

## Intergenerational Transfers Between Parents and Their Multiple Adult Children in South Korea

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### Abstract

Guided by the exchange model, altruistic model, intergenerational solidarity theory, and cultural contexts, this study explored the determinants of financial intergenerational transfers between older parents and adult children in South Korea. We examined 18,820 parent-child dyads by using random-effects models on the first wave of the Korean Longitudinal Study of Ageing (KLoSA) data. Findings showed that downward financial intergenerational transfers were consistent with the self-interest exchange model but upward transfers did not support microeconomic theories. Family solidarity theory was generally supported by downward transfers but geographical proximity was not positively associated with upward transfers. Lastly, cultural contextual variables such as marital status, birth order, and sex of a child were found to be significant. Parents tended to both provide and receive more financial support from unmarried children than from married children. Within the same marital status, the hierarchy existed in order of the first-born son, the second or later sons, and daughters when it came to downward financial transfers. Regarding upward financial transfers, the preference in order was more complicated. The findings of this study help in understanding the intergenerational financial transfers in the Korean context.

### Keywords

intergenerational transfers, financial transfer, self-interest exchange model, altruistic model, solidarity theory, Korean family

## Introduction

Intergenerational financial transfers have been studied consistently by economists, social scientists, family scholars, and policy makers in recent years because intergenerational financial transfers are closely associated with the welfare system for the elderly and wealth equality of the government (Antonucci, Jackson, & Biggs, 2007; Morgan & Scott, 2007). In South Korea, particularly, financial transfers within families have been a critical issue as the Korean welfare system relies heavily on unofficial welfare, because private transfers occupy a substantial portion of the income security for the elderly (Kim, 2007). In practice, private transfers have been found to be more important than public transfers in alleviating wealth inequality and poverty (Kim, 2002).

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Moreover, population aging in Korea has rapidly expanded<sup>1</sup> but government assistance for the elderly has not yet been adequate<sup>2</sup>.

In Western cultures, economic theories such as self-interest exchange and altruism models have often been used to understand intergenerational transfers whether motivated by reciprocity or well-being. Family solidarity theory assumes that the affective closeness between generations motivates the intergenerational transfers, and the structural characteristics (structural solidarity) and shared activities or contacts (associational solidarity) are associated with intergenerational transfers (Bengtson & Schrader, 1982).

In Korea, financial transfers between parents and adult children are bi-directional and more prevalent than in Western cultures. Traditionally, adult children have been expected to provide financial support for their elderly parents (Kim, 2007). In a Confucius culture, sons rather than daughters, and particularly the first-born sons rather than the other children, have not only been expected to take the primary role to support their elderly parents but also to inherit more.

On the other hand, the majority of Korean parents are known to believe they should provide financial support for their adult children (Cho, 2010). Studies have found that many Korean parents feel obligated to pay for their children's education for the benefit of vertical mobility in social status. With extended education and delayed marriage, parental support for adult children has been lengthened. As a result, many parents have minimized their retirement savings to contribute to their adult children's education, weddings, and home-buying (Jung, 2005).

The purpose of this study is to explore what factors explain financial transfers between older parents and adult children in Korea. In other words, we investigate determinants of intergenerational financial transfers based on variables representing cultural contexts as well as those driven by traditional theories on intergenerational transfers: exchange, altruism, and solidarity

<sup>1</sup>According to the Statistics Korea, the population aged 65 or older occupied 12.7% of the total population in 2014, which showed a constant increasing trend compared to 7.2% in 2000 and 5.1% in 1990, respectively.

<sup>2</sup>For example, individual elderly Korean are responsible for their own retirements as government pensions provides for mere 15.2% of elderly income (Zaidi, 2009).

models. This study will contribute to the literature by taking into account for the cultural factor which may motivate intergenerational transfers in the Korean context along with determinants based on exchange, altruism, and family solidarity theories.

## Theoretical and Empirical Background

### Microeconomic Approach: Self-Interested Exchange and Altruism Models

According to the exchange model, the motivation of the donors is to obtain benefits from the potential recipients (Bernheim, Shleifer, & Summers, 1991). With the assumption of reciprocity, elderly parents are assumed to transfer their resources to a child who provides or will provide more benefits in return. In essence, the exchange perspective posits that the amount of the intergenerational financial transfers increases as the recipients' wealth or resources increases.

The underlying assumption of the altruism model is that donors care about the well-being of the recipients. Parents or children have a tendency to balance their wealth between generations and across multiple children (Atonji, Hayashi, & Kotlikoff, 1992; Becker, 1988; Cox & Rank, 1992). The model also assumes that intergenerational transfers flow from the most affluent and financially stable family member to the least (Atonji et al. 1992). Thus, as a recipient's economic resources decrease, other things being equal, the amount transferred to a recipient would increase to enhance the recipient's well-being (Cox, 1987; Fan, 2001).

Empirical evidence regarding inter vivo transfers have been supported in both the self-interested exchange and altruism models despite the incompatibility of the two theoretical models. Consistent with the self-interested exchange model, Cox and Rank (1992) showed that children with higher incomes received more assistance from their relatives than did lower income children. On the other hand, some studies have generated considerable support for the altruism model: children with greater incomes have been found to receive less financial transfers (Antonji et al., 1997; Gatti, 2005).

In Korea, however, the altruistic model seems to be a more powerful theoretical framework rather than the exchange model for

explaining the motivation of intergenerational financial transfers (Kim, 2007; Kim & Song, 2008; Lee & Koh, 2011; Son, 2008). Both downward and upward transfers are expected to occur when the beneficiaries have fewer resources (Kim & Song, 2008; Son, 2008) and when donors have more resources (Lee & Koh, 2011).

### Social Psychological Approach: Intergenerational Solidarity Theory

Solidarity theory assumes that intergenerational relations are lifelong processes and bidirectional, and that family members have a tendency to be glued together; therefore, the family operates as a support system for socially and economically disadvantaged family members (Bengtson & Schrader, 1982). The theory assumes an association among four solidarity factors: frequency of contact (associational solidarity), geographical proximity (structural solidarity), exchanges of assistance (functional solidarity), and affective closeness between parents and adult children (affectual solidarity).

Results from empirical research consistently support a positive association between intergenerational affection and intergenerational transfers in both the United States and Korea (Kim, Choi, Swarn, & Kim, 2012; Parrot & Bengtson, 1999; White, 1994). Opportunities such as geographic proximity of family members (structural solidarity) and the frequency of physical interaction (associational solidarity) have been found to be important in exchanges of assistance (Silverstein & Bengtson, 1997), and studies have found positive relationships between interactions and resource exchange between generations (Ikkin, van Tilburg, & Knipscheer, 1999). Geographic proximity increases associational solidarity such as frequency of contact (Aldous & Klein, 1991; Hank, 2007; Whitbeck, Hoyt, & Huck, 1993). However, some researchers have found that while it might increase physical and social exchanges, geographic proximity may not be directly associated with intergenerational financial support (Aldous & Klein, 1991).

Prior research in Korea that tested the solidarity theory had mixed results. While downward financial transfers from parents to children were found to be positively associated with geographic proximity and frequent contact, upward financial transfers did not seem to be in line with assumptions of solidarity theory (Chung,

2007; Han & Yoon, 2004).

Two research questions of this study based on the aforementioned theoretical and empirical background are as follows:

RQ1. Are upward and/or downward financial transfers between older parents and adult children motivated by altruism or self-interests?

RQ2. Are upward and/or downward financial transfers between older parents and adult children motivated by family solidarity?

## The Situation in Korea

Traditionally, adult children in Korea have cared for their elderly parents. Adult children have provided more financial support for their older parents than those in America (Choi, 2009). Moreover, due to the lack of private or government pensions and retirement savings, financial support from children has been an important source of retirement income for the Korean elderly (Kim & Song, 2008; Son, 1999).

Downward financial support from parents to adult children has also been shown to be prevalent in Korea as the educational achievement of children is a crucial part in achieving prestigious social status for the family. Lee (2011) found that parents and children commonly thought that parents would have some responsibility of financial support to their children's college or graduate school education, spending money while searching for jobs, and marital preparation. Such support has been extended because of the delayed timing of the first marriage and the high unemployment rate of young adults<sup>3</sup>.

The notion of intergenerational transfers is differentiated across gender, birth order, and marital status of children. In the Korean culture, being widely credited from Confucianism, sons rather than daughters have more responsibility for taking care of the elderly parents as well as having more inheritance or decision rights within a family. Particularly, the first son (*Jang-nam*) has the biggest responsibility for the elderly parents as well as the most power within a family, and the married daughter has the least power in the family of orientation. In other words, the financial support for the

<sup>3</sup>According to the Statistics Korea, the timing at the first marriage is 32 for men and 27 for women in 2011, and the unemployment rate of young adults between aged 15 and 29 is 9.1% in February, 2013.

elderly parents from adult children has been traditionally expected especially for the first-son among multiple children, and at the same time, the first-son is the primary beneficiary. On the contrary, once married, daughters have not traditionally been recognized as family members and have had the least decision-making power. This tradition was also reflected in estate law in Korea over the past 50 years. Parental inheritance has been expected to be bequeathed in order of the first-born son (*Jang-nam*), the second-born or later sons, unmarried daughters, and married daughters differently<sup>4</sup> insofar as the first-born son was in charge of hosting annual memorial services for ancestors as the heads of household (*Ho-ju*). This discrimination across children has dwindled over time and the legal premium for the first-born son in estate law was completely abolished in the revision of 1990. Nevertheless, previous studies still found that these traditions exist in practice. Using KLoSA data, Park (2010) found that married first-born sons were shown to be most likely to financially support their elderly parents on a regular basis and studies have also shown that first-born sons support elderly parents the most not only through financial help but also through co-residence with them (Kim, 2007; Han & Yoon, 2004). Gender and marital status of children are important factors to be considered in understanding intergenerational transfers in Korean culture.

As shown in the previous studies, intergenerational transfers would vary across gender, birth order, and marital status of children in the Korean culture, and the comparison among multiple children of a parent would provide significant findings. Accordingly, the current study aims to examine factors driven by cultural context in explaining upward and downward financial transfers between parents and adult children, along with the self-interested exchange model, altruism model, and solidarity theory.

Taking into consideration of the situation of Korea, the third research question is as follows.

RQ3. Do upward and/or downward financial transfers between older parents and adult children differ across gender, birth order, and marital status of children within a family?

<sup>4</sup>The first-son (*Jang-nam*), the second or later sons, unmarried daughters were expected to inherit six times, four times, and twice more than a married daughter's portion, respectively until the revision in 1979. Also, the married daughters were bequeathed the half of other siblings' portions until the revision in 1990.

## Methods

### Data

Our study uses data from the Korean Longitudinal Study of Ageing (KLoSA). The KLoSA dataset was created by interviewing nationally representative respondents (excluding those in Jeju Island) who were aged 45 or older in 2006. We used the first wave of KLoSA and the total sample size at T1 was 10,254. KLoSA did not provide any information on transfers between co-resident parents and children, although co-residence implies substantial monetary or labor supports for the other generations (Soldo & Hill, 1993). Therefore, the present study includes only parents who had at least one adult child (aged 18 or over) living elsewhere, between 50 and 79 years old (n=6,465). The average number of children of analytic sample was 3.4 children and the total number of dyads of a parent and adult children living elsewhere was 18,820. Among parents having at least one adult child living elsewhere (n=6,465), about 11.53% of them gave financial transfers to at least one adult child (n=746). When it comes to all observations including multiple parent-adult children dyads within a family (n=18,820), about 5.36% of parent-child dyads made financial transfers from a parent to a child (n=1,009). This reduction of rate would be associated with the fact that parents do not necessarily give financial support equally across children while 56.66% of them received financial transfers from at least one adult child (n=3,663). While 56.66% of them received financial transfers from at least one adult child, 47.97% of parent-child dyads showed financial transfers from a child to parent (n=9,028). Table 1 shows the detailed descriptive statistics of respondents and their children.

### Measures

#### *Dependent Variable: Amount of Financial Transfers*

Parents with at least one adult child were asked about the amount of financial transfers they had made to their adult children only not living together. A financial transfer was defined in the questionnaire as: "giving money, helping pay bills, or covering specific types of costs such as those for medical care or insurance, schooling, down payment for a home, rent, etc., but it does not count any shared housing or shared food." Regarding received financial support, the respondents were asked separately about

Table 1. Descriptive statistics

Characteristics Variables		All	Downward	Upward
<b>PARENTAL CHARACTERISTICS</b>				
	Number of respondents	6,465 (100%)	787 (12%)	3,853(60%)
Resources	Log Family Income (\$ <sup>5</sup> )	7.02	7.49	6.89
	Log Net worth (\$)	7.01	7.36	6.99
	Education			
	elementary school diploma (%)	57	40	63
	middle school diploma (%)	16	20	15
	high school diploma (%)	20	25	17
	college degree or up (%)	7	15	5
Socio-demographic factors	Male (%)	42	50	40
	Age	64	60	66
	Married (%)	78	89	77
	Healthy (%)	41	53	36
	Number of children	3.4	3.3	3.7
	Having (a) living parent(s) (%)	20	33	16
<b>CHARACTERISTICS OF CHILDREN</b>				
	Number of R's children	18,820 (100%)	1,009 (5%)	9,028 (48%)
Resources	Employed (%)	60	45	66
	Home owner (%)	30	24	38
	Education (College degree +) (%)	46	73	46
Socio-demographic factors	Male (%)	49	57	48
	Age	39	33	40
	Married (%)	81	53	88
	Number of children	1.5	0.9	1.6
<b>FAMILY SOLIDARITY</b>				
Structural solidarity	< half hour distance (%)	18	20	18
	< one hour distance (%)	25	20	25
	< two hour distance (%)	18	20	20
	two hour or more distance (%)	39	12	37
Associational solidarity	Daily meet (%)	4	5	4
	Weekly meet (%)	14	19	14
	Monthly meet (%)	27	29	27
	Annual or more (%)	55	47	56
<b>CULTURAL CONTEXT</b>				
	Unmarried daughter (%)	7	15	5
	Married daughter (%)	44	28	47
	Unmarried first-son (%)	7	20	3
	Married first-son (%)	21	17	22
	Unmarried second or later son(%)	5	11	4
	Married second or later son (%)	15	8	19

<sup>5</sup>The amount is transformed by the exchange rate in 2005, which is 960 won to the dollar.

the amount of transfers that they either regularly or occasionally received from their children in the previous year (2005). Regular monetary transfers, such as monthly allowances, for the previous

12 months and occasional monetary transfers without any regularity, such as paying for medical bills or schooling and occasional allowances, were combined to determine the amount

of received financial transfers. Similarly, the amount of given monetary transfers were measured by calculating annual regular and occasional-monetary transfer amounts from the previous 12 months. With regard to handling the missing values of dependent variable, this study used listwise deletion.

#### *Independent Variables*

*Children's resources.* A child's *employment status*, *education*, and *home ownership* were included in order to measure children's resources because the KLoSA did not include direct measures of children's financial resources, such as income and wealth. KLoSA measured child's *employment status* and *home ownership* with a dichotomous variable and child's *education* is measured with a nine-rank ordinal scale (1-no formal education, 9-post college (PhD)). These three variables were measured with dummy variables. '1' indicated employed, equal to or more than college degree, and owning one's home, respectively.

*Parents' resources.* Parent's *education*, *family income*, and *net worth* were used to measure a parent's resources. *Education* was originally measured with a nine-rank ordinal scale and, in this study, it was coded with four binary variables: elementary school, middle school, high school (reference group), and college or up. Originally measured family income and net worth were used with the logged amount. Because we already excluded cases who did not answered the intergenerational financial transfers, few missing value was found in the independent variables and they were excluded in terms of the listwise deletion.

*Family solidarity.* *Geographical proximity* as structural solidarity was originally measured with four-rank ordinal scale and, in this study, coded with the dummy variable: living within a one-hour distance by public transportation was coded '1' and as a '0' for more than a one-hour distance. As an associational solidarity, *frequency of call/emails* between parents and children was employed. KLoSA measured intergenerational *frequency of call/emails* by 10-rank ordinal scale. Frequency of calls or emails of at least on a weekly basis or more frequently was coded '1' and '0' was used for calls or emails of a frequency of bi-weekly or less in this study.

*Cultural context.* This study measured the children's status within a family as a cultural factor in terms of the combinations of the birth order, gender, and marital status. As a categorical variable, children's status within a family consisted of six dummy variables: married daughter, unmarried daughter, married first-born son, unmarried first-born son, married second or later son, and unmarried second or later son. The first-born son (Jang-nam) was not necessarily the first child among multiple children. The important factor that determined the first-born son was not the first child among children but among sons. If a parent had five children consisting of four daughters and the son was the last child, the fifth child was called 'Jang-nam'. That is, the second, third, or the final child could be the first-son (Jang-nam) regardless of the birth order insofar as he had only older sisters. Accordingly, a married first-born son, unmarried first-born son, married second or later son, and unmarried second or later son were coded '1' and '0' for others, respectively.

#### *Control Variables*

A number of other socio-demographic characteristics of the respondents and their children were controlled for in our analysis. These included a respondent's gender, age, marital status, number of children, health status (healthy=1), and parent's survival with a dummy variable, which was coded '1' if at least one parent of the respondents (i. e., grandparent of adult child) was still living and '0' if otherwise. Also, the children's ages and the number of children were included in our analysis.

#### **Analysis and Model**

To understand the intergenerational financial transfers between parents and their multiple children, we examined the multiple dyads between parents and all of their children by using the random-effects model on the first wave of KLoSA data.

For the purpose of investigating the characteristics of children that influence financial transfers with parents, we used the random-effects models that take into account unit-specific effects. The random-effects model is able to capture the effects of unmeasured child-invariant characteristics within a family such as parents' marital relationship, a parent's attitude toward grandparents, and early childhood experiences which can affect

intergenerational transfers. The number of observations for random-effects models was not 6,465, but 18,820. Observations had both child-varying characteristics, such as child's sex, birth order, education, marital status, parental status, employment status, and child-invariant traits, such as unobserved parent's attitude toward grandparents, early childhood living arrangements, and so forth.

As such, we estimated a model of the following form:

$$Y(\text{intergenerational transfers})_{ic} = \alpha_i + \beta_1(\text{a child's resource})_{ic} + \beta_2(\text{a parent's resource})_{ic} + \beta_3(\text{family solidarity})_{ic} + \beta_4(\text{cultural context})_{ic} + \beta_5(\text{control variables})_{ic} + u_i + v_c + w_{ic}$$

Where  $i$  indexes individual parent ( $i=1, 2, \dots, 6,465$ ) and  $c$  indexes child ( $c=1, 2, 3, \dots, 9$ ). Also, the error term was composed of the individual fixed component of error ( $u$ ), the child-variant component error ( $v$ ), and the purely random component error ( $w$ ).

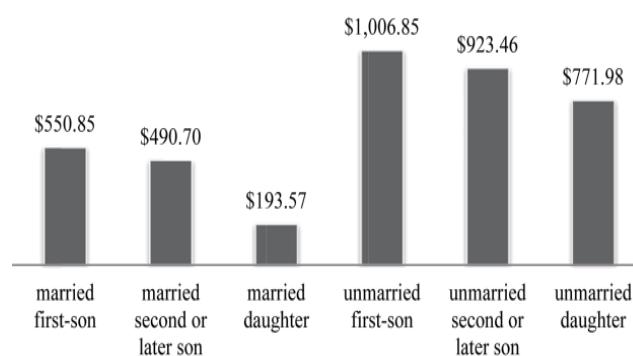
## Results

Descriptive statistics in Table 1 show that more financial transfers occurred from children to parents (60%) than from parents to children (12%). Parents who provided financial transfers for children had a higher average family income and average net worth than those who received financial support from children. A greater percentage of parents who showed downward financial transfers had a middle school diploma or a higher degree. A smaller percentage of children who received *downward* financial transfers was employed (45%) and owned a house (24%) than those who provided upward financial support for parents (66% of children were employed, 38% of children owned a house). Also, a greater percentage of children who received financial support from parents had an educational attainment of college or above (73%) compared to those who provided upward financial transfers (46%). A higher percentage of children who received money from parents lived more than a two-hours away (48%) compared to children who gave money to parents (37%). Children who received financial transfers from parents more frequently associated with parents (69% at least on a weekly basis) relative to those who showed upward financial transfers (58%). As for cultural context, a greater percentage of

children who supported financial transfers for parents were married daughters (47%) than those who received financial support from parents (28%). On the contrary, a greater percentage of children who received money from parents were the unmarried first-born sons (20%) compared to those who gave money to parents (3%).

### *Determinants of Downward Financial Transfers (from Parents to Children)*

The results for exploring the determinants of financial transfers between parents and children are shown in table 2. Parents with higher family income and net worth provided more financial support for children than those who had a lower family income and net worth ( $b=0.189, p<.01$ ;  $b=0.107, p<.01$ , respectively). Children living closer to parents ( $b=0.770, p<.001$ ) and in contact at least on a weekly basis ( $b=0.808, p<.001$ ) were more likely to receive money from parents than those living more than a one-hour distance away and contacting less frequently. Married daughters tended to receive less financial support from parents than the other types of children. Particularly, the unmarried first-born son was more likely to receive a higher amount of money than married daughters ( $b=1.583, p<.001$ ), followed by the unmarried second or later sons ( $b=1.500, p<.001$ ). Figure 1 shows the amount of downward financial transfers within the cultural context in terms of children's marital status, birth order, and gender, holding other variables fixed at the average level. In general, unmarried children tended to receive a higher amount of financial support from parents than did married children. The amount of money that unmarried first-born sons and second or later sons received was similar (\$1,006.85 for the unmarried first sons and \$923.46 for the unmarried second or later sons). The amount of financial support



**Figure 1.** The amount of downward financial transfers by cultural context (Children's marital status, birth order, and gender).

Table 2. Determinants of intergenerational transfers between parents and children

	Downward (Parent to child) (N=465)		Upward (Child to parent) (N=,3,138)	
	Coef	SE	Coef	SE
<b>PARENT'S CHARACTERISTICS</b>				
Log Family Income <sup>6</sup>	0.189**	0.074	0.029	0.019
Log Net worth <sup>6</sup>	0.107**	0.039	-0.010	0.013
Education (Elementary or lower=1)	-0.117	0.181	-0.210***	0.055
Sex (Male=1)	-0.207	0.168	-0.182***	0.055
Age	-0.017	0.022	0.025***	0.005
Marital status (Married=1)	-0.155	0.269	-0.107	0.069
No. of children	0.203**	0.071	-0.047*	0.019
Health Status (Healthy=1)	-0.042	0.161	0.119*	0.050
Parent's survival (At least one living parent=1)	-0.039	0.176	-0.008	0.066
<b>CHARACTERISTICS OF CHILDREN</b>				
Education (college+ =1)	0.118	0.199	0.302***	0.041
Employment status (employed=1)	-0.220	0.181	0.209***	0.041
Home owner (owner=1)	-0.154	0.214	0.221***	0.038
Age	-0.014	0.021	-0.008*	0.004
No. of own children	-0.072	0.116	0.013	0.021
<b>FAMILY SOLIDARITY</b>				
Geographic proximity (living less than 1 hour =1)	0.770***	0.167	0.014	0.037
Frequency of contact (at least weekly call =1)	0.808***	0.186	0.200***	0.044
<b>CULTURAL CONTEXT</b>				
Child's Marital status * Sex * Birth order (ref: married daughter)				
Unmarried daughter	1.328***	0.285	0.310***	0.080
Married first-son	1.004***	0.249	0.097*	0.045
Unmarried first-son	1.583***	0.282	0.141	0.094
Married second or later son	0.893**	0.304	0.043	0.049
Unmarried second or later son	1.500***	0.300	0.183*	0.087
Constants	2.288*	1.171	2.211***	0.336
Sigma u	0.611		0.681	
Sigma e	1.309		0.666	
ρ	0.179		0.511	

Note: Standard errors in parentheses

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

<sup>6</sup>The coefficients of income and net worth refer to changes in log family income and log net worth when 1000won (\$1.04) increases.

from parents to unmarried daughter was \$771.98. On the contrary, a married first-born son received \$550.85 which was smaller than the amount that unmarried children received regardless of the birth order or sex of children. Married daughters received the smallest amount of money by \$193.57. The random-effects model revealed that 17.9% of the variance was due to differences across multiple children within a family ( $\rho=0.179$ ).

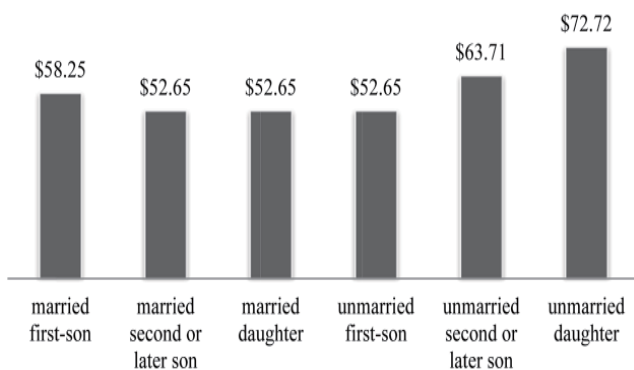
*Determinants of Upward Financial Transfers (from Children to Parents)*

As shown in Table 2, children with more resources in terms of higher educational achievement ( $b=0.302, p<.001$ ), employment ( $b=0.209, p<.001$ ), and home ownership ( $b=0.221, p<.001$ ) were more likely to support their parents financially. Only the level of educational achievement of parents among a parent's resources was significantly associated with upward financial transfers.



## Discussion

Parents who had an elementary school diploma or less tended to receive less money from children than those with a higher educational achievement ( $b=-0.210$ ,  $p<.001$ ). Children who frequently were in contact with their parents tended to give parents higher amounts of financial support than others ( $b=0.200$ ,  $p<.001$ ). Unmarried daughters showed higher amounts of financial support for their parents than did married daughters ( $b=0.310$ ,  $p<.001$ ), and unmarried second or later sons tended to give more money to parents than did married daughters ( $b=0.183$ ,  $p<.05$ ). Also, married first-born sons tended to support higher amounts of money for their parents compared to married daughters ( $b=0.097$ ,  $p<.05$ ). Specifically, Figure 2 shows the amount of upward financial transfers by the cultural context in terms of the children's marital status, birth order, and gender, holding other variables fixed at the average level. Unmarried children were more likely to give money to parents than were married children, except the first-born sons. In particular, the amount of money given to parents was the greatest for unmarried daughters (\$72.29), followed by unmarried second or later sons (\$63.71) in comparison to married children, except first-born sons (\$52.65). Unmarried first-born sons provided financial support for parents equal to the support of the other types of married children (\$52.65) and the smallest amongst other types of unmarried children. On the contrary, married first-born sons gave a greater amount of money to parents (\$58.25) than did other types of married children. The random-effects model revealed that 51.1% of the variance was due to differences across multiple children within a family ( $\rho=0.511$ ).



**Figure 2.** The amount of upward financial transfers by cultural context (Children's marital status, birth order, and gender).

Consistent with the exchange model and previous studies, parents with higher educational levels tended to receive more financial support from children than those with lower educational levels. However, findings in financial transfers from parents to children were not consistent with microeconomic theories, although parents with more resources show the higher subjective economic well-being of themselves in the previous study (Seo, 2010).

Family solidarity theory was overall supported. Parents tended to give more money to children living closer and in more frequent contact regardless of children's resources. Upward financial transfers were positively associated with associational solidarity such as frequent contact but not with structural solidarity such as geographical proximity. This result regarding the structural solidarity seems to be consistent with the previous study in which co-residence with children were more likely to affect the subjective well-being of the elderly parents (Kang & Lee, 2010). However, intergenerational support could include other resources such as time and space, and those can often be a substitution within each parent-child dyad (Soldo & Hills, 1993). While this study did not examine any relationships among these supports, substitution might occur differently across the geographical proximity. Also, major governmental agencies, major companies, cultural industry, and prestigious educational institutions are highly concentrated in the Seoul Metropolitan area. Therefore, those who have better career and earning capacities are more likely to reside in the Seoul Metro and as a result they may have more geographically distant from their parents than do others.

Cultural contextual variables such as marital status, birth order, and gender of a child were found to be significant. Parents were more likely not only to provide but also to receive financial support from unmarried children than from married children. Within either married or unmarried children, the hierarchy existed in order of the first-born son, the second or later sons, and the daughters when parents gave money to multiple children. However, the preference in order was complicated in upward financial transfers from children to parents.

The above findings suggest that the applicability of the self-

interest exchange theory in non-Western cultures may need to be reconsidered. Preferring the first-sons had been formed by the social expectation that the first-son should take charge of old parents in the future. Therefore, the first-born son (*Jang-nam*)-oriented cultural context may be motivated by the self-interests of donors based on the exchange theory. In other words, the microeconomic approach may need different applications within different cultures.

Marital status of children was crucial in intergenerational financial transfers in Korea while the effects may vary in terms of the direction of intergenerational transfers. In the downward transfers, the children's marriage seems to be associated with the parents' feeling of responsibility. Adult children are considered to be members of the parents' household until they form their own families. This finding is consistent with previous findings that the adult children's independence from parents, a full transition into adulthood, tends to be acquired by children's marital status rather than by educational enrollment status or employment status (Han, 2013). Hence, parents may provide financial support for adult children until they become fully independent, which typically has meant until they get married.

Regarding the upward transfers, children's marriages could be associated with a concept of family boundaries that children develop. Unmarried children who have not started their own families were more likely to provide financial support for parents than married children who have their own family, but the first-born son showed a different pattern than other children. First-born sons may have less clear boundaries with parents compared to other children. That is, the first-born son may be more likely to support parents when he gets married, but less likely to support his parents when he is not yet married.

The current study contributes to the literature by adopting random-effects models, taking into consideration the invariant subject-specific characteristics across multiple children of parents. Including parent-child dyads rather than only focusing on a focal child allowed us to test the applicability of exchange, altruism, and family solidarity theories on intergenerational transfers in Korean culture more thoroughly by taking into account all children of the parents.

Typical variables such as income and education suggested by

widely accepted microeconomic theories on intergenerational transfers might not be applicable in Korean culture because the effects of economic resources of recipients were not found significantly both in upward and downward transfers. However, it should be cautious to conclude that microeconomic theories are not relevant in accounting for intergenerational transfers in Korea. Cultural variables such as first sons are not the typical variables representing resources in the microeconomic theory but, in the Korean context, the first son per se may imply the aspect of resource. Therefore, more culturally relevant variables need to be identified to understand the economic motivations of intergenerational transfers in different cultural contexts.

The discrepancy in the effects of the cultural contextual variables on upward and downward intergenerational transfers should be noteworthy because it may show that cultural norms may be in a state of transition. Findings in the downward transfers from parent to children show that the centrality of first sons (*Jang-nam*) is still salient among elderly parents. However, the centrality of the first son was not shown in the upward transfers from children to parents. Different from their parents, first-born sons may not internalize being primary caretakers for elderly parents anymore, as the equal right and duty among children may have been expected at the institutional level (Sung, 2012). A generational gap may exist in the responsibility of the first-born son, and furthermore, this discrepancy may increase the financial instability of elderly parents in the future. The Korean welfare system, heavily relying on private transfers, may not work as efficiently in this transitional period due to these conflicting and shifting norms.

The present study offers a couple of suggestions to researchers. First, perspectives of dyads can be different (Kim et al., 2012) in terms of whether a reporter is a donor or a recipient. The current study used the data from parent interviews. However, information reported by both parents and children will provide more accurate information about the amount of intergenerational transfers and themselves.

Secondly, this study used only the first wave of KLoSA data. With the nature of cross-sectional data in the current study, any causality of relationships may not be assumed. Because a parent-child relationship is particularly a long-term relationship and process, the implications from findings of this study should be

interpreted with caution. Because the KLoSA data provide three waves of data by now, future studies would be expected to control unmeasured confounders more fully and to provide the causality in the intergenerational transfer behaviors.

Also, this study has the limitation in a sense that respondents were selected in a household level, and therefore, there is the possibility of duplicating the sample as a couple. Therefore, we should note that results of the study may miss important relationships because of the underestimated standard error. To overcome the limitation of the study, in a future study, similarity or differences between mothers and fathers in intergenerational transfers are expected to be investigated.

Due to the limitations of a secondary dataset, only limited variables suggested by previous theoretical frameworks were available. Therefore, this study did not compare theories to test which theory would be a more relevant theoretical framework in understanding intergenerational transfers in Korea. A future study including all indicators suggested by each theoretical framework would contribute to understanding the most culturally-relevant theory in the Korean culture.

Lastly, this study did not include co-resident children. However, adult children are expected to live with their elderly parents in the Korean traditional norm and they may be most likely to exchange their resources with their elderly parents. Therefore, we encourage future studies to include the role of co-residence in understanding the motivations of intergenerational financial transfers.

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