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Why Do Families Differ? Children's Care for an Unmarried Mother

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Abstract

An adult child's provision of care to an unmarried elderly mother varies both within and between families. Within-family differences address the variation in different children's behavior within in a family. Between-family differences refer to the propensities that members of a family—the children of one mother—share and that differentiate them from other families. Previous research suggests five hypotheses affecting either within-family or between-family differences. Data from multiple waves of the Asset and Health Dynamics Among the Oldest Old (AHEAD) cohort of the Health and Retirement Study (HRS; 16,719 observations on 5,607 mother–child dyads in 1,925 families) are used to estimate a multilevel model with a binary outcome. Results indicate substantial differences between families. Mother's characteristics, family composition, and family history account for about half the between-family differences.

Keywords

aging; caregiving; Health and Retirement Study

This article examines adult children's provision of care to unmarried elderly mothers and differentiates within-family from between-family differences in care provision. Within-family differences address the variation in children's behavior in a family. Within-family differences have received extensive research attention in family research on both younger (e.g., Davey, Tucker, Fingerman, & Savla, 2009; Fingerman, Miller, Birditt, & Zarit, 2009; Suitor, Sechrist, & Pillemer, 2007) and older (e.g., Chesley & Poppie, 2009; Henretta, Hill, Li, Soldo, & Wolf, 1997) families. Between-family differences refer to the propensities that members of a family—the children of one mother—share and that differentiate them from other families. Why are children in some families more likely to provide care than those in other families? This issue has received less attention than study of within-family differences. Within- and between-family dynamics are related, of course, because each child's behavior occurs in a unique family context, defined by that family's structure and history.

We discuss existing theories of family exchange, focusing on three exchange processes that may explain between-family differences in provision of care: generalized exchange produced by a shared family culture, compositional processes resulting from the shared demographic structure of a family, and ethnic differences. We also examine two exchange processes that involve group interaction among family members but are likely to produce within-family differences: demonstration and restricted-dyadic exchange.

In summary, our goal is to use existing exchange theory to develop and estimate the parameters of a framework that specifies the relative amounts of within- and between-family differences in care provision. Much like organizational studies that describe differences in work culture between organizations while acknowledging that differences exist between individuals in any one organization, we examine between-family differences in care provision. How much variation exists between families in relation to within families, and can we understand the source of between-family differences?

Within- and Between-Family Differences

Research on within-family differences in intergenerational exchange has generally found that individual characteristics, such as gender, marital and parent status, income, and need, affected choice of both donor and recipient (Chesley & Poppie 2009; Davey et al., 2009; Fingerman et al., 2009; Henretta et al., 1997; Hogan, Eggebeen, & Clogg, 1993; McGarry & Schoeni, 1997; Sutor et al., 2007; Wolf, Freedman, & Soldo, 1997). Family characteristics, such as size and composition, have often been examined in such endeavors but seldom have been seen in a broader context of a family environment defining each family's variant on the norms of kinship (Seltzer et al., 2005).

Yet there are strong theoretical reasons for examining differences between families, as intergenerational relations and transfers occur in a group context. Mauss (1954) was the first to consider how dyadic exchanges sustained small groups by building bonds of reciprocity. Homans (1974) elaborated on Mauss's work in his treatise *Social Exchange* and argued that all interaction involved exchange of valued goods or services, and group structure and relationships were built from those social interactions. The desire of both donor and recipient to continue their participation in the small group enforced this system of self-interest. Nonreciprocity endangered the dyadic bond of value to the recipient and invited sanctions (Curran, 2002; Fehr & Gächter, 2002).

As long as exchange was understood to involve only dyadic obligations, however, social exchange theory was a poor fit to the complexities of transfer systems (Ekah, 1974). Beginning with the work of Lévi-Strauss (1969), and continuing with modifications up to the current work of Molm and Cook (1995), Bearman (1997), and Lawler, Thye, and Yoon (2000), sociologists explored the implications and utility of generalized exchange. Generalized exchange requires a minimum of three participants who engage in two seemingly unilateral exchanges that satisfy the condition of indirect, or serial, reciprocity (A to B; B to C). In this example, generalized exchange consists of two distinct dyadic exchanges, either of which could be misinterpreted if not located in a broad family context spanning two or more periods.

Generalized exchange theory suggests a behavioral strategy for identifying families with strong norms of intergenerational obligation. Other things being equal, we would expect families with dense transfer histories to have stronger norms of reciprocity and more robust transfer networks in the present. Transfers need not be directly observed to reinforce bonds among kin. Retelling family stories of help given and help received in the past may also have inculcated younger members of a family with distinct family norms and expectations of assistance (Jellal & Wolff, 2002; Ribar & Wilhelm, 2006). Generalized exchange may have special relevance in populations, such as that of the United States, where family structures are primarily vertical, with few lateral extensions, and a large proportion of kin groups contain three or more generations—the beanpole family (Bengtson, Rosenthal, & Burton, 1996; Wolf, 1994).

A different exchange process, which may be mistaken for generalized exchange, may create differences in a family. Stark (1995) and Cox (1987) argued that a demonstration or

imitation effect—when children observed parents helping a grandparent—may be a mechanism by which children learn and value intergenerational transfers. In contrast to models of generalized exchange or standard models of altruism or exchange, the demonstration hypothesis argues that parents of young children are deliberately strategic in modeling the behavior they wish to see their children replicate at a future time (Cox & Stark, 2005). Although unmarried children were more likely to provide care (e.g., Wolf et al., 1997), demonstration implied that, controlling for marital status, those without children were less likely to provide care. In contrast to this highly focused strategic motive, generalized exchange anticipates that evidence of the presence and strength of a family culture differentiating among families is both diffuse in transfer type and participants as well as dense in cross-generational linkage.

Family structure or composition is a likely source of between-family differences that alter the behavior of individual children. Family size and composition are aspects of extended families that are the same for all family members of a given generation at a point in time. Previous work has shown that a child in a large family is less likely than one from a smaller family to have received help from a parent (McGarry & Schoeni, 1995, 1997) or to have given help to a parent (Spitze & Logan, 1990). Although larger families also provided more intense parental care (Wolf et al., 1997), large sibships increased the probability that at least one sibling would not provide care or assistance of any kind. Family composition, such as whether a family has a female child in the sibship, also taps an important dimension of between-family differences as well as the within-family allocation of care tasks because the presence of female children is likely to affect the behavior of all family members.

Race and ethnicity are important sources of between-family differences and have been a regular feature of intergenerational transfer models, particularly in U.S. research. The variables proxy a host of social and cultural features that may strengthen affective bonds among kin and the quality of family relationships. Early descriptive analyses suggested that intergenerational transfers were more common in minority families than in non-Hispanic White families. But evidence from more recent research has suggested more complexity, with results varying by treatment of family size, structure, and measures of resources and needs. Wong, Kitayama, and Soldo (1999) found between-family differences—that is, a correlation in the behavior of family members—in the tendency of adult children to provide care in non-Hispanic White and African American families, which indicates a need to estimate between-family differences. Ethnic differences may also have arisen as new migrants transplanted or reconstituted family-centered cultures characterized by strong multigenerational support systems (Balcazar & Qian, 2000).

The above discussion develops three expected outcomes that may account for between-family differences in care provision: generalized exchange, family composition, and ethnicity. In addition, we consider two processes that may produce differences between children in a family: restricted dyadic exchange and demonstration. We hypothesize that each of the following processes affects care provision:

1. A family history of transfers by past generations increases the probability of help provision in the current generations, thus producing differences between families (generalized exchange).
2. The demographic composition of the sibship—that is, the proportion of children in the family with a particular characteristic—affects the helping behavior of all children in the family, thus producing differences between families (family composition).
3. U.S. minority groups are more likely to provide parent care than are non-Hispanic Whites, thus producing differences between families (ethnicity).

4. Children who have children, controlling for marital status, are more likely to provide parent care, thus producing within-family differences (i.e., among the children of a mother; demonstration).
5. Previous parent-to-child transfers will increase the probability of a child-to-parent transfer in the same dyad, thus producing differences among the children of a mother (restricted dyadic exchange).

Method

Data for the analysis are drawn from the Asset and Health Dynamics Among the Oldest Old (AHEAD) cohort, one of five component cohorts in the larger Health and Retirement Study (HRS). Respondents in the AHEAD cohort were born before 1924 and were interviewed beginning in 1993. The analysis reported below uses data over four intervals: 1995–1998, 1998–2000, 2000–2002, and 2002–2004. The outcome measure, provision of time or money help to the parent, was measured at the end of the interval listed and covariates were generally measured at the beginning of the interval. Because the outcome was measured in the ending year, we used the ending year as the label for the interval. Interview content changed somewhat in the earlier survey years, and we omitted the 1993–1995 interval so that all variables for our analysis were included in the survey. Use of four intervals allows for the episodic nature of transfers between children and parents by observing transfers over a long period, thereby reducing measurement error. Data were provided by the elderly respondent, not the child, with the exception of proxy interviews with next of kin after a respondent's death. The analysis presented below is restricted to families in which the elderly mother was unmarried at her first interview. We limited the analysis in this way because spouses, not children, are the primary helpers of married elders; we limited it to women because there are many more unmarried older women than men, and the link between unmarried men, particularly divorced men in this cohort, and their children is problematic.

The unit of analysis is the mother–child dyad in one wave. Our final sample is 16,719 child observations drawn from 5,607 different children in 1,925 families. We began sample construction with the 2,540 unmarried women in the AHEAD cohort who were observed at least once in the period 1998–2004. Reflecting the relatively high level of childlessness in this cohort, 1,984 participants, or only about 78% percent, were linked to a living child or stepchild. After deletion of observations with missing data, there were 1,925 different mothers, or 97% of all mothers. Among these mothers, 51% died over the period of observation; among survivors, 80% participated in all four waves. The behavior of each child was observed at each wave the child is listed. There are 18,399 observations on children. The design of our analysis used lagged variables as covariates. For example, an observation must have been available in both 1995 and 1998 to be included in that interval. After deletion of observations with missing data, there were 16,719 child-wave observations, 91% of the original number. Because mothers die, leave for other reasons, or return to the study, not all children were observed at four intervals. Table 1 provides a frequency of the number of times each child was observed. Our analysis method uses data from the intervals when a child is present.

Outcome Measure

The response variable is a binary indicator of whether a child assists his or her mother either by providing financial help or assistance with activities of daily living (ADL) or instrumental activities of daily living (IADL) tasks. Help by a child includes help from that child's spouse and children. The ADL items measure help with five basic activities, including dressing, walking, bathing, eating, getting in and out of bed, and using a toilet.

The IADL items measure assistance with five household activities resulting from a health limitation, including preparing meals, grocery shopping, using a telephone, taking medication, and managing money. Financial assistance includes direct unrestricted financial transfers to the parent, payment for health-care expenses, and direct payments to paid helpers or providers. The ADL and IADL questions refer to the present time for living respondents and for the three months before death for the deceased. Money help is measured over the entire interval.

Because provision of direct care and paying for such care may substitute for each other and our goal is to estimate the probability of an intergenerational transfer, we combined the two measures. In contrast, Lin (2008) argued that the two types of transfer outcomes should be treated separately because they had different predictors. Treating transfer types separately addresses the question of which individual characteristics are associated with a child choosing one or another transfer medium, but it obscures the relationship between family characteristics and provision of any one of multiple transfer types. In addition, money transfers—either to the parent or through direct payment of care—are relatively rare. In these data, only 3% of observations involve money or combined money and time.

Mother's Characteristics

There are four characteristics of the elderly mother. First is self-rated health, with five categories: excellent (the reference category), very good, good, fair, and poor. Self-rated health is a particularly useful measure because it has predicted mortality beyond the effects of other health-status measures (Idler & Benyamini, 1997) and has had a similar correlation to education and income as disability measures (Wilson, 2001). It measures change over time in general health, an important factor influencing need for help. Second is age, coded in 5-year categories with ages 75–79 as the reference category. We chose the reference category of mother's age of 75–79 because of the small number of observations in the youngest category, the group age 70–74. This measures age-related increases in need. Third is net worth, coded in seven categories: negative; 0; \$.01–\$24,999; \$25,000–\$49,999; \$50,000–\$99,999; \$100,000–\$249,999 (the reference category); and more than \$250,000. We chose the reference category as the most common category. We included the variable as a measure of mother's economic resources, a factor that may reduce children's help provision. The fourth characteristic is final illness, a binary indicator of the respondent's death since the last interview. Final illnesses often increase need for help. Although all other mother's characteristics were measured at beginning of the interval, final illness was an event in the interval.

Child Characteristics

Characteristics of each child include gender, marital status, and stepchild status. Previous research has shown the first two to produce differences in helping behavior of children in the family. We included stepchild status because increasing numbers of U.S. families are blended families (Sweeney, 2010). We also included child attended college, as an indicator of financial differences among adult children; child has own children, to assess potential demonstration motives; and two measures of restricted dyadic exchange to assess exchange motives: whether the mother raised a child of this adult child for a year or more and whether the child received from his or her mother and/or parents \$5,000 or more in financial help in the 10 years preceding 1993. Children's characteristics were measured at the beginning of each interval.

Family Context

We included three classes of measures of family context: family composition, ethnicity, and the family history of transfers in an earlier generation. Family composition consists of the

aggregated characteristics of the children in the family at the beginning of the interval. They indicate the proportion of children in the family who are married, are male, are stepchildren, have children, and attended college. In addition, we included a categorical measure of the number of children in the family. We included these variables to estimate the compositional effect we hypothesized.

Ethnicity was reported by the mother and measured in four categories: non-Hispanic White, non-Hispanic Black, Hispanic, and other. We included it to measure the ethnicity hypothesis.

As an indicator of significant intergenerational transfers in previous generations, we included financial help from kin, based on the following question asked of the mother: “Before age 16, was there a time when you or your family received help from relatives because of financial difficulties?” This question was asked in 1998 for both living and deceased proxy interviews.

Model Specification

We modeled care provision using a multilevel logistic regression model in which we had multiple observations on each child’s help to the mother and multiple children in each family. In contrast to a standard regression model with one random error term that captures all the variance in the outcome that is unexplained by the model, a multilevel model divides the residual into three components or levels, capturing variation within each child over the waves of the study, variation within the family (i.e., between different children within a family), and variation between families. This division accomplishes two tasks. First, it correctly adjusts for the clustering in the data. The multiple observations on each child and multiple children in a family are not independent of each other; the model allows for this nonindependence (Goldstein, Browne, & Rasbash, 2002; Goldstein, Rasbash, Browne, Woodhouse, & Poulain, 2000). Second, dividing errors into different levels allows for interpretation of the degree to which children in a family are similar to each other, controlling for other variables in the model. We later describe how the third-level variance, the between-family variance, estimates a family effect—that is, it measures the level of similarity in the behavior of siblings that is unexplained by the model.

The model is more formally described using the baseline variance components model separating variability in the binary response Y into three levels defined as follows:

$$\pi_{ijk} = P(Y_{ijk} = 1) \text{ with logit } \pi_{ijk} = B_{jk} \quad (1a)$$

$$B_{jk} = \delta_k + u_{jk} \quad (1b)$$

$$\delta_k = \phi_0 + v_k \quad (1c)$$

where the subscript i refers to repeated observations of each child’s provision of help, j indexes children in a family, and k indexes families. Level 1 concerns within-child variability (i.e., the probability a child helps) with the random coefficient (B_{jk}) producing a correlation among observations on a child across waves. Level 2 (Eq. 1b) concerns child-to-child variability in a family. The child effect, B_{jk} , equals a family effect (δ_k) plus an error term for each child (u_{jk}). The family effect produces the correlation between children in a family. In the model shown, the within-child correlation and the correlation between children in the same family were assumed to be positive. Level 3 (Eq. 1c) describes variation between families equal to a constant (ϕ_0) plus an error term for each family (v_k).

Combining Equations 1a–1c, the full model for the distribution of the binary response Y can be expressed as follows:

$$\text{logit } \pi_{ijk} = \phi_0 + (u_{jk} + v_k) \quad (2)$$

Covariates measured at each level are generally added to the model. The variance of u_{jk} is the within-family variance, and the variance of v_k is the between-family variance. In the multilevel logit model, the variance at Level 1 was not directly estimated but was estimated as described later. Because the behavior of an individual child in a family is conditional on the family context ($\phi_0 + v_k$) as well as the child's own unique element (u_{jk}), this is a subject-specific model (Rabe-Hesketh & Skrondal, 2005), consistent with the concept that an adult child's behavior occurs in a specific family context.

Estimation results for multilevel models with a binary outcome vary by the estimation method used (Guo & Zhao, 2000). The models presented in this article are maximum-likelihood (ML) estimates and were derived using the generalized linear latent and mixed models (GLLAMM) adaptive quadrature procedure in STATA (Rabe-Hesketh, Skrondal, & Pickles, 2004, 2005). Guo and Zhao (2000) treat ML estimates as the standard for comparing approximation methods that are computationally more efficient.

Results

Table 1 presents basic statistics on the multiple observations on children used in the analysis. A child provided help in 18.3% of observations. As the next set of variables show, almost all help was time help only. The remainder of the variables are separated into three groups: child's characteristics, mother's characteristics, and family characteristics. Of the observations, 3.6% were of stepchildren, and the overwhelming majority were married with children. Under mother's characteristics, 15.6% of observations were ones in which the mother had died in the interval. Among family characteristics, slightly more than 8% of observations are ones in which the respondent's family received help when the mother was growing up.

The bottom part of Table 1 reports the number of observations. Mothers were observed an average of 8.5 times, reflecting both the number of waves in which she was observed and her number of children. Half of children were observed in all four intervals, with the remainder distributed almost evenly across one, two, and three times.

Table 2 presents four multilevel models. We organize the discussion by considering each variable across the four equations. Model 1 presents a simple model that includes only a set of indicators for the year observed and ethnicity, Model 2 adds mother's characteristics, Model 3 adds child's characteristics, and Model 4 adds family characteristics.

In Model 1, year of observation indicates an increased probability of help in later years as mothers grow older. The significant effects were reduced and eventually eliminated as additional covariates were added to the model, with adjustments for mother's changing characteristics being the most important. Each child is less likely to help in Hispanic families than in non-Hispanic White families. This difference disappears in the last model shown. Additional analyses indicated that family size was responsible for the nonsignificance of the Hispanic result in Model 4: An individual child is less likely to help in larger families, and Hispanic families have a larger average size.

Model 2 adds mother's characteristics. Poorer health and advanced age are associated with a higher probability of receiving help. Level of mother's assets has virtually no association

with provision of help. Mother's final illness is strongly associated with provision of help, with an effect roughly equal to the difference between a mother age 75–79 and a mother older than age 90. These coefficients remained significant after other covariates are included in later models.

Model 3 added children's characteristics, and Model 4 added family characteristics, except for ethnicity. The coefficients for children's variables indicate their effects in the family. In Model 3, within a family, sons, married children, and stepchildren are less likely to provide help, and those who attended college are more likely to help. Married and college attendance are no longer significant in Model 4, and sons, stepchildren, and those with children were even less likely to provide help than in Model 3. The reason for this change is the inclusion of aggregate family characteristics. In a family, a child is more likely to help when a high proportion of children in the family are male, are stepchildren, and have children. Restated, the more children in a family who have a characteristic that reduces the individual child's probability to provide help, the more likely children are to help. The global log-likelihood test for including an interaction of each family characteristic with the parallel individual characteristic was not quite significant ($\chi^2 = 10.5$, 5 degrees of freedom [df]). Hence there is not evidence to reject the null hypothesis that these effects are the same whether or not the child has the characteristic. This means that all children adjust their effort according to the composition of the sibling group. For example, both sons and daughters are more likely to help when a higher proportion are sons. Family size has its expected effect. The larger the family, the less likely any one child is to help.

There is a positive association between the mother's report that her family received financial help when she was growing up and the probability a child helps her now. The point estimate indicates that help in an earlier generation raises the odds of receiving help by 1.8 times over families without such a history. This effect is slightly larger than the average effect of the mother's being 5 years older.

The model divides residual variance into three components, and the statistics reported at the bottom of Table 2 present the variance estimates for the second and third levels. Because the multilevel logit model does not provide a direct estimate of first-level variance, it is estimated, using the threshold model (Goldstein, Browne et al., 2002; Snijders & Bosker, 1999), at 3.29. The estimated total variance is the sum of the variance at all three levels. The data allow for the calculation of between-family variance as a percentage of total variance. This statistic estimates the variance due to family membership; that is, the extent to which siblings in a family are similar to each other, net of covariates in the model. It is the same as the residual intraclass correlation (Snijders & Bosker, 1999). In Model 1, family membership accounts for 29.3% of the total unexplained variance. Model 2, which includes mother's characteristics, results in a substantial reduction to 17.9%, which indicates that mother's characteristics are an important reason families differ from each other. Model 3, which adds each child's individual characteristics, reduces the total variance by reducing the child-level variance and leaving the residual intraclass correlation slightly higher. This pattern is expected because Model 3 adds the individual child's characteristics. Model 4, which adds family composition and history, reduces family-level variance to 13.5% of total residual variance. Virtually all the reduction from Model 3 results from inclusion of family composition, not the history of transfers in a previous generation. Comparing Models 1 and 4, the combination of mother's characteristics, family composition, and family history reduces unexplained similarities between siblings in a family by about half.

Probabilities of Providing Help

Table 3 presents predicted probabilities of providing help derived from Model 4 in Table 2 for a child and family with random effects equal to 0. The rows of the table define various

situations that vary by the gender, marital status, and stepchild status of the individual child and the size and gender distribution of the sibship. Columns differentiate mothers who experienced their final illness in the interval. The first row provides estimates for a modal observation using common characteristics on each variable. We defined this modal group as a married biological daughter in 2000 who did not attend college, had children, did not receive \$5,000 or more in the past, and whose mother did not raise a child of this child. The child has two siblings, one male and one female. We assumed that one of her siblings was married, one had children, one attended college, and both siblings were biological children. The mother was in fair health, aged 75–79, holding net worth between \$1,000 and \$24,999, and non-Hispanic White. Her family did not receive help while she was growing up. Random effects equal 0.

Examining the modal situation, a final illness more than triples the probability that the child will help. Differences among rows reflect both the individual child's characteristics and the sibship characteristics. Within a family, daughters are much more likely to provide care than sons, and stepchildren are much less likely to provide care. Composition of the sibship is also important. An only child has a much greater probability of providing care, and those with two female sibs have the lowest probability. Results in Table 3 indicated that a certain sibship configuration had the same effect regardless of the child's individual characteristics. This finding is illustrated by comparing male and female biological children with two male siblings compared to two female siblings. For both males and females, having two male siblings instead of two female siblings increases the probability of providing help by about 1.75 times.

Discussion

This article proposes a framework for examining care provision and illustrates the conceptual approach with an analysis of children's help to their unmarried mothers. We began by suggesting the importance of examining between-family differences in transfers as well as within-family differences. Families differ in their propensity to help, and individuals in families differ from each other. In our analysis, we separate the two types of variation and examine the degree to which we can explain the differences between families. In Model 1 with exogenous variables, we found significant between-family variation in provision of care. Across models, a substantial proportion of between-family variation resulted from the characteristics of the elderly mother added in Model 2, primarily her health, and from the composition of the option set of potential child providers of care and the past history of family transfers, both added in Model 4. Individual child characteristics, as is reasonable to expect, primarily address within-family variance (i.e., differences among children in a family) when they were added in Model 3. Across the models presented, between-family differences were reduced by about half, but the residual unexplained between-family differences remained substantial.

A review of our hypotheses summarizes the degree to which we were able to account for between-family differences. First, a central result concerns the effects of the family history of exchanges. We found that the elderly unmarried mother's report of financial help given to her family by an earlier generation while she was growing up significantly increases the probability that a given child will provide ADL, IADL, or financial help to her (Hypothesis 1: generalized exchange). The effects are substantial in size, as Table 3 shows. The analysis provides evidence that a dense history of family transfers is associated with the level of current transfers. In this sense, a family culture of providing help persists over generations. Given the central role of women in this cohort in raising children and as lifelong kin keepers, the transmission of family culture from mother to child might well be expected to be strong. An alternative to our interpretation is that reports reflect selective or false

memories influenced by recent or current family events. The interview situation should have minimized the conflation of current help-receipt reports and the response to the questions. Questions about family history were asked in the early part of the 1998 interview well before respondents were asked about current receipt of help.

Second, the results advance understanding of the combined role of individual child characteristics and family composition by considering how a child's individual characteristics and the characteristics of the sibship both affect exchange (Hypothesis 2: composition). Regardless of the child's own characteristics, a family structure that provides fewer alternative care providers is associated with greater probability that each child in a family will provide care. Small family size, a high proportion of male children, or a high proportion of stepchildren are indicative of fewer care providers and lead to increased probability that children, regardless of their individual characteristics, will provide assistance.

Family composition is likely to be a more important dimension of between-family differences in contemporary cohorts in North America and Europe because low fertility increases variance in family composition. That is, smaller families are less likely to include a female child, and stepchildren are likely to be a higher proportion of the children in families in which they are present.

Third, the results address ethnic differences in provision of help (Hypothesis 3: ethnicity). We found that each Hispanic child was less likely to provide assistance, but the lower probability was a function of family size. In this analysis, ethnic differences resulted from the demographic composition of families, not from ethnic differences in the propensity to help.

Finally, we found null results for the two exchange processes hypothesized to produce within-family differences (Hypotheses 4 and 5: demonstration and restricted dyadic exchange). The indicator of a demonstration motive, having one's own children, was negatively associated with provision of help. When extensive care was required, the task was allocated to children without children, the opposite of what the demonstration hypothesis predicted. In addition, we found no evidence of restricted dyadic exchange. Within a family, an elderly mother who had raised one of her children's children or had given a child \$5,000 in the previous 10 years before 1993 was no more likely to receive care from that child. Of course, each of the transfers may have already been reciprocated in other ways, and other research (e.g., Henretta et al., 1997) has found evidence for dyadic exchange.

The analysis illustrates the usefulness of the between- and within-family distinction in understanding intergenerational transfers. It is possible to differentiate the factors that lead children in a family to act in a similar way and those that differentiate behavior in the family. Future research can usefully build on this insight.

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Table 1Characteristics of Mother–Child Dyads: Descriptive Statistics ($N = 16,719$)

Variables	Percentage
Outcome Measures	
Give help	
Money or time	18.3
Money $\times$ Time	
Money only	1.6
Time only	15.3
Both	1.5
Neither	81.7
Year Observed	
1998	32.1
2000	27.4
2002	22.7
2004	17.8
Child's characteristics	
Male	48.9
Married	70.8
Mother raised a child	3.1
Step relationship	3.6
Child has children	84.5
Child received \$5000	9.6
Child attended college	47.2
Mother's characteristics	
Health	
Excellent	7.0
Very good	23.2
Good	30.6
Fair	24.5
Poor	15.7
Age	
70–74	6.2
75–79	26.1
80–84	32.6
85–89	22.2
90+	13.0
Mother died since last interview	15.6
Net worth (vs. \$100,000–\$249,999)	
Negative	1.8
0	7.7
.01–24,999	22.2
25,000–49,999	12.1

Variables	Percentage
50,000–99,999	18.1
100,000–249,000	22.4
250,000+	15.6
Family characteristics	
Proportion in family	
Male	48.8
Married	70.6
Step	4.4
Has children	85.5
Attended college	47.2
Children in family	
1	7.2
2	20.3
3	21.0
4	17.4
5–6	18.7
7 or more	15.4
Ethnicity	
White	83.4
Black	9.6
Hispanic	5.8
Other	1.2
R's family received help	
No	89.2
Yes	8.2
Missing	2.6
Number of observations	
Child-years	16,719
Children	5,607
Mothers	1,925
No. times mother observed (mean)	8.5
No. times child observed (%)	
1	18.0
2	15.4
3	16.4
4	50.3

Table 2

Multilevel Logistic Regression Results Predicting a Child's Provision of Money or Time Assistance to an Elderly Mother ($N=16,719$)

	1		2		3		4	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Ethnicity								
Black, non-Hispanic	0.121	0.191	0.129	0.160	0.092	0.163	0.162	0.157
Hispanic	-0.643	0.268 *	-0.511	0.222 *	-0.446	0.222 *	-0.165	0.207
Other	0.601	0.662	0.607	0.541	0.522	0.537	0.459	0.498
Mother's characteristics								
Health (vs. excellent)								
Very good			-0.093	0.176	-0.078	0.17	-0.105	0.173
Good			0.410	0.173 *	0.454	0.173 **	0.420	0.169 *
Fair			0.700	0.177 **	0.724	0.177 **	0.701	0.173 **
Poor			0.837	0.186 **	0.856	0.187 **	0.867	0.182 **
Age (vs. 75-79)								
70-74			-0.626	0.179 **	-0.629	0.179 **	-0.552	0.177 **
80-84			0.536	0.098 **	0.559	0.098 **	0.482	0.096 **
85-89			1.043	0.128 **	1.081	0.128 **	0.928	0.123 **
90+			1.437	0.163 **	1.472	0.163 **	1.213	0.156 **
Assets, \$ (vs. 100,000-249,000)								
Negative			-0.277	0.258	-0.255	0.260	-0.336	0.258
0			-0.009	0.153	0.031	0.154	0.004	0.151
.01-24,999			-0.012	0.119	0.037	0.120	0.070	0.118
25,000-49,999			0.141	0.129	0.178	0.130	0.234	0.128
50,000-99,999			0.138	0.113	0.157	0.113	0.171	0.111
250,000+			-0.166	0.139	-0.164	0.140	-0.184	0.137
Final illness			1.386	0.089 **	1.394	0.090 **	1.411	0.088 **
Child characteristics								
Male					-1.172	0.101 **	-1.435	0.118 **
Married					-0.200	0.099 *	-0.179	0.119
Stepchild					-3.070	0.404 **	-3.574	0.503 **

	1		2		3		4	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
Has children								
Attended college					-0.245	0.129	-0.414	0.154 **
Parent to child help					0.281	0.098 **	0.183	0.142
Raised a child					0.317	0.255	0.154	0.250
\$5,000 in past 10 yrs.					0.018	0.192	-0.205	0.184
Family composition								
Family size								
2							-1.052	0.181 **
3							-1.538	0.187 **
4							-1.967	0.201 **
5-6							-2.508	0.207 **
7+							-2.521	0.224 **
% children who								
Are male							0.946	0.203 **
Are married							-0.051	0.202
Are a stepchild							0.940	0.478 *
Have children							0.464	0.236 *
Attended college							-0.136	0.192
R's family received help (vs. no)								
Yes							0.595	0.187 **
Missing							1.300	0.290 **
Year (vs. 1998)								
2000	0.367	0.079 **	-0.192	0.084 *	-0.203	0.084 *	-0.152	0.084
2002	0.904	0.086 **	-0.037	0.094	-0.053	0.094	0.019	0.092
2004	1.304	0.095 **	0.018	0.109	-0.012	0.109	0.072	0.106
Constant	-3.093	0.111 **	-3.908	0.209 **	-3.118	0.245 **	-2.027	0.317 **
Child level variance	5.391	0.403 **	4.922	0.351 **	4.483	0.330 **	4.380	0.318 **
Family level variance	3.593	0.379 **	1.787	0.229 **	1.857	0.232 **	1.199	0.179 **
Family level variance as % of total variance ^a	29.3%		17.9%		19.3%		13.5%	

	1		2		3		4	
	Coeff.	SE	Coeff.	SE	Coeff.	SE	Coeff.	SE
-2L	-6,629.6		-6,378.6		-6,147.7		-6,133.2	

Note. SE = standard error.

^aTotal unexplained variance in each model equals child-level variance + family-level variance + 3.29 (i.e., the estimated amount of Level 1 variance that results from multiple observations on each child) and is estimated via a threshold model (Goldstein, Browne, & Rasbash, 2002; Snijders & Bosker, 1999). Family-level variance as a portion of total variance is the residual intraclass correlation (Snijders & Bosker, 1999) measuring the degree of similarity between siblings net of covariates in the model.

*
 $p < .05$.
**
 $p < .01$.

Table 3

Predicted Probability of Providing Assistance to an Elderly Mother Derived From Table 2, Equation 4 ($N=16719$)

	Not Final Illness (%)	Final Illness (%)
Modal situation ^a	4.8	17.0
Male married biological child		
Only child	11.1	33.9
Two male sibs only	2.1	8.4
Two female sibs only	1.2	4.7
Female married biological child		
Only child	17.0	45.6
Two male sibs only	6.5	22.1
Two female sibs only	3.5	13.0
Female married step child		
Only child	1.4	5.7
Two male sibs only	0.3	1.1
Two female sibs only	0.1	0.6

^aThe modal situation is a married daughter. She is a biological child, has children, did not attend college, did not receive \$5,000 or more, and her mother did not raise one of her children. The mother is in fair health, aged 75–79, has a net worth between \$1 and \$24,999, was observed in 2000, and is non-Hispanic White, and her family was not helped when she was growing up. The daughter has two siblings, one male and one female. One of the siblings is married, one has children, one attended college, and all are biological children. The child and family are assumed to have random effects equal to 0.