

# Agreement Between Aging Parent's Bequest Intention and Middle-Aged Child's Inheritance Expectation

Kyungmin Kim, PhD, \*,<sup>1</sup> David J. Eggebeen, PhD,<sup>1</sup> Steven H. Zarit, PhD,<sup>1</sup>  
Kira S. Birditt, PhD,<sup>2</sup> and Karen L. Fingerman, PhD<sup>3</sup>

<sup>1</sup>Department of Human Development and Family Studies, The Pennsylvania State University, University Park.

<sup>2</sup>Institute for Social Research, University of Michigan, Ann Arbor.

<sup>3</sup>Department of Human Development and Family Sciences, University of Texas, Austin.

\*Address correspondence to Kyungmin Kim, PhD, Department of Human Development and Family Studies, The Pennsylvania State University, 101 Beecher Dock House, University Park, PA 16802. E-mail: [kxk947@psu.edu](mailto:kxk947@psu.edu)

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**Purpose:** This study investigated discrepancies in expectations of aging parents and their middle-aged offspring regarding future inheritances. **Methods:** Data from 327 older parent–adult child dyads were analyzed. Using multilevel models, we examined factors (e.g., economic resources, family characteristics, current support exchanges, and beliefs about family obligation) associated with expectations of inheritance. We also explored patterns of correspondence in expectations over inheritance within dyads and what factors are associated with these patterns. **Results:** We found a significant generational difference in expectations of inheritance, with children less likely to expect inheritances than parents expected to give. Parent's income, number of siblings, and support currently given to children were significantly associated with both parents' and children's positive expectations of inheritance. The effects of child's income, support given to parent, and parent's gender on inheritance expectations differed between parents and children. Compared with discordant dyads (parents intended to leave a bequest, but their child did not expect an inheritance), correspondent dyads (both parents and children expected a bequest) showed higher income of parents and children, more support given to the child, and lower levels of

child's filial obligation. **Implications:** Although bequest decisions are circumscribed by parent's financial resources, our findings suggest that they are also a continuation of established patterns of exchanges. Parents and children form their intention or expectation about inheritance based on different factors, leaving open the possibility of misunderstandings between the generations.

*Key Words:* Inheritance, Dyadic correspondence, Parent–child relationships, Support exchanges

Significant attention has been given in recent years to intergenerational support between aging parents and their adult children, but family scholars and gerontologists have largely overlooked the “final” transfer between generations—*inheritance*. The economic literature has long studied material transfers among adult family generations through inter-vivos gifts and inheritance, focusing on the mechanism generating or maintaining social inequality of wealth (Arrondel & Masson, 2006; Laitner, 1979; Menchik, 1980). Although inheritance is executed after the death of the parent, decisions regarding inheritance can impact the lives of family members economically and

psychologically both before and after the person's death (Angel & Mudrazija, 2011; Sousa, Silva, Santos, & Patrão, 2010). Aging parents usually have made plans for bequests in advance, and their adult children also form their own expectations of receiving an inheritance. These implicit and explicit expectations of family members surrounding inheritance may influence decisions about support exchanges and relationship outcomes between generations, especially in aging families (Caputo, 2005).

Despite the importance of multiple perspectives among family members in transfer decisions (Davey, Janke, & Savla, 2004), the investigation of bequest behaviors has mainly considered the aging parents' perspective (McGarry, 1999). The few studies considering adult children have examined separately the correlates of parents' bequest decisions and children's inheritance expectations (Kao, Hong, & Widdows, 1997; Künemund, Motel-Klingebiel, & Kohli, 2005). Moreover, there is little empirical work on whether children's expectations of inheritance are in agreement with their parents' plans for bequests and whether children understand parental motives behind the bequest intentions. Under some circumstances, discrepancies in views on inheritance between parents and children could lead to family conflict and affect current exchanges and relationships (Stum, 2000).

This study extends the investigation of inheritance by incorporating perspectives from both parents and their children. In this study, we used data obtained from 327 dyads of aging parents (aged 59–96 years) and middle-aged children (aged 40–60 years) about their expectations regarding inheritance, including the parent's intention to leave a bequest and the child's expectations of receiving an inheritance. First, we investigated factors associated with expectations of inheritance reported by parents and their offspring as well as whether the effects of these factors differed between parents and children. Second, we looked specifically at whether expectations about inheritances are in agreement within parent–child dyads and examined the correlates of correspondence patterns.

### *Theories on Bequest Motives*

Most of the economic literature on inheritance has examined motivations of older parents to leave bequests to their children, based on two competing explanations: altruism and exchange–strategic

models (Arrondel & Masson, 2006). The *altruism model* assumes parental affection, moral duty, or obligation as a basis for providing help in situations of need (Becker, 1991). Based on altruism theory, parents would be expected to leave the largest bequests to the least well-off children. Thus, studies that examine parental motivations of bequests have focused on variables regarding children's financial status, such as income, education, and assets (Altonji, Hayashi, & Kotlikoff, 2002; Wilhelm, 1996).

In contrast, *exchange models* emphasize self-interest motives to maximize personal rewards and minimize personal costs even in relationships with significant others, including family members (Cox & Rank, 1992). According to this model, bequests represent payments for assistance and attention received from children. Parents may use the prospect of future bequests to induce their children to provide care to them when they are old and to have some control over the behavior of their offspring (Bernheim, Shleifer, Summers, 1985; Kotlikoff & Morris, 1989). Therefore, the exchange model has focused on examining associations between bequests and child-to-parent inter-vivos transfers, usually social support, including care and housing (Izuhara, 2008).

However, empirical work on bequests has failed to provide evidence supporting either altruistic or exchange models. Inter-vivos transfers (as occurring while the parents are alive) are more likely to be given to less well-off children, which is consistent with the altruistic model (McGarry & Schoeni, 1997). By contrast, in contemporary western societies, bequests tend to be divided in equal shares among children, regardless of children's income or informal support from children (McGarry, 1999; Norton & van Houtven, 2006; Perozek, 1999; Wilhelm, 1996). Thus, it appears that the economic models provide limited predictability of bequest behaviors.

### *Factors Associated With Expectations on Bequest or Inheritance*

This study focuses on family member's expectations about inheritance and factors associated with these expectations. In examining bequest motives, prior studies have indicated usefulness of “subjective” measures of expected bequests (Hurd & Smith, 2001; McGarry, 1999). Investigations based on “actual” bequests often confound a wide range of measurement errors in

estimating the amount of bequests as well as results by unintended (accidental) bequests, which may mask individuals' original motives behind bequest plans (Hurd, 2003).

Individuals' motives for bequests may reflect both their children's needs (altruism) and their own desire for support while alive (exchange theory). Drawing on the two competing theories and previous work on bequest motives, we considered four sets of factors: (a) economic resources, (b) family characteristics, (c) current support exchanges, and (d) beliefs about family obligation. We considered these factors with regard to both the parent's and the child's perspective.

*Economic Resources.*—The financial circumstances of family members may be the main factor in shaping parents' and children's expectations of bequests because they are directly associated with needs and resources for bequests. Although parental economic resources (e.g., income and wealth) appear to be the most potent and consistent determinant of bequest decisions in a positive direction (Cox & Rank, 1992; McGarry, 1999), effects of children's economic resources on bequests are not clear. Studies found that parents are likely to divide inheritance equally among all children, regardless of their income (Altonji, Hayashi, & Kotlikoff, 1992; McGarry, 1999; Wilhelm, 1996). However, other studies also showed that children's education, as a proxy of socioeconomic status, is positively associated with bequest probability; children with more education are likely to receive more in parental bequests (Kao et al., 1997; McGarry, 1999).

*Family Characteristics.*—We considered effects of two family characteristics (e.g., number of siblings and race) on family members' expectations of a bequest. First, number of siblings appears to have a negative effect on the probability of receiving inter-vivos financial support from parents (Schoeni, 1997). In particular, given that bequests are usually (equally or unequally) divided among siblings, the share of bequest that each child will receive would decrease with the number of siblings as competitors for resources (Hurd, 2003).

In addition, given racial differences in the mode of intergenerational support, family members' expectations of inheritance may differ by race. Prior studies have shown that White families are more likely to exchange financial and emotional support, whereas African and Latino families tend

to be involved in practical assistance and housing support (Berry, 2006; McGarry & Schoeni, 1995). Regarding bequests, Kao and colleagues (1997) found that White adults are more likely to expect an inheritance from their parents than non-Whites. Whether these racial patterns reflect race differences in parental financial resources or cultural differences in preferences or expectations remains an open question (Berry, 2006).

*Current Support Exchanges.*—Studies have often emphasized distinctions between inter-vivos transfer and bequests and analyzed correlates of these two types of family transfers separately. However, *current* support exchanges may influence expectations of an inheritance. Put another way, in forming expectations or plans for bequests, family members may draw on their current patterns of support exchanges (Arrondel & Masson, 2006).

As noted earlier, exchange models suggest that anticipated inheritance can be rewards for support or care provided to older parents by children (i.e., upward exchanges; Bernheim et al., 1985). However, empirical support for this is mixed. From the perspective of offspring, sons' expectations of inheritance were positively associated with social support provided to their parents, whereas daughters' expectations of inheritance were negatively associated with support to parents (Caputo, 2002; Silverstein, Parrott, & Bengtson, 1995). On the part of parents, Caputo (2005) showed that parents who have intentions to leave inheritances to children are more likely to have adult daughters providing informal care to them. However, Norton and van Houtven (2006) reported that support provided by children had no effect on the equality of parent's intended bequest.

Meanwhile, the effects of downward transfers (given to children by parents) on bequest intentions has not received as much attention. McGarry (1999) found that families providing support to their children differed in the predictors of intended bequests from families who were not making inter-vivos transfers. This suggests that current support given to children should be taken into account when examining intended bequests.

*Beliefs on Family Obligation.*—The economic literature often infers motives from the behaviors, ignoring or downplaying cultural and psychological factors as important motives for bequest behaviors. However, norms of responsibility and family

obligation may play an important role in explaining parents' intention and children's expectation for inheritance (Ikkinck, van Tilburg, & Knipscheer, 1999; Kohli & Künemund, 2003). Parental obligation toward offspring often reflects their altruistic affection and attention persisting over time, and filial obligation to provide support to older parents may include child's reciprocation and gratitude for support and affection received from parents when they were young (Silverstein, 2006). Therefore, filial obligations toward parents may preclude adult children from having expectations of future return from parents, though parental obligations toward children may ensure their intention to leave bequests.

**Control Variables.**—We also considered three demographic characteristics of participants (e.g., age, gender, and self-rated health) and geographic distance between dyadic members as controls. Given that issues about inheritance may be more relevant for families in later years, ages of parents and children are likely to influence expectations over inheritance. Gender of parents may also affect expectation of inheritances. It is likely that fathers consider their surviving spouses in making a plan for bequests, due to gender disparities in life expectancy (Clignet, 2009). In addition, expectations of bequests can be affected by parents' health status because family members may consider possible medical and long-term care expenses when older parents are in poor health (Hurd & Smith, 2001). Because proximity constrains provision of certain types of help, we also included geographic distance between parents and children (Fingerman et al., 2011).

In sum, this study takes into account the different perspectives of aging parents and adult children to explore expectations of inheritance within family contexts. Utilizing data from 327 dyads of older parents and their middle-aged children, we investigated what factors are associated with expectations of inheritance reported by parents and children, and if parents' and children's expectations of inheritance are associated with the same or different factors. In addition, we examined how parent's intention and child's expectation about inheritance correspond within dyads and what factors are associated with patterns of dyadic correspondence. Factors to explain inheritance expectations and dyadic concordance patterns included economic resources of parents and children (i.e.,

education and income), family characteristics (i.e., number of siblings and race), current support exchanges between the dyadic members (i.e., upward and downward directions of exchanges), and beliefs about family obligation.

## Methods

### Sample

This analysis is based on data from "The family exchanges study" (Fingerman, Miller, Birditt, & Zarit, 2009). As a first step in the sampling procedure, respondents aged 40–60 years who had at least one living parent and one or more biological children aged more than 18 years were recruited. Potential respondents were randomly selected from phone lists from Genesys Corporation as well as random digit dialing from the Philadelphia Primary Metropolitan Statistical Area. Of the 845 eligible targets, 633 (75%) were interviewed in 2008.

From the original sample of 633 middle-aged adults, 280 (44%) had parents who also agreed to be interviewed. In 223 cases, one parent was interviewed, and in 57 cases, both parents were interviewed, which yielded a total of 337 discrete dyads. In comparison to parents who did not participate ( $n = 541$ ), parents who participated ( $n = 337$ ) were healthier ( $t = 4.80, p < .001$ ), younger ( $t = -3.19, p < .01$ ), and in a better relationship with their child ( $t = 6.19, p < .001$ ).

Because exchanges between the middle-aged child and his or her mother and father were measured separately, we considered each parent–child dyad as a separate unit. The aging parents were asked a set of questions that were identical to those for their children. Excluded were dyads who did not have reports from both dyadic members on our main variable ( $n = 10$ ), so that the final sample was 327 parent–child dyads (individual  $N = 600$ ). Table 1 presents background information of the sample.

### Measures

**Expectation of Inheritance.**—Our dependent variable was expectation of leaving a bequest or receiving an inheritance. Thus, we measured the views of parents and children on the same future event within the family. Older parents answered *yes* or *no* to whether they intend to leave an inheritance for their child. Adult children also answered

**Table 1. Individual and Dyadic Characteristics of Participants**

	Parent			Child			Dyad		
	M	SD	Range	M	SD	Range	M	SD	Range
Age	76.06	6.26	59–96	49.74	4.80	40–60			
Male ( <i>yes</i> = 1)	0.31	0.46	0–1	0.41	0.49	0–1			
Education ( <i>years</i> )	12.69	2.47	0–17	14.14	2.04	9–17			
Household income <sup>a</sup>	3.00	1.30	1–6	4.49	1.37	1–6			
(Re) Married ( <i>yes</i> = 1)	0.48	0.50	0–1	0.73	0.45	0–1			
Self-rated health <sup>b</sup>	3.06	1.12	1–5	3.51	1.03	1–5			
Family obligation <sup>c</sup>	3.79	0.60	1–5	3.94	0.51	2.5–5			
Number of siblings							3.01	1.98	0–11
White ( <i>yes</i> = 1)							0.68	0.47	0–1
Geographic distance ( <i>mile</i> )							244.43	644.04	0–4,000
Downward exchanges <sup>d</sup>							4.00	1.18	1.50–7.17
Upward exchanges <sup>d</sup>							4.25	1.26	1.42–8.00

Notes: Dyad *N* = 327. Individual *N* = 600.

<sup>a</sup>Rated from 1 (<\$10,000) to 6 (>\$100,000).

<sup>b</sup>Rated from 1 (*poor*) to 5 (*excellent*).

<sup>c</sup>Mean of six items rated from 1 (*never*) to 5 (*always*).

<sup>d</sup>Mean of six items rated from 1 (*less than once a year or never*) to 8 (*daily*).

*yes* or *no* to whether they expect to receive an inheritance from their parent (see Table 2).

### Independent Variables

**Economic Resources.**—As indicators of economic resources, we used household income and education of each parent and child. Participants reported household income in 2007 on a 6-point scale ranged from 1 (<\$10,000) to 6 (>\$100,000; McGarry & Schoeni, 1997), and they also provided their years of education.

**Family Characteristics.**—Regarding family characteristics of parent–child dyads, family size was measured by the number of siblings that adult children have. Race was dichotomized: White families were coded 1 and racial minority families were coded 0. The vast majority of these families were African American (78.4%).

**Current Support Exchanges.**—We assessed support that children provided to their parents (i.e., upward exchanges) and support that parents provided to their children (i.e., downward exchanges). Using the Intergenerational Support Scale (ISS; Fingerman et al., 2009), we measured how often participants provided and received six types of support (emotional support, practical assistance, advice, socializing, financial support, and listening

**Table 2. Frequency of Parents' and Children's Expectations on Inheritance**

Child (%) <sup>b</sup>	Parent (%) <sup>a</sup>		Total
	Yes	No	
Yes	138 (42.2)	8 (2.4)	146 (44.6)
No	144 (44.0)	37 (11.3)	181 (55.4)
Total	282 (86.2)	45 (13.8)	327 (100.0)

Notes: <sup>a</sup>Intention of leaving an inheritance for their child.

<sup>b</sup>Expectation of receiving an inheritance from their parent.

to talk about daily events) on an 8-point scale ranged from 1 (*less than once a year or not at all*) to 8 (*daily*). We calculated mean scores across the six types of support. Because we have both children's and parents reports of support exchanged with their dyadic partner, we used average scores of parents' and children's reports to represent each direction of support exchanges between them ( $\alpha = 0.85$  for downward support;  $\alpha = 0.86$  for upward support).

**Family Obligation.**—For norms of family obligation, parents were asked how often parents should provide offspring with six types of support (emotional support, practical assistance, listening to the other's talk, socializing, advice, and financial support), and children indicated how often they thought children should provide such support to their parents. This assessment was based on

approaches used in prior studies (Silverstein, Gans, & Yang, 2006). The answers ranged from 1 (*never*) to 5 (*always*). Means of the six items were computed ( $\alpha = 0.67$  for parents;  $\alpha = 0.79$  for children).

**Control Variables.**—Three demographic characteristics of parents and children (e.g., age, gender, and self-rated health) and geographic distance between dyadic members were included as control variables. Participants provided their chronological age. Gender was coded 1 for *male* and 0 for *female*. Self-rated health for the past 12 months was measured using a 5-point scale ranging from 1 (*poor*) to 5 (*excellent*). Geographic distance between parents' and noncoresident children's residences was measured in miles. To address positive skew of distance, we used a log-linear transformation in the analyses.

### Analysis Plan

**Question 1.**—Dyadic data represents a special case of hierarchically clustered data, with individuals nested within dyads. To account for the interdependence of individuals within each dyad, we used multilevel models (Kenny, Kashy, & Cook, 2006; Sayer & Klute, 2005). Because the dependent variable of this study is a dichotomous variable ( $y_{ij} = 1$  or 0), we employed SAS PROC NLMIXED procedure, which transformed the binary dependent variable into the probability of the response, using a logit link function (Guo & Zhao, 2000):

$$\eta_{ij} = \log \left[ \frac{p_{ij}}{(1 - p_{ij})} \right]$$

where  $p_{ij}$  is the probability of observing the response,  $y_{ij}$  (e.g., expected or not inheritances), and  $\eta_{ij}$  is the log-odds of observing the response. Based on the link function, multilevel models were specified as follows:

$$\text{Level 1: } \eta_{ij} = \beta_{0j} + \beta_{1j} (\text{Generation}_{ij})$$

$$\text{Level 2: } \beta_{0j} = \gamma_{00} + \gamma_{01j} \mathbb{W}_{qj} + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11j} \mathbb{W}_{qj}$$

At Level 1, the multilevel model includes only the distinguishing variable within dyads, *generation* (coded 0 for parents and 1 for children), as a predictor (Model 1). The intercept  $\beta_{0j}$  represents the expected inheritance probability for individuals in dyad  $j$  whose generation is equal to 0 (i.e., parents). The slope  $\beta_{1j}$  represents effects of

generation on the probability of inheritance. Here, it should be noted that the Level 1 equation does not have an error term, due to the nature of dyadic data with binary dependent variables (McMahon, Pouget, & Tortu, 2006).

At Level 2, we examined the effects of four sets of predictors,  $\mathbb{W}_{qj}$  to explain the variation of the intercept ( $\beta_{0j}$ , overall inheritance probability within dyads) and slope coefficients ( $\beta_{1j}$ , generational differences in inheritance probability within dyads) across dyads. Thus, predictors for the intercept show factors affecting expectations on inheritance commonly for parents and children (Model 2), whereas predictors for the slope reveal if the effect of each factor is the same or different between parents and children, which is a form of interaction with the distinguishing variable (Model 3). We presented the significant interaction terms, trimming insignificant interaction terms for parsimoniousness of model. Given that inclusion of random slope variance for dyadic data with only two observations per cluster can cause convergence problems (McMahon et al., 2006), we included only the random intercept for the Level 2 model.

**Question 2.**—To examine dyadic correspondence on inheritance expectations, we looked at the proportion of four groups based on the answers of parent and offspring within dyads (Table 2): two concordant dyads (“yes–yes” or “no–no”) and two discordant dyads (“yes–no” and “no–yes”). First, a McNemar test was used to examine an effect of generation in the percentage of parents and children who expected an inheritance (Kenny et al., 2006). Second, to investigate factors related to patterns of the dyadic concordance on inheritance expectations, we conducted a logistic regression analysis (e.g., concordant dyads vs. discordant dyads), including the same sets of predictors as in Question 1.

## Results

### Factors Predicting Inheritance Expectations

The first question of this study was to examine factors that predict inheritance expectations reported by aging parents and their adult children (Table 3). As an initial step, we included only the distinguishing variable (i.e., parent or child), which estimates generational differences in dyadic reports of the inheritance expectations (Model 1). Generation showed a significant negative effect

Table 3. Multilevel Models to Predict Expectations of Inheritance

Predictors	Model 1		Model 2		Model 3	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Fixed effects						
Intercept	2.32***	0.27	-3.10	2.42	-5.89*	2.67
Generation ( <i>child</i> = 1)	-2.62***	0.32	-2.81***	0.34	1.40	1.40
<i>Economic resources</i>						
Parent—Income			0.29*	0.12	0.29*	0.13
Parent—Education			0.08	0.06	0.09	0.06
Child—Income			-0.15	0.12	0.09	0.17
Child—Education			0.09	0.08	0.09	0.08
<i>Family characteristics</i>						
Number of siblings			-0.15*	0.06	-0.15*	0.06
White ( <i>yes</i> = 1)			0.40	0.31	0.42	0.32
<i>Current support exchanges</i>						
Downward exchanges			0.48*	0.19	0.51**	0.20
Upward exchanges			-0.14	0.18	0.20	0.24
<i>Beliefs on family obligation</i>						
Parent—Parental obligation			-0.19	0.22	-0.21	0.23
Child—Filial obligation			-0.23	0.26	-0.28	0.26
<i>Controls</i>						
Parent—Age			0.05	0.03	0.05	0.03
Parent—Male ( <i>yes</i> = 1)			0.19	0.29	1.09	0.55
Parent—Self-rated health			0.12	0.13	0.11	0.13
Child—Age			-0.02	0.03	-0.02	0.03
Child—Male ( <i>yes</i> = 1)			0.12	0.25	0.11	0.26
Child—Self-rated health			0.15	0.13	0.16	0.14
Geographic distance ( <i>logged mile</i> )			0.25	0.15	0.24	0.15
<i>Interaction terms</i>						
Child—Income × Generation					-0.37*	0.19
Upward exchanges × Generation					-0.54*	0.22
Parent—Male × Generation					-1.28*	0.62
Random effects						
Intercept (VAR.)	1.45*	0.68	0.55***	0.51	0.62	0.53
-2 log likelihood	700.8		540.6		529.5	

Notes: Dyad *N* = 327. Observation *N* = 654.  
 \**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

on inheritance expectations, indicating that children were less likely to expect receiving an inheritance than parents intended to leave a bequest (*OR* = 0.07). The significant random effect for intercept indicated that there is substantial unexplained variance in the outcome variable, and Level 2 predictors could be added to the model.

Next, we added four sets of predictors to the model to explain between-dyad variability in the overall probability of expected inheritance (main effect model; Model 2). Regarding economic resources, only parents' income was significant in a positive direction, suggesting that dyads in which parents had higher levels of income are more likely to expect inheritances. None of offspring's economic resources were significant. Among family characteristics, number of siblings was negatively

associated with bequest probability, indicating that having more siblings is associated with the lower expectations of inheritance. Race did not show a significant effect on the inheritance expectations. Among the estimates of current exchanges of support, downward exchanges were positively associated with expectations of inheritance. Thus, dyads where parents are currently giving more support to children showed higher probability of expected inheritance. Upward exchanges (i.e., support given to parents) had no effect. Finally, we found no effects of parents' or offspring's beliefs about family obligation on expectations of inheritance.

We then turned to the interactions with generation to look at whether the four sets of factors are associated with expectations on inheritance in the same or different ways for each generation

(interaction effect model; Model 3). We found significant interaction effects with generation for three factors: child's income, upward exchanges, and parents' gender. Specifically, when children had higher levels of income, they were less likely to expect to receive an inheritance, whereas their parents were more likely to intend to leave one. In the dyads where children were providing more support to parents, children were less likely to expect to receive an inheritance, whereas their parents were more likely to expect leaving one. Finally, when the parent is a father, children were less likely to expect to receive an inheritance, whereas fathers were more likely to have intentions to leave an inheritance. After entering the interaction terms of these factors, the effect of generation was no longer significant.

### *Dyadic Correspondence in Expectations of Inheritance*

To address the second question about the dyadic correspondence, we first looked at the proportion of the four groups formed from parents' and children's dichotomous answers (see Table 2). As observed in the previous analysis, parents were more likely than their offspring to expect an inheritance (McNemar  $\chi^2(1) = 105.69, p < .001$ ). About a half of the dyads (53.5%) agreed regarding expectations of inheritance and the other half (46.5%) disagreed. Among correspondent dyads, more dyads answered "yes" (78.9%) than when both members of the dyad answered "no" (21.1%). For discordant dyads, the most common pattern of discordance was for parents to say that they will leave a bequest, but for their adult children to say they do not expect an inheritance. In contrast, it was very rare (5.3%) that parents say they would not leave an inheritance but for their children to expect to receive an inheritance.

To examine predictors associated with the dyadic concordance patterns on inheritance probability, we chose the two largest groups: "yes (parent)–yes (child)" dyads ( $n = 138$ ) as a correspondent pattern and "yes (parent)–no (child)" dyads ( $n = 144$ ) as a discordant pattern. We decided not to combine groups or compare all four groups separately, considering the small sample sizes of some groups and different characteristics of each group. We coded correspondent dyads 1 and discordant dyads 0. Table 4 shows the results of the logistic regression analysis to explain the differences between correspondent and discordant

dyads. Correspondent dyads where both parents and children answered "yes" showed higher levels of parents' income and support given from parents to children. They also showed lower levels of children's income and lower levels of children's obligation, compared with discordant dyads, in which parents intended to leave a bequest but their children did not expect an inheritance.

### **Discussion**

Findings of this study showed a significant difference in the expectations of inheritance between older parents and adult offspring. Specifically, in many families, adult children were less likely to expect to receive an inheritance than their parents intended to leave one. Thus, discrepant expectations over inheritance between generations suggest that inheritance issues are a substantially hidden agenda, even within older families. The fact that parents were more likely to expect to give a bequest than offspring expected to receive one may also reflect their psychological investment or stake in assuring the welfare of their children (Giarrusso, Feng, & Bengtson, 2004). In terms of the potential for conflict around inheritance, lower expectations of offspring about future inheritance may be less destructive following the parent's death than the opposite direction of differences (e.g., expectations of children are higher than parents' intentions). However, given that expectations surrounding inheritance can affect attitudes and behaviors regarding the inter-vivos support between parents and offspring, future studies are needed to examine how these generational differences in expectations affect support exchanges over time.

We examined four sets of predictors for the bequest expectations: economic resources, family characteristics, current support exchanges, and beliefs about family obligation. Among economic resources, only parent's income was positively associated with expectations on inheritance. This result is consistent with prior studies suggesting that bequest probability was not sensitive to children's characteristics, although parents are likely to respond to financial needs of children through immediate inter-vivos transfers (McGarry, 1999). Regarding family characteristics, when there were more children in the family, both members of the dyad were less likely to expect bequests. Again, this finding is consistent with prior studies suggesting the depletion of resources when there are more children (Fingerman et al., 2009; Schoeni, 1997).



Table 4. Logistic Regression Model to Predict Dyadic Correspondence of Expectations on Inheritance

Predictors	<i>B</i>	<i>SE</i>	Odds ratio ( <i>OR</i> )
<i>Economic resources</i>			
Parent—Income	0.27*	0.12	1.31
Parent—Education	0.08	0.06	1.09
Child—Income	-0.29*	0.13	0.75
Child—Education	0.07	0.08	1.07
<i>Family characteristics</i>			
Number of siblings	-0.10	0.06	0.91
White ( <i>yes</i> = 1)	0.05	0.30	1.05
<i>Current support exchanges</i>			
Downward exchanges	0.43*	0.19	1.53
Upward exchanges	-0.32	0.19	0.73
<i>Beliefs on family obligation</i>			
Parent—Parental obligation	-0.21	0.22	0.81
Child—Filial obligation	-0.45*	0.20	0.64
<i>Controls</i>			
Parent—Age	0.05	0.03	1.05
Parent—Male ( <i>yes</i> = 1)	-0.34	0.33	0.71
Parent—Self-rated health	0.17	0.12	1.18
Child—Age	-0.02	0.03	0.98
Child—Male ( <i>yes</i> = 1)	-0.03	0.25	0.97
Child—Self-rated health	0.09	0.13	1.10
Geographic distance ( <i>logged mile</i> )	0.24	0.14	1.27

Notes: Dyad *N* = 282.

Correspondent dyad = 1 (“*yes–yes*” dyad; *n* = 138); Discordant dyad = 0 (“*yes–no*” dyad; *n* = 144).

Model  $\chi^2$  (*df*) = 43.96 (17), *p* < .001.

\**p* < .05. \*\**p* < .01. \*\*\**p* < .001.

Also, interestingly, we found that current support given to a child had positive effects on inheritance expectations, whereas support given to a parent was not significant. This result seems to be contrary to the exchange hypothesis, which states that bequests can be a compensation for the support given to parents by children. Rather, it appears that when more parental support is given to a child, the dyads are more likely to expect an inheritance. This result suggests a continuity of intergenerational transfers as part of the same decision-making process leading to a bequest (McGarry, 1999). Given the overwhelmingly asymmetric downward direction of intergenerational transfers (from the upper to lower generations) over the life spans of both parents and children, adult families may repeat their established transfer patterns based on parents’ altruism in their final transfers, rather than based on reciprocity (Arrondel & Masson, 2006). In addition, current downward support may reflect offspring’s needs for parental support because inter-vivos transfers tend to be made in response to child’s needs. Although variables regarding children’s economic resources did not show significant effects on inheritance expectation,

the findings about downward exchanges may be because of other needs, such as emotional support or practical assistance.

Besides those factors commonly affecting bequest expectations for parents and children, we also found that child’s income, upward exchanges, and parent’s gender had significant interactions with generation. Thus, in forming one’s own expectations over inheritance, parents and offspring appear to be influenced by these factors in different ways. Given that generation was no longer significant after entering the interaction terms, the differential effects of those factors appear to contribute to the generational differences observed in the probability of expected inheritance.

Although child’s income and child-to-parent support have been emphasized as the main variables to reveal the bequest motives, these two factors showed differential effects by generation. The fact that prior studies did not show consistent evidence about the effects of these variables on the bequest behaviors may be related to the differential effects of these variables within families. Regarding children’ income, children who had higher levels of income were less likely to expect an inheritance

than parents intended. Thus, children appear to consider their own financial situation in forming expectations about inheritance, whereas parents plan for bequest regardless of children's income. In addition, when children are providing more help to their parents, children were less likely to expect to receive an inheritance than the likelihood their parents intended to leave a bequest. Contrary to the exchange hypothesis, if helping parents is caused by parents' needs and limited resources, it is less likely for children to expect to receive an inheritance from parents. Caputo (2002) indicated that for adult children, providing support to aging parents may be driven by needs of parents and filial responsibility, rather than expectations of future reciprocity on the part of their parents. Thus, the differential effects of these two variables may reflect issues about offspring's resources. Offspring with more resources may be less likely to expect inheritance as well as more likely to provide support to their parents.

In addition, we found interaction effects of parent's gender with generation on the inheritance expectations, although gender was not a main predictor. Children were less likely to expect to receive an inheritance from fathers. Given gender disparities in life expectancy, it may be that children consider that fathers' bequests are most likely to go to their wives, who would be expected to survive longer than fathers (Clignet, 2009).

There was a surprising amount of discordance between parent's intention and child's expectation of an inheritance, with about a half of the dyads disagreeing. The most common pattern of discordance was that children do not expect to receive an inheritance, but their parents have the intention of leaving a bequest, whereas the most common pattern of concordance was that both parents and children expected an inheritance. Because the majority of parents (86%) expressed their bequest intentions, the dyadic correspondence patterns tended to be distinguished by whether children also had expectations on inheritance. Our logistic regression analysis of the two largest groups ("yes–yes" vs. "yes–no") found that parent's income, child's income, downward exchanges, and child's filial obligation explained differences between the two patterns. Given that parents showed their intention to leave a bequest in both groups we compared, our analysis, in effect, can be interpreted as identifying predictors for children's expectations on inheritance when their parents have bequest intentions. First, regarding economic resources, when parents reported higher income and children

reported lower income, children are more likely to expect an inheritance, which results in correspondence with parents' intention in their expectations. Unlike parents who tend to follow the equal division rule, children seem to consider their own economic status as well as parent's financial availability in their expectations over inheritances. Second, when children are receiving more support from parents, they are likely to expect an inheritance. Again, given that inheritance issues might be an implicit agenda within families, current support received from parent may provide a basis for children's expectations of the future inheritance. Finally, children with strong feelings of obligation toward parent were less likely to expect an inheritance. Because filial obligation reflects normative beliefs that children are obligated to take responsibility for their aging parents without expectations for anything in return, offspring with stronger beliefs about filial obligation may not be concerned with future bequests.

This study also has limitations. First, though the use of information from multiple reporters offers a unique opportunity to look at the correspondence of the bequest expectations between parents and children, the parents who agreed to participate in this survey were different than parents who did not participate, in terms of socioeconomic status, health, and relationship quality. Second, we focused on parent–child dyads, but information on other family members (e.g., siblings) can be important beyond the dyad. Third, we used household income and education as indicators of each generation's economic situation. However, assets, savings, and debt should also be taken into account. Fourth, due to the nature of a binary dependent variable, we could not apply three-level models to deal with the shared variance within family for the 57 cases with reports about both mother and father. Fifth, we only compared the two groups where parents have inheritance intentions in predicting dyadic correspondence of inheritance expectation. However, given cultural expectation that parents will leave an inheritance to their offspring, it may be more interesting to examine situations under which parents will not leave an inheritance to their children. Finally, we do not have expectations on how much parents intend to bequest and how much children expect to receive. It would be interesting to examine the extent of concordance around the amount of inheritance, as well as to consider how much parents and children have discussed inheritance with one another.

These findings showing discrepancies between parents and their middle-aged children in their expectation over inheritance emphasize the importance of understanding different perspectives from family members in intergenerational transfers. The discrepancies appear to reflect systematic differences in the way that parents and children form their intention or expectation about inheritance. Although concordance in expectations is not necessary for positive quality parent-offspring relationships, discordance in these expectations could lead to conflict over inheritance issues. More detailed information, however, on factors such as amount of expected inheritance and how the inheritance is being divided among family members would be needed to tease out the full implications of disagreement. Given the increasing diversity of families and the weakness of cultural norms surrounding family life, misunderstandings between the generations about these issues are likely to become more common.

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#### References

Altonji, J. G., Hayashi, F., & Kotlikoff, L. J. (1992). Is the extended family altruistically linked? Direct tests using micro data. *American Economic Review*, 82, 1177-1198.

Altonji, J. G., Hayashi, F., & Kotlikoff, L. J. (2002). The effects of income and wealth on time and money transfers between parents and children. In A. Mason & G. Tapinos (Eds.), *Sharing the wealth: Demographic change and economic transfers between generations* (pp. 306-357). Oxford, England: Oxford University Press.

Angel, J. L., & Mudrazija, S. (2011). Aging, inheritance, and gift-giving. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (7th ed., pp. 163-173). San Diego, CA: Academic. doi:10.1016/B978-0-12-380880-6.00012-5

Arrondel, L., & Masson, A. (2006). Altruism, exchange or indirect reciprocity: What do the data on family transfers show? In S. Kolm & J. M. Ythier (Eds.), *Handbook of the Economics of giving, altruism and reciprocity*, Vol. 2 (pp. 971-1053). New York, NY: Elsevier. doi:10.1016/S1574-0714(06)02014-8

Becker, G. S. (1991). *A treatise on the family*. Cambridge, MA: Harvard University Press.

Bernheim, B. D., Shleifer, A., & Summers, L. H. (1985). The strategic bequest motive. *Journal of Political Economy*, 93, 1045-1076. doi:10.1086/298126

Berry, B. (2006). What accounts for race and ethnic differences in parental financial transfers to adult children in the United States? *Journal of Family Issues*, 27, 1583-1604. doi:10.1177/0192513X06291498

Caputo, R. K. (2002). Adult daughters as parental caregivers: Rational actors versus rational agents. *Journal of Family Economic Issues*, 23, 27-50. doi:10.1023/A:1014225613362

Caputo, R. K. (2005). Inheritance and intergenerational transmission of parental care. *Marriage and Family Review*, 37, 107-127. doi:10.1300/J002v37n01\_08

Clignet, R. (2009). *Death, deeds, and descendants: Inheritance in modern America*. Piscataway, NJ: Transaction.

Cox, D., & Rank, M. R. (1992). Inter-vivos transfer and intergenerational exchange. *Review of Economics and Statistics*, 74, 305-314. doi:10.2307/2109662

Davey, A., Janke, M., & Savla, J. (2004). Antecedents of intergenerational support: Families in context and families as context. In M. Silverstein & K. W. Schaie (Eds.), *Intergenerational relations across time and place: Annual review of gerontology and geriatrics*, Vol. 24 (pp. 29-54). New York, NY: Springer.

Fingerman, K. L., Miller, L. M., Birditt, K. S., & Zarit, S. H. (2009). Giving to the good and the needy: Parental support of grown children. *Journal of Marriage and Family*, 71, 1220-1233. doi:10.1111/j.1741-3737.2009.00665.x

Fingerman, K. L., Pitzer, L. M., Chan, W., Birditt, K. S., Franks, M. M., & Zarit, S. (2011). Who gets what and why: Help middle-aged adults provide to parents and grown children. *Journal of Gerontology: Social Sciences*, 66B, 87-98. doi:10.1093/geronb/gbq009

Giarrusso, R., Feng, D., & Bengtson, V. L. (2004). The intergenerational stake phenomenon over twenty years. In M. Silverstein & K. W. Schaie (Eds.), *Intergenerational relations across time and place: Annual review of gerontology and geriatrics*, Vol. 24 (pp. 55-76). New York, NY: Springer.

Guo, G., & Zhao, H. (2000). Multilevel modeling for binary data. *Annual Review of Sociology*, 26, 441-462. doi:10.1146/annurev.soc.26.1.441

Hurd, M. D. (2003). Bequest: By accident or by design? In A. H. Munnell & A. Sundén (Eds.), *Death and dollars: The role of gifts and bequests in America* (pp. 93-117). Washington, DC: Brookings Institution Press.

Hurd, M. D., & Smith, J. P. (2001). Anticipated and actual bequests. In D. A. Wise (Ed.), *Themes in the economics of aging* (pp. 357-389), Chicago, IL: The University of Chicago Press.

Ikkink, K. K., van Tilburg, T., & Knipscheer, K. C. P. M. (1999). Perceived instrumental support exchanges in relationships between elderly parents and their adult children: Normative and structural explanations. *Journal of Marriage and the Family*, 61, 831-844. doi:10.2307/354006

Izuhara, M. (2008). *Housing, care, and inheritance*. New York: Routledge.

Kao, Y. E., Hong, G. S., & Widdows, R. (1997). Bequest expectations: Evidence from the 1989 Survey of Consumer Finances. *Journal of Family and Economic Issues*, 18, 357-377. doi:10.1023/A:1024943421055

Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York, NY: The Guilford Press.

Kohli, M., & Künemund, H. (2003). Intergenerational transfers in the family: What motivates giving? In V. L. Bengtson & A. Lowenstein (Eds.), *Global aging and challenges to families* (pp. 123-142). New York, NY: Aldine de Gruyter.

Kotlikoff, L. J., & Morris, J. N. (1989). How much care do the aged receive from their children? A bimodal picture of contact and assistance. In D. A. Wise (Ed.), *The economics of aging* (pp. 149-172). Chicago, IL: University of Chicago.

Künemund, H., Motel-Klingebiel, A., & Kohli, M. (2005). Do intergenerational transfers from elderly parents increase social inequality among their middle-aged children? Evidence from the German Aging Survey. *Journal of Gerontology: Social Sciences*, 60B, S30-S36. doi:10.1093/geronb/60.1.S30

Laitner, J. (1979). Household bequest behaviour and the national distribution of wealth. *Review of Economic Studies*, 46, 467-483. doi:10.2307/2297014

McGarry, K. (1999). Inter vivos transfers and intended bequests. *Journal of Public Economics*, 73, 321-351. doi:10.1016/S0047-2727(99)00017-1

McGarry, K., & Schoeni, R. F. (1995). Transfer behavior in the Health and Retirement Study. *The Journal of Human Resources*, 30, S184-S226. doi:10.2307/146283

McGarry, K., & Schoeni, R. F. (1997). Transfer behavior within the family: Results from the Asset and Health Dynamics Study. *Journal of Gerontology*, 52B, 82-92. doi:10.2307/146283

McMahon, J. M., Pouget, E. R., & Tortu, S. (2006). A guide for multi-level modeling of dyadic data with binary outcome using SAS PROC NLMIXED. *Computational Statistics and Data Analysis*, 50, 3663-3680. doi:10.1016/j.csda.2005.08.008

Menchik, P. (1980). Primogeniture, equal sharing and the U.S. distribution of wealth. *Quarterly Journal of Economics*, 94, 219-234. doi:10.2307/1884542

Norton, E. C., & van Houtven, C. H. (2006). Inter-vivos transfers and exchange. *Southern Economic Journal*, 73, 157-172. doi:10.2307/20111880

Perozek, M. G. (1999). A reexamination of the strategic bequest motive. *Journal of Political Economy*, 106, 423-445. doi:10.1086/250015

Sayer, A. G., & Klute, M. M. (2005). Analyzing couples and families: Multilevel methods. In V. L. Bengtson, A. C. Acocck, K. R. Allen,

- P. Dilworth-Anderson, & D. M. Klein (Eds.), *Sourcebook of family theory and research* (pp. 289–314). Thousand Oak, CA: Sage. doi:10.4135/9781412990172.d63
- Schoeni, R. F. (1997). Private interhousehold transfers of money and time: New empirical evidence. *Review of Income and Wealth*, 43, 423–448. doi:10.1111/j.1475-4991.1997.tb00234.x
- Silverstein, M. (2006). Intergenerational family transfers in social context. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (6th ed., pp. 165–180). New York, NY: Academic Press. doi:10.1016/B9-78-012088-3/88250-0134
- Silverstein, M., Gans, D., & Yang, F. M. (2006). Intergenerational support to aging parents: The role of norms and needs. *Journal of Family Issues*, 27, 1068–1084. doi:10.1177/0192513X06288120
- Silverstein, M., Parrott, T. M., & Bengtson, V. L. (1995). Factors that predispose middle-aged sons and daughters to provide social support to older parents. *Journal of Marriage and the Family*, 57, 465–475. doi:10.2307/353699
- Sousa, L., Silva, A. R., Santos, L., & Patrão, M. (2010). The family inheritance process: Motivations and patterns of interaction. *European Journal of Ageing*, 7, 5–15. doi:10.1007/s10433-010-0139-3
- Stum, M. S. (2000). Families and inheritance decisions: Examining non-titled property transfers. *Journal of Family and Economic Issues*, 21, 177–202. doi:10.1023/A:1009478019537
- Wilhelm, M. O. (1996). Bequest behavior and the effect of heirs' earnings: Testing the altruistic model of bequests. *American Economic Review*, 86, 874–892.