.11	0.31
Hispanic[3]	2.01	1.96	0.34	0.49	0.05	0.23
Other race[3]	0.69	7.51	6.22	5.41	0.04	0.21
Husband's education (centered)	1.80	1.00	0.91	1.09	0.00	3.23
Some leisure spent jointly[4]	−0.62	15.62*	10.88§	0.68	0.33	0.47
Most leisure spent together[4]	−6.55	24.72**	12.93*	−8.14	0.49	0.50
Relative ability and commitments						
Relative work hours (centered)	−0.21**	−0.06	−0.11**	−0.23**	0.00	64.33
Husband's health (centered)	17.97**	6.07*	11.29**	19.41**	0.00	1.03
Wife's health (centered)	−6.86*	2.61	−1.93	−7.14*	0.00	1.02
Resources and supports						
Household income[10]	−0.08	−0.19**	−0.15**	−0.15**	0.00	53.16
Siblings provide care to parent[5]	17.56**	−11.66*	−2.01	17.16**	0.54	0.50
Number of brothers (centered)	−6.40*	−3.87*	−4.87**	−4.98**	0.00	1.39
Number of sisters (centered)	−2.08	−6.59**	−5.24**	−4.97	0.00	1.53
Daughter in household[6]	28.13§	−7.85	1.86	28.37§	0.05	0.22
Son in household[6]	−16.55	17.49	5.96	−20.09	0.05	0.22
Daugher without children lives close[6]	26.46*	1.98	10.68§	26.23**	0.11	0.31
Son without children lives close by[6]	−16.21§	9.14	−0.43	−14.86§	0.15	0.35
Indicators of care burden						
Number of care hours[11]	−2.29*	−1.39	−1.29	−1.65	0.00	1.78
Care for other parent[7]	37.73*	15.49	18.87*	20.86**	0.10	0.30
Give financial help to parent[7]	−16.53*	13.88*	2.68	−14.62§	0.23	0.42
Parent married[7]	−23.46	−9.81	−12.96	−13.70*	0.25	0.43
Parent cannot be left alone[8]	1.21	−0.16	−0.97	0.55	0.23	0.42
Parent lives with respondent[9]	5.17	18.31*	10.39	13.80*	0.11	0.31
Controls						
Data from wave 2	−15.35§	−9.08	−12.28*	−10.53§	0.24	0.42
Data from wave 3	−28.10**	−3.21	−12.41*	−11.00§	0.24	0.43
Data from wave 4	−7.32	−0.97	−3.42	−2.77	0.23	0.42
Constant	53.42**	−85.71**	32.08**	38.08**		
Wald chi-squared statistic	118.89**	118.89**	736.16**	815.93**		
N	483	966	1,449	1,449		

care, but this effect was restricted to care for wife's parents (the interaction term was significant). Altogether these findings indicate a strong influence of the cultural context on the couple's division of parent care. They suggest, for example, that husbands in couples that shared a large proportion

TABLE 2. (*Cont.*)

Interactions with care of wife's parent		Interactions with care of wife's parent	
Variable	*B*	Variable	*B*
Black	−28.14*	Son in household	37.61§
Relative work hours	0.16*	Daughter in household	−35.97§
Some joint leisure	14.67	Son without children close by	23.05*
Most joint leisure	33.70**	Daughter without children close by	−23.74§
Husband's health	−13.86**	Gives financial help	27.96**
Wife's health	9.35*	Siblings provide care	−29.40**

Notes: 1. Reference case, husband's parent. 2. Reference case, father. 3. Reference for race, White. 4. Reference for leisure, little leisure spent jointly. 5. Reference case, siblings do not provide care. 6. Children of the caregiving couple; Reference case, have no children in this group. 7. Reference case, 'no'. 8. Reference case, parent can be left alone. 9. Reference case, parent does not live with respondent. 10. Truncated and centred. 11. Logged and centred. All analyses based on Waves 1–5 (1992–2000) of the US Health and Retirement Study. SD: standard deviation. Standard errors adjusted for non-independence.
Significance levels: § $p<0.10$, * $p<0.05$, ** $p<0.01$.

of their leisure activities (at least in the wife's estimation) provided relatively high support to wives for the care of their parents. Each spouse's work hours and health-related ability to provide care also influenced the distribution of care. The effect of husbands' health was somewhat stronger than that of wives', but both were significant. The health effect differed by kinship, and was more pronounced on the care for husbands' than wives' parents, suggesting that husbands were more likely to adjust their care involvement in response to their wife's health when the care was for their own than for their wife's parents.

Among the resource indicators, significant main effects were found for household income and for the numbers of the wife's brothers and sisters. None of these effects varied by kinship, and the interaction terms were not included in the final model. Household income was negatively related to husbands' relative care hours. The number of the wives' brothers and the number of wives' sisters both reduced husbands' participation in care. Care provision by siblings led to a more segregated spousal division of parent care. For wives' parents, husbands participated somewhat less if wives' siblings provided care, whereas husbands were more involved in their own parents' care if their siblings also provided care. The effects of spouses' children were more complex and varied by kinship. Having a son or daughter in the household had no significant impact on the spousal division of care, but there was a tendency for husbands to provide more care to their own parents if a daughter lived in the spousal home ($p<0.10$). In addition, husbands were more involved in the care of their own parents if a daughter lived close by the couple, whereas the inverse tendency held

for nearby sons. The presence of children had no effect on husbands' participation in care for wives' parents. This suggests that daughters pull husbands into care for their own parents, whereas sons distract husbands from such care.

The final group of predictors refers to care burden or parental need. Total care hours and whether the parent could be left alone had no influence on the husband's involvement, suggesting that the overall amount or intensity of care were not main determinants of his support. Husbands were somewhat less involved if the parents were married, but were more involved if the couple cared for another parent or lived with the parent. Some of these effects differed by kinship. The parents' marital status and caring for other parents seemed more important for husbands' parents, but the interactions were not significant. On the other hand, co-residence seemed a more important influence on care for wives' parents although the interaction term was not significant. The association of husbands' involvement with the provision of financial support differed by kinship, and the interaction was significant. Provision of financial support reduced husbands' involvement in care for their own parents but increased their participation in care for the wives' parents. These findings suggest that complex negotiations take place by which specific characteristics of the care situation or of the care recipients either draw husbands into care or provide legitimate excuses for relegating most care to their wives.

Conclusions

Using a large, nationally representative survey dataset from the United States, we have assessed whether deepening our understanding of the spousal division of providing care to parents usefully informs research on both care-giving and the marital division of family work. The findings of the presented analyses confirm the results of earlier (but mostly small and qualitative) studies that parent care is indeed often shared and negotiated between spouses (*e.g.* Finch and Mason 1993; Matthews and Rosner 1988). Over one-half of the sampled husbands participated in care for their wives' parents, and 85 per cent of the sampled wives were involved in care for their husbands' parents. This finding has important implications for research on care-giving. It suggests that to focus on the main care-givers, as is common in caring research, ignores an important dimension of the activity, namely the support that care-givers receive from spouses and other nuclear family members. Future research should therefore recognise that care-giving is a family enterprise and pay closer attention to how expected and actual support from family members influences care decisions

and their effects on the care recipients, the carers and other family members. Given the limitations of the data, it will also be important to carry out further research on which care tasks are shared between spouses.

The first hypothesis addressed the influence of cultural mandates on spouses' relative involvement in care. In contrast to the division of household labour, which is strongly influenced by a gender mandate, care decisions may also be influenced by other cultural mandates, as about kinship obligations and the acceptability of cross-gender involvement in personal care (Campbell and Martin-Matthews 2003; Rossi and Rossi 1990). The findings provide evidence of the influence of all three mandates. The prevalence of women as primary care-givers results from the combined effects of the gender mandate in the allocation of care work to women and of structural opportunities. Women become main care-givers not only because care is seen as women's work, but also because care situations that kinship obligation and a cross-gender personal care taboo predispose toward women's participation are much more common than those that the mandates and taboo predispose toward men's care. This insight casts some doubt on the prevalent assumption that care work is almost exclusively a female domain (Calasanti and Slevin 2001). At least some part of the gender effect on care involvement cannot be attributed to a cultural gender mandate, but rather reflects structural contingencies, and when these cumulatively favour men's involvement (as with care for husbands' fathers), the majority of husbands are indeed found to contribute more time to care than their wives. Husbands' greater involvement in care for their own kin and in care for fathers also supports our assumption that care decisions reflect the interplay of multiple cultural mandates.

The importance of the cultural context is also evident from the effects of race. The more egalitarian gender ideology among African-Americans to some extent overrides the gender and kinship mandates; that is, Black husbands are more involved in care for their own and their wives' parents than are White husbands for theirs. Thus the more egalitarian gender role ideology among Blacks, as documented by Shuey and Hardy (2003), seems to extend to family care-giving. It is also conceivable that filial responsibility norms are more generalised (*i.e.* less focused on blood kin) among African-Americans, in line with the greater inclusiveness of kin networks among this group (Dilworth-Anderson, Williams and Gibson 2002).

It was also found that the husbands of couples that had relatively numerous joint leisure activities had above-average involvement in care, especially for wives' parents. Because wives' perceptions of leisure sharing was a stronger predictor than husbands', it is conceivable that the association reflects wives' appreciation of husbands' support. Nevertheless, this

finding points to an interplay between cultural mandates at the societal level and couples' resolutions of gender roles and kin obligations. Past research has shown that both the macro-cultural context (Davis and Greenstein 2004; Evertsson and Nermo 2004), and spouses' gender-role ideologies (Greenstein 2000) play important roles in a couple's division of family work. Future research needs to address the interplay between these factors, a task that will require cross-cultural studies that include indicators of spouses' gender ideologies and attitudes to filial responsibility.

The second hypothesis concerned the role of gender display. We found no evidence of enhanced gender display in the models that included either spouses' relative work hours or their employment status (data not shown). Rather, the more that husbands worked relative to their wives, the less they were involved in care, especially for their own parents. This suggests that gender display may be restricted to certain types of family work (*e.g.* housework). It would be useful if future studies explored this possibility by comparing gender display in different family work contexts (*e.g.* housework, parenting and care-giving). As far as spouses' relative ability to provide care was concerned, the health of both spouses' health had significant effects. Husbands' health was positively linked to care for their own and their wives' parents, whereas wives' health seemed to reduce husbands' participation in care for their own parents.

The third hypothesis referred to the interplay between the cultural mandates and the effects of spouses' relative ability and commitments, and received partial support. We found that relative work hours and wives' health were more important for the division of care for husbands' parents, whereas husbands' health had a significant influence on care for both spouses' parents. Thus, it was mostly when the kin obligation counteracted the gender mandate that relative work commitment and wives' ability to provide care served as legitimating reasons for husbands to leave care work to their wives. This finding corroborates earlier evidence that spouses' relative commitments and abilities are more important predictors of their division of family work when meta rules governing gender display allow such flexibility (Evertsson and Nermo 2004; Szinovacz 2000). Husbands' poor health, on the other hand, seemed to offer a generalised opportunity to withdraw from care, regardless of kin obligation. Drawing from economic and health-care utilisation models, we also explored the main effects of certain resources and indicators of care burden on the spousal division of care. Household income, which may offer couples the opportunity to hire paid help, was negatively linked to husbands' participation in care. The analyses could not determine, however, whether couples actually relied on paid help or, alternatively, whether husbands used such potential as a reason to withhold support.

The results provide further evidence that the availability of alternative helpers within the adult-child kin network provides both spouses with a plausible reason for relatively less participation in care (Campbell and Martin-Matthews 2003). Husbands were generally less involved if their wives had more sisters or brothers. or if wives' siblings provided care, whereas wives participated less in the care of their husbands' parents if his siblings also provided care. This may suggest that, among families with large kin networks, care for parents tends to be distributed among blood kin, whereas small kin networks promote the greater participation of in-laws. Bott's (1957) classic study on kinship and spousal role segregation showed that couples with close kin networks had a more segregated lifestyle than couples with loose networks, and later research confirmed that the association extended to the division of housework between spouses (Szinovacz 1977). Although the HRS provides no information on kin-network integration, future studies can assess whether involvement of multiple siblings in parental care supports the presented findings. Such research would promote the conceptualisation of care work as a family endeavour.

The influence of care-givers' children on the division of care work was more complex. Although the effects tend to be relatively weak (only one was significant at $p < 0.05$), the results tend to confirm the earlier finding that daughters (both inside and outside the household) pull husbands into care for their own parents, whereas sons have the opposite effect (Gerstel and Gallagher 2001). However, sons within the care-givers' household seem to encourage husbands' involvement in care for their wives' parents. It is conceivable that wives relinquish care for their in-laws to their husbands and daughters, but release husbands from some of their care responsibilities to engage in other activities with their sons. Clearly, more research is needed into adult grandchildren's role as their parents' helpers in care for grandparents and, more generally, into the co-ordination of parent care and family leisure activities in the nuclear family.

Certain parental need factors either entice husbands to provide more help or serve as reasons to withhold support. The presence of the parent in the home seems to facilitate joint care-giving by spouses, as does the extra burden of care for another parent. On the other hand, husbands were somewhat less involved if parents were married or if the couple also provided financial support to parents. Perhaps men felt less obligation to take on the personal care of their parents if the parent in question could rely on their spouse. It is also possible, however, that wife carers rely more on their daughters-in-law than their own sons for support. The provision of financial support, which may be viewed more as the husband's

responsibility (as part of their provider role), apparently served as an excuse for husbands to leave more of the care work of their own parents to their wives, but it drew them into care for their wives' parents. This rather unexpected finding may again reflect complex negotiations about support responsibilities within the adult-child network. For example, if husbands take on financial support for parents, they may relegate most of the care to siblings and leave the remaining care work to their wives, a scenario that is apparently more common for husbands' parents. Other couples may take on full responsibility for the (financial and care) support of a parent, with greater involvement of husbands in care activities. The latter scenario seems more typical for wives' parents.

As is true for most secondary analyses of large survey databases, our research lacks the in-depth information that is required to interpret some of the findings. For example, we lack information on the specific care tasks provided by spouses other than that they meet parents' basic needs. Previous research has demonstrated that men's involvement in care varies by care tasks (Campbell and Martin-Matthews 2003). We also lack data on whether spouses' adult children were involved in care activities and how care was exactly distributed among the adult-children network (we know whether parents' other children were involved, but not how much, and there was no information about care by siblings-in-law). In addition, reliance on 'family respondents may have biased the data and overestimated the family respondents' (typically the wife's) involvement (Coltrane 2000).

Despite these caveats, the analyses have led to several conclusions that will inform future research on care-giving. One insight concerns the complex interplay among diverse cultural mandates and contexts. We may ask, for example, whether the strong influence of kinship in the United States would apply equally in countries where there is a widespread expectation that the state will take more responsibility for the care of parents in need (Lowenstein, Katz and Gur-Yatish 2007). Another question is how couples distribute care work if both partners simultaneously adhere to traditional gender ideology and strong filial responsibility norms. Similarly, cultural mandates differ by type of family work. In contrast to studies of spouses' division of household labour, we found no evidence of gender display. Only comparisons of spouses' division of work across different tasks and in various cultural and sub-cultural contexts could unravel these complexities. Equally important, the findings demonstrate the importance of addressing care-giving from a family perspective, including the contexts of the marital relationship and the nuclear and extended families. Care-giver and other family roles are intricately intertwined, and more exploration of these linkages and of the negotiations of

care responsibilities among family members will enhance our understanding both of care-giving and of other family work domains.

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NOTES

1 The HRS question pertaining to parent care asks whether such care was provided since the last wave, not whether care is provided now.
2 Husband's relative care hours = [(husband's hours/total hours) − (wife's hours/total hours)] × 100. The possible range of scores is from −100 (when wife performs all care, and husband does not participate) to +100 hours (when husband performs all care, and wife does not participate).
3 The overall *vif* score was 1.31 for the model for both parents without interaction terms, and no variable generated a *vif* score exceeding 2.0.
4 The continuous variables used as interaction terms were centred (Aiken and West 1991). We also tested for interactions by parents' gender, but none of these interactions were significant, suggesting that predictors of spouses' relative participation in care do not vary by parents' gender.

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