

The Pennsylvania State University
The Graduate School
College of Health and Human Development

**INTERGENERATIONAL EXCHANGES AND SUPPORT
IN FAMILY CONTEXTS**

A Dissertation in
Human Development and Family Studies

by

Kyungmin Kim

© 2012 Kyungmin Kim

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

August 2012

The dissertation of Kyungmin Kim was reviewed and approved* by the following:

Steven H. Zarit
Head of the Department of Human Development and Family Studies
Professor of Human Development and Family Studies
Dissertation Adviser
Chair of Committee

Micheal J. Rovine
Professor of Human Development and Family Studies

David J. Eggebeen
Associate Professor of Human Development and Family Studies and Sociology

Valarie King
Professor of Sociology, Demography, and Human Development and Family Studies

J. Douglas Coatsworth
Professor of Human Development and Family Studies
Chair of the Graduate Program

*Signatures are on file in the Graduate School.

ABSTRACT

Parents and their adult children typically remain very involved with one another over the life course. One of important domains that characterize the parent-adult offspring relationships is the support and assistance that is exchanged between them. This dissertation comprises three studies that provide complementary perspectives on intergenerational support exchanges within a family system. The first two studies examine the role of discrepancies of perspective on exchanges among family members, using data from *The Family Exchanges Study*. The third study explores patterns of intergenerational support that married adults exchange with parents and parents-in-law in a Korean sample, adding a cultural perspective.

Using 929 parent-adult child dyads from three-generation families, Study 1 examined how discrepancies in reports of support exchanged within dyads of parents and offspring vary both within and between families, and what characteristics explain within- and between-family differences in dyadic discrepancies. The results showed substantial between-family differences as well as within-family differences in dyadic discrepancies. Although discrepancies in support exchanges were mainly associated with dyad-specific characteristics within families, they also appear to be influenced by the family's overall emotional environment. Families with better relationships among family members tended to be more congruent in their perspectives about support given to offspring.

Study 2 extends the investigation of discrepancies by including an important but overlooked issue - inheritance. Utilizing data from 327 aging parents and their middle-aged children, this study examined factors associated with expectations of inheritance and correspondence in expectations over inheritance within dyads. The findings showed that children were less likely to expect inheritances than parents expected to give. Although bequest decisions are circumscribed by parent's financial resources, they appear to be a continuation of established patterns of exchanges. This study also found that parents and children form their intention or expectation about inheritance based on different factors (e.g., child's income, support given to parent, and parent's gender), leaving open the possibility of misunderstandings between the generations.

Study 3 investigated patterns of support exchanges between Korean adult children ($N = 937$) and their parents and parents-in-law, gender differences in these patterns, and implications of exchange patterns for children's marital quality. Most studies of intergenerational exchanges have focused only on parents, but little attention has been given to help that may be directed toward in-laws. Korea is an interesting setting for examining support to both sets of parents because while it has traditionally been a patrilineal culture, rapid social changes have affected family norms and structure. Using latent class analysis, this study identified three balanced patterns and two imbalanced patterns of exchanges between parents and parents-in-law. These patterns reflected both the patrilineal tradition and contemporary balanced patterns. Significant associations of exchange patterns with adult children's marital quality indicate the importance for couples of balanced exchanges with parents that are not driven by obligatory norms.

In sum, this research extends our knowledge of how intergenerational exchanges occur in various family contexts. Together, these studies demonstrated the importance of considering family perspectives to understand the process of intergenerational exchanges and the implication for individual and family well-being.

TABLE OF CONTENTS

List of Tables	vi
List of Figures	vii
Acknowledgements	viii
CHAPTER 1. INTRODUCTION	1
1.1 Overview of Problem	1
1.2 Overview of Research	2
1.3 References	4
CHAPTER 2. LITERATURE REIEW	6
2.1 Introduction	6
2.2 Definition and Measurement of Intergenerational Exchanges	6
2.3 Theories of Intergenerational Exchanges	12
2.4 Empirical Findings on Intergenerational Exchanges	19
2.5 Limitations of Existing Studies	34
2.6 References	37
CHAPTER 3. STUDY 1	53
“Discrepancy in Reports of Intergenerational Exchanges: Within- and Between-Family Differences”	
Abstract	53
3.1 Significance of Research	54
3.2 Background and Literature Review	54
3.3 Research Hypotheses	59
3.4 Methods	59
3.5 Results	65
3.6 Discussion	68
3.7 References	74
CHAPTER 4. STUDY 2	93
“Agreement between Aging Parents’ Bequest Intention and Middle-Aged Children’s Expectation”	
Abstract	93
4.1 Significance of Research	94
4.2 Background and Literature Review	95
4.3 Research Hypotheses	100
4.4 Methods	101
4.5 Results	106
4.6 Discussion	109
4.7 References	114

TABLE OF CONTENTS (CONT.)

CHAPTER 5. STUDY 3 123
 “The Structure of Intergenerational Exchanges of Middle-Aged Adults with Their Parents
 and Parents-In-Law in Korea”

 Abstract 123
 5.1 Significance of Research 124
 5.2 Background and Literature Review 125
 5.3 Research Hypotheses 130
 5.4 Methods 131
 5.5 Results 136
 5.6 Discussion 139
 5.7 References 144

LIST OF TABLES

CHAPTER 3. STUDY 1

- Table 3.1 Descriptive Summary for Participants' Individual Characteristics
- Table 3.2 Descriptive Summary for Participants' Dyadic and Family Characteristics
- Table 3.3 Reports of Support Exchanges between Generations
- Table 3.4 Models for Dyadic Discrepancies in Reports of Downward Exchanges
- Table 3.5 Models for Dyadic Discrepancies in Reports of Upward Exchanges
- Table 3.6 Model 1 for Dyadic Discrepancies in Reports of Downward Exchanges by Type of Support
- Table 3.7 Model 1 for Dyadic Discrepancies in Reports of Upward Exchanges by Type of Support
- Table 3.8 Model 2 for Dyadic Discrepancies in Reports of Downward Exchanges by Type of Support
- Table 3.9 Model 2 for Dyadic Discrepancies in Reports of Upward Exchanges by Type of Support
- Table 3.10 Model 3 for Dyadic Discrepancies in Reports of Downward Exchanges by Type of Support
- Table 3.11 Model 3 for Dyadic Discrepancies in Reports of Upward Exchanges by Type of Support

CHAPTER 4. STUDY 2

- Table 4.1 Individual and Dyadic Characteristics of Participants
- Table 4.2 Frequency of Parents' and Children's Expectations on Inheritance
- Table 4.3 Multilevel Models to Predict Expectations on Inheritance
- Table 4.4 Logistic Regression Model to Predict Dyadic Correspondence

CHAPTER 5. STUDY 3

- Table 5.1 Descriptive Summary for Covariates
- Table 5.2 Model Fits of Latent Class Models
- Table 5.3 Membership and Item Response Probabilities of 5-Class Model
- Table 5.4 Odds Ratios for Effects of Covariates on Latent Class Membership

LIST OF FIGURES

CHAPTER 3. STUDY 1

- Figure 3.1 Structure of the Three-Generation Family in This Study
- Figure 3.2 Effects of Generation Location on Dyadic Discrepancies in Downward Exchanges (Practical Assistance and Financial Support)
- Figure 3.3 Effects of Generation Location on Dyadic Discrepancies in Upward Exchanges (Emotional Support, Practical Assistance, and Listening)
- Figure 3.4 Effects of Positive and Negative Relationship (Family Means) on Dyadic Discrepancies in Downward Exchanges (Overall Support)

CHAPTER 5. STUDY 3

- Figure 5.1 Item Response Probabilities of 5-Class Model

ACKNOWLEDGEMENTS

I would never have been able to finish my dissertation without the guidance of my committee members, help from friends, and support from my family. I am deeply grateful to so many people who have assisted me throughout my journey to complete the doctoral studies.

I want to express my heartfelt gratitude to my advisor, Dr. Steven Zarit for his excellent guidance, caring, patience, and providing me with an excellent atmosphere for doing research. I'm so lucky to have him as a mentor. Also, I would like to thank my wonderful lab mates, Jeong Eun Lee, Amanda Leggett, Allison Reamy, MaryJon Barrineau, and Yin Liu. Finally, I would like to thank my parents, elder sister, and younger brother. They were always supporting me and encouraging me with their best wishes.

.....

Study 1 and Study 2 were supported by a grant R01 AG027769, "*The psychology of intergenerational transfers*" (PI: Karen L. Fingerman, PhD) from the National Institute of Aging and a grant K99 AG029879, "*Promoting well-being across adulthood: The role of conflict avoidance*" (PI: Kira S. Birditt, PhD) from the MacArthur Network on Transitions to Adulthood (Frank Furstenberg, Director). Study 3 was supported by a grant KRF-99-042-D00174, "*Successful midlife development: Mental health and work/family life course in Korea and the United States*" (PI: Gyounghae Han, PhD) from National Research Foundation of Korea.

CHAPTER 1. INTRODUCTION

1.1 Overview of Problem

The parent-child relationship is central in adults' lives. A substantial literature has suggested that parents and their adult children typically remain very involved with one another over the life course (Hogan & Eggebeen, 1995; Rossi & Rossi, 1990; Schoeni & Ross, 2005). Adults list parents and children as key members of their social networks as well as major sources of social support in times of need (Antonucci & Akiyama, 1987; Hagestad, 2000). One of the potentially most important domains that characterize the parent-adult offspring relationships is the support and assistance that is exchanged between them. Researchers have paid attention to these exchanges as a critical process for meeting everyday needs as well as sustaining the bonds between generations (Allen, Blieszner, & Roberto, 2000; Lye, 1996; Silverstein & Giarrusso, 2010; Swartz, 2009; Zarit & Eggebeen, 2002). They also may provide a foundation of reciprocal obligation that becomes important in times of crisis or when long term help is needed, such as caring for an older adult with disabilities (Henretta, Hill, Soldo, & Wolf, 1997; Karantzas, Evans, & Foddy, 2010; Silverstein, Conroy, Wang, Giarrussi, & Bengtson, 2002). Intergenerational exchanges are not only the outcome of individual familial experiences across the life course but also an important context for both parents' and children's well-being in later years (Antonucci, Langfahl, & Akiyama, 2004; Davey, Janke, & Savla, 2004).

Although many studies have delineated patterns of support exchanged between generations and the conditions under which parents and adult children are most likely to engage in exchanges (Lye, 1996; Swartz, 2009), most research on intergenerational support has overlooked *families* as an important context for intergenerational support. In examining intergenerational exchanges in adulthood, prior studies have focused on *individuals* from one generation (e.g., parent and offspring) or exchanges between *individual parent-adult offspring*

dyads, ignoring other relationships within a family system and characteristics of the family itself. As family systems theory and life course perspectives posit (Cox & Paley, 1997; Elder, 1994; Hagestad, 1990), a family reflects a constellation of individual parent-child relationships, each potentially affected by the qualities and characteristics of the others. Although previous studies have identified various parents' or children's characteristics as predictors of intergenerational exchanges, a family systems framework would emphasize that the importance of the characteristics of any particular individual (e.g., parent or child) as predictors of support may be modified by the characteristics of other family members within a family (e.g., other children or parents) (Davey et al., 2004). In addition, as prior work about child and adolescent development has shown, exchanges of support between parent-adult children dyads as a subsystem of a whole family can affect and be affected by other subsystems (e.g., marital relationship of parents and children and sibling relationships) (Fingerman & Bermann, 2000). Therefore, intergenerational support between parents and adult children needs to be understood in the context of the family system.

1.2 Overview of Research

Based on family systems theory and life course perspectives, this dissertation focuses on intergenerational exchanges in a family context. The dissertation comprises three papers that provide complementary perspectives on support and exchanges within families. The first two studies explore the role of discrepancies of family members' perspectives on intergenerational support to understand how parents and adult children view their family relations and exchanges of support and assistance. *Study 1* investigates discrepancies in reports of intergenerational exchanges across three generations within the same families. Using 929 parent-child dyads from three-generation families, this study examines how dyadic discrepancies in reports of support exchanged vary both within and between families, and what characteristics explain the two types

of variation (i.e., within- and between-family differences) in dyadic discrepancies in reports of support exchanges. *Study 2* extends the investigation of discrepancies by including an important but overlooked issue - inheritance. This study examines the agreement between an aging parent's intention of leaving a bequest and his/her middle-aged offspring's expectation of receiving an inheritance. *Study 3* examines the patterns of intergenerational support that adult children give and receive with both parents and parents-in-law to understand how exchanges of support with multiple family members (e.g., parents and parents-in-law) are associated with marital relationships of offspring as another subsystem within the family system. This study also considers the cultural context for intergenerational exchanges by utilizing data from married adults in Korea, where intergenerational obligations and exchanges have been based until very recently on strong patriarchal normative expectations.

1.3 References

- Allen, K. R., Blieszner, R., & Roberto, K. A. (2000). Families in the middle and later years: A review and critique of research in the 1990s. *Journal of Marriage and the Family*, 62, 911-926. doi:10.1111/j.1741-3737.2000.00911.x
- Antonucci, T. C., & Akiyama, H. (1987). Social networks in adult life and a preliminary examination of the convoy model. *Journal of Gerontology*, 42, 519-527.
- Antonucci, T. C., Langfahl, E. S., & Akiyama, H. (2004). Relationships as outcomes and contexts. In F. R. Lang & K. L. Fingerman (Eds.), *Growing together: Personal relationships across the lifespan* (pp. 24-44). New York: Cambridge University Press. doi:10.1017/CBO9780511499852
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Reviews of Psychology*, 48, 243-267. doi:10.1146/annurev.psych.48.1.243
- 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: Springer.
- Elder, G. H. (1994). Time, human aging, and social change: Perspectives on the life course. *Social Psychology Quarterly*, 57, 4-15.
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *International Journal of Aging and Human Development*, 51, 5-29.
- Hagestad, G. O. (1990). Social perspectives on the life course. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (3rd ed., pp. 151-168). San Diego, CA: Academic Press.
- Hagestad, G. O. (2000). Adult intergenerational relationships. *Generations and Gender Programme: Exploring future research and data collection options* (pp. 125-143). New York and Geneva: United Nations.
- Henretta, J. C., Hill, M. S., Li, W., Soldo, B. J., & Wolf, D. A. (1997). Selection of children to provide care: The effect of earlier parental transfers. *Journal of Gerontology*, 52B, 110-119. doi:10.1093/geronb/52B.Special_Issue.110

- Hogan, D. P., & Eggebeen, D. J. (1995). Sources of emergency and routine assistance in old age. *Social Forces*, 73, 917-936. doi:10.2307/2580552
- Karantzas, G. C., Evans, L., & Foddy, M. (2010). The role of attachment in current and future parent caregiving. *Journal of Gerontology: Psychological Sciences*, 65B, 573-580. doi:10.1093/geronb/gbq047
- Lye, D. N. (1996). Adult child-parent relationships. *Annual Review of Sociology*, 22, 79-102. doi:10.1146/annurev.soc.22.1.79
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Schoeni, R. F., & Ross, K. E. (2005). Material assistance from families during the transition to adulthood. In R. A. Settersten, Jr., F. F. Furstenberg, Jr., & R. G. Rumbaut (Eds.), *On the frontier of adulthood: Theory, research, and public policy* (pp. 396-416). Chicago: University of Chicago Press.
- Silverstein, M., & Giarrusso, R. (2010). Aging and family life: A decade review. *Journal of Marriage and Family*, 72, 1039-1058. doi:10.1111/j.1741-3737.2010.00749.x
- Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., & Bengtson, V. L. (2002). Reciprocity in parent-child relations over the adult life course. *Journals of Gerontology: Social Sciences*, 57B, S3-S13. doi:10.1093/geronb/57.1.S3
- Swartz, T. T. (2009). Intergenerational family relations in adulthood: Patterns, variations, and implications in the contemporary United States. *Annual Review of Sociology*, 25, 191-212. doi:10.1146/annurev.soc.34.040507.134615
- Zarit, S. H., & Eggebeen, D. J. (2002). Parent-child relationships in adulthood and later years. In M.H. Bornstein (Ed.), *Handbook of parenting, Vol. 1: Children and parenting* (2nd ed., pp. 135-161). Mahwah, NJ: Lawrence Erlbaum Associates.

CHAPTER 2. LITERATURE REVIEW

2.1 Introduction

Significant attention has been given in recent years to the intergenerational support between parents and adult children, and research has delineated the patterns of intergenerational exchanges and examined determinants and consequences of the patterns. This chapter will review various theories and empirical findings to explain intergenerational support between parents and adult children. First, the concept and measurement issues of intergenerational exchanges will be discussed. Second, various theories that have been used to guide research on intergenerational exchanges will be discussed. Third, empirical findings in the literature about intergenerational exchanges will be presented. Finally, problems and limitations of the current literature will be examined.

2.2 Definition and Measurement of Intergenerational Exchanges

In general, *intergenerational exchanges* refer to the giving and receiving of various forms of assistance and support among family members of different generations (Silverstein, 2006; Zarit & Eggebeen, 2002). Although this definition seems straightforward, there are substantial differences in how to define and measure “assistance” or “support” exchanged, depending on a researcher’s interests and disciplines. In this section, I review various dimensions of social support and related measurements that are mentioned in the literature and discuss research gaps in current concepts or measurement approaches to intergenerational exchanges.

2.2.1 Dimensions of Support

Several investigators have described *multidimensional* models of social support (Barrera, 1986; Heller, Swindle, & Dusenbury, 1986; Schaefer, Coyne, & Lazarus, 1981; Tardy, 1985; Thoits, 1982; Vaux, 1988). Although the construct of social support has been operationalized in a variety of ways, its basic underlying dimensions are: (1) *structural*, (2) *functional*, and (3)

appraisal components of support (Antonucci, 1990; Pierce, Sarason, Joseph, & Henderson, 1996).

Structural dimension of support. The structural component of support describes the composition of the social network and the availability of people in the network who may help the individual (Barrera, 1986; Seeman & Berkman, 1988; Vaux, 1988). The structural properties of networks include the size of network, the proximity of others, frequency of social contact, and the type of relationship (e.g., spouse, confidant, relative, and friend). Although these indicators are not perceived as direct measures of social support, they are used with the rationale that available social ties could potentially serve as “social support resources” (Barrera, 1986; Sandler, 1980).

When applied to older parents, the structural aspect of intergenerational support includes the number of living children, their gender, their geographic proximity, and the frequency of contact. Although prior studies have shown that these structural characteristics are associated with greater availability of social support for older parents from adult children (Crimmins & Ingegneri, 1990; Eggebeen, 1992; Hoyert, 1991; Silverstein & Litwak, 1993), they do not provide information concerning actual support provided and the effects (Sarason, Sarason, & Pierce, 1990; Uchino, 2009). Accordingly, most current approaches on intergenerational exchanges tend to examine the content of, and satisfaction with exchanges (Umberson, 1992), rather than considering only the frequency of contact between parents and offspring (Lee, 1979; Mancini, 1979; Ward, 1985) or the mean distance to children (Aldous & Klien, 1991). In empirical studies, these structural features are often regarded as familial contexts (or constraints) for support exchanges between older parents and adult children, rather than support exchanged itself (Davey, Janke, & Savla, 2004).

Functional dimension of support. Functional components of support refer to the *type* and *amount* of support exchanged. They reflect the direct measures of actual support given to and received from others.

It is often found that researchers, depending on their academic disciplines, differ considerably in the types of support that they are interested in. For example, economic literatures have focused on exchanges of financial resources across generations, such as money and inheritance (Altonji, Hayashi, & Kotlikoff, 1997; Bernheim, Shleifer, & Summers, 1985; Boaz, Hu, & Ye, 1999; McGarry, 1999), whereas psychologists tend to focus on supportive exchanges between parents and children, such as emotional support (Antonucci, 2001; Barrera, 1986; Tardy, 1985; Vaux, 1988; Wills & Shinar, 2000).

Although the types of support preferred and proposed by researchers differ substantially, most distinguish between two general forms of support, *instrumental* and *emotional* support (Rossi & Rossi, 1990; Sarason et al., 1990; Vaux, 1988). This distinction is based on the basic *function* of support. A variety of specific types of support reflect the contents/resources given and received to achieve these two functions (Shumaker & Brownell, 1984).

In general, instrumental support includes practical and tangible forms of support, such as help with personal care, household chores, providing goods or money (material aid or financial assistance) and providing information, making suggestions, and clarifying issues (advice and guidance). Emotional support includes meeting needs for love and affection, esteem and identity, and belonging and companionship. However, this dichotomy (emotional vs. instrumental) may not always be clear, because some behaviors or resources in exchanges may serve several functions simultaneously (Pierce et al., 1996; Vaux, 1988).

Regarding the typology of specific support, several types of social support have been proposed by researchers. For example, Vaux (1988) proposed six types of support: emotional

support, validation, advice/guidance, practical assistance, financial/material support, and socializing, focusing on *supportive behaviors*. In contrast, emphasizing social support as an interpersonal transaction, Foa and Foa (1974) proposed six types of interpersonal resources: love (an expression of affectionate regard, warmth, or comfort), status (an evaluative judgment conveying high or low prestige, regard, or esteem), information (any advice, opinions or instructions), money (any coin or token that has some standard of exchange value), goods (any products or objects), and services (activities on the body or belonging to the individual).

Appraisal dimension of support. While the structural and functional dimensions of support deal with the *objective* characteristics of support, the appraisal dimension represents the *subjective* evaluation of support. In general, the appraisal component incorporates two dimensions: perceived *availability* and *adequacy* of support (Barrera, 1986).

Regarding perceived availability of support, social support literatures have long emphasized the distinction between *perceived* and *received* support (Barrera, 1986; Uchino, 2009). While received support represents support that a person *actually* received during some specified time period, perceived support focuses on individuals' confidence/belief that adequate support would be available if the need arises, which is also called as anticipated support (Krause, 1997). Evidence suggests that the perceived availability of support has proved to be the most consistent and strongest predictor of health outcomes, compared to structural and functional features of support (Krause, 1997; Uchino, 2004; Whethington & Kessler, 1986).

However, use of the perceived/anticipated support has some limitations. First, based on the fact that perceived support appears to be stable across time and situations (Pierce et al., 1996), some scholars raise a concern that perceived support may represent psychological elements, such as a personality trait, self-esteem, and personal coping skills, or reflect the history of supportive (or unsupportive) relationship with parents or children (Antonucci, 2001; Sarason, Levine,

Basham, & Sarason, 1983; Vaux, 1988; Von Dras, Williams, Kaplan, & Siegler, 1996). Second, perceived support as a potential source of assistance in *times of need* (e.g., safety net of kin support) can be fundamentally different from routine and non-crisis assistance exchanged between parents and adult children (Hogan, Eggebeen, & Clogg, 1993).

Whether older parents' expectations of assistance from children are related to the actual support received from children shows mixed results. While Peek et al. (1998) reported parents' expectations for support from adult children are related to the amount of care received from children, Eggebeen and Davey (1998) showed that the perceived safety net of older adults is not related to the likelihood of getting assistance from children, although they are still likely to receive assistance in times of need.

In addition, the appraisal process of support includes evaluation of the *adequacy* of exchanged support, that is, satisfaction with received support. Evidence suggests that the evaluation of the adequacy of support received may be more important than structural or functional features of support networks in the promotion of the individual's well-being (Heller et al., 1986). Chen and Silverstein (2000) showed that the effects of structural and functional aspects of intergenerational exchanges on the psychological well-being of older parents were fully mediated by the perceived quality of relationships with their children.

2.2.2 Critiques about Definition and Measurement of Intergenerational Exchanges

As reviewed in the prior section, there are various aspects of support to be considered for the description of intergenerational exchanges. Although there have been advances in the measurement of support exchanges across generations in available data, there are still gaps in the current literatures.

First, despite growing agreement on the types of support, there is no consensus on how to measure and quantify the amount of support exchanged (Davey et al., 2004; Lye, 1996). Even

for financial assistance that is relatively easy to quantify, there is considerable variation in the ways to measure the amount (e.g., total amount transferred, largest amount transferred, and number of transfers regardless of amount). In addition, measures differ substantially in the time frame over which to evaluate what is exchanged (e.g., past 1 month or past 3 months). In particular, research on intergenerational exchanges tends to rely on dichotomous indicators, such as whether a certain type of help was received/given or not (e.g., Laditka & Laditka, 2001), and aggregation of several types of support in a single item (e.g., Chatters, Taylor, Lincoln, & Schroepfer, 2002; Rossi & Rossi, 1990) rather than the frequency of exchanges or time spent on exchanges. The lack of consensus often makes comparisons of findings from studies using different methods for measuring exchanges difficult.

Second, the types of support covered (usually instrumental, financial, and emotional support) may not reflect developmental needs specific to each life stage (Heller, Price, & Hogg, 1990). Various life events and transitions that family members experience over the life span (such as marital transition, changes of health, and retirement) influence intergenerational exchanges in later years as well as require different types of support from family members. However, current measures do not measure support exchanged as the result of specific life transitions.

Third, social support literatures have long emphasized the importance of the appraisal process in support exchanges (Pierce et al., 1996; Vaux, 1988). However, focusing mainly on the types and amount of actual support exchanged between generations, studies on intergenerational exchange have not paid much attention to *the appraisal of support*. Although measurement of the actual support exchanged is helpful to describe the patterns of exchanges as it occurs, in examining various motives or consequences of the support exchanges, it is necessary to assess appraisals on support given and received (Bianchi, Hotz, McGarry, & Seltzer, 2008).

Beyond overall satisfaction with support or overall relationship quality between parents and adult children, appraisals about various aspects of support exchanged, such as amount, contents, or timing, would be needed.

Fourth, there is lack of a specific reference in questions about interactions and relationships. Although some studies assess support exchanges in a specific dyad (e.g., NSFH), many studies measure the amount of support exchanges without specifying the parent (mother or father) or the child within a family (Bianchi, Evans, Hotz, McGarry, & Seltzer, 2007; Lye, 1996). Because each parent may be involved in exchange with multiple children, and each adult child may be involved in exchange with more than one parent, it is useful to describe an individual's overall net provision or receipt of support. However, in order to explain the impact of adult child and parent characteristics, it is necessary to focus on exchanges between particular dyad members. In addition, given that decisions about support exchanges occur are made in a family system, beyond one dyad (parent-child), it may be useful to include possible many dyads within a family.

2.3 Theories of Intergenerational Exchanges

Several theoretical perspectives have informed research on parent-adult child relations. I begin by discussing two theories to explain intergenerational relations in adulthood: (1) *family systems theory* and (2) *a life course perspective*. Although these theories are not concerned primarily with intergenerational exchanges, they can provide broad frameworks to guide studies on support exchanges in adulthood. Then, I discuss two theories to characterize exchanges of support between adult children and their parents: (1) *altruism* and (2) *exchange/reciprocity*.

2.3.1 Theories on Intergenerational Relations in Adult Years

Family systems theory. Modern systems theories about families are derived from General System Theory (GST; Von Bertalanffy, 1968), which indicates both a transdisciplinary

field of study and a theoretical framework to explain the behavior of complex, organized systems of all sorts - from thermostats to missile guidance computers, and from amoebas to families (Whitchurch & Constantine, 1993). As applied to understanding the family as an organized system, the principles of General System Theory include (a) wholeness and order, referring to the idea that a whole is greater than the sum of its parts and has properties that cannot be understood simply from the combined characteristics of each part; (b) hierarchical structure, wherein systems are composed of subsystems that are really systems of their own; (c) adaptive self-stabilization, which refers to homeostatic features of systems that compensate for changing conditions in the environment by making coordinated changes in the internal workings of the system; and (d) adaptive self-organization, complementary to the notion of self-stabilization, referring to the ability of open, living systems to adapt to change in or challenge to the existing system (Cox & Paley, 1997).

A systems perspective highlights the idea that the family is a complex and integrated whole (Cox & Paley, 1997; Minuchin, 1988), wherein individual family members are necessarily interdependent, exerting a continuous and reciprocal influence on one another. Thus, any individual family member is inextricably embedded in the larger family system and can never be fully understood independent of the context of that system (Minuchin, 1985; Sameroff, 1994).

In addition, family systems theory emphasizes the family as a hierarchically organized system, comprised of smaller subsystems (e.g., parental, marital, and sibling) but also embedded within larger systems (e.g., the community). Interactions occur within and across these various levels. Subsystems are defined by boundaries, and family members learn rules for relating to one another within and across these subsystems allow for differentiation in the system. For effective family functioning, boundaries must be clear but flexible. That is, while family members must be allowed to function within subsystems without interference from other

members, they also must be able to access resources from the larger family unit as well (Minuchin, 1974).

Although family systems theory provides important principles to understand various family processes and intergenerational relations, work based on the family systems theory tends to focus on marital relationship or parent-child relationship in child and adolescent development (Cox & Paley, 1997; Fingerman & Bermann, 2000). Despite evidence that parents and siblings may continue to play an important role in adult life (Bengtson & Roberts, 1991; Rossi & Rossi, 1990), there is a dearth of research in normative samples examining adults' interactions with their families of origin.

Fingerman and Bermann (2000) indicated that the theoretical contribution of the family systems perspective involves a sense of how family members come to share beliefs about themselves and the world around them. Thus, by considering the family as an active system, family systems theory has emphasized the importance of within- and between-family differences, although these issues have been under-represented in the gerontological literature (Henretta, Soldo, & Van Voorhis, 2011).

A life course perspective. Many prior studies of intergenerational exchanges have been based on the life course perspective. The basic themes of the life course (Elder, 1994, 1998) state that human development (1) is dependent upon the exigencies of significant others with whom we have interpersonal relationships, (2) can be mapped over trajectories that are guided by the timing of lives (individual, family, and historical time), (3) is the product of long-term antecedent events, and (4) is shaped by cultural and historical contexts that give meaning to the roles and transitions experienced by individuals.

The life course perspective emphasizes that the life transitions and trajectories of individuals are inextricably *linked* to the transitions and trajectories of significant others (Elder,

1994; Hagestad, 1990). In addition, the life choices and options available to family members of one generation are influenced by the needs and preferences of those in other generations. Further, these family influences are seen as multidirectional and reciprocal (Elder, Johnson, & Crosnoe, 2003). For example, life transitions that adult children go through, such as marriage and birth of child, not only have important implications for adult children themselves but also elicit assistance from their parents. In addition, unexpected changes or crisis, such as divorce and illness may change ongoing patterns of parent-child relationship.

The life course perspective recognizes that human development is guided by multiple time clocks (biographical time, family time, and historical time) (Hagestad, 1986). Social roles, family events, turning points, and life course pathways are age-related. The impact that a particular family experience (e.g., divorce) has on a family member depends on the individual's age, generation, life stage, and historical context. For example, Burton's (1996) study on grandparenting among African women shows how intergenerational caregiving of grandmothers can be influenced by timing of family transitions.

The life course perspective emphasizes that human relationships reflect long-term dynamics, in which outcomes are dependent upon earlier events. It links the experiences of later life to earlier life stages and of older family members to younger ones. Thus, exploring intergenerational relations in later years often requires understanding decisions, actions and circumstances in younger years, involving both continuity and change. When striving to understand later-life relationships, such issues as reciprocity in family relationships, the life course perspective emphasizes to take a long-term view of the exchanges that have occurred rather than focusing on one point in time (usually, the present) (Silverstein, Conroy, Wang, Giarrusso, & Bengtson, 2002).

The life course perspective also stresses the cultural, societal, and historical contexts within which family development takes place. It assumes that the broader cultural, economic and political environments shape generational experiences and relations. Further, the type and level of exchanges between generations have a basis in cultural norms and are influenced by historical conditions. For example, an increase in labor-force participation of women may influence women's role in providing care in families (Sarkisian & Gerstel, 2004a).

In sum, family systems theory and a life course perspective offer valuable tools to understand intergenerational relations in adult years, especially for examining dynamics of intergenerational exchanges in various contexts. These perspectives help researchers to view intergenerational relations as a lifelong process in family, social, economic, and historical contexts.

2.3.2 Theories on Intergenerational Exchanges

Researchers have used theories that are more specific to exchanges to explain *why* people give support across generations. Understanding the motives underlying intergenerational exchange is necessary to predict not only exchange patterns in changing situations, such as the incidence, size, and quality of transfers, but also the effect of support exchanges (Kohli, 2003). I want to emphasize two theoretical explanations for intergenerational exchanges: 1) *altruism* and 2) *exchange/reciprocity*.

Altruism. The altruism theory assumes affection, or a moral duty, or obligation as a basis for providing help in situations of need. The provider of support considers the needs and preferences of a potential recipient of the transfers, no matter what the recipient does with the transfer (Becker, 1974, 1991). According to this theory, parents give their resources to children because they care about their children's well-being. In addition, through intergenerational transfers, parents would attempt to equalize wealth across parent and child generations, and to

equalize wealth across the different children in the family (Soldo & Hill, 1993). In this model, other's enhanced well-being becomes a direct outcome (utility) for the provider of support, although contributing to the well-being of others has positive repercussions for one's well-being as an indirect outcome (Batson, 1998; Becker, 1976).

Because researchers, in particular economists assume that if parental transfer is altruistically motivated, parental support flows to the most financially needy child, studies have focused on the association between inter-vivo transfer and child's income. In this regard, the empirical evidence is mixed; whereas some studies found little support for altruism (Altonji, Hayashi, & Kotlikoff, 1992), other research has showed that child's income is negatively associated with inter-vivo transfers (McGarry, 1999).

Exchange/reciprocity. *Exchange theory* posits that individuals tend to engage in actions to maximize their personal rewards and minimize their personal costs in relationships with significant others (Blau, 1964; Homans, 1961; Thibaut & Kelley, 1959). Thus, exchange theory emphasizes the self-interest motive in giving support.

In this model, parents give their resources to their adult children and grandchildren to obtain services from them in their later years (Bernheim et al., 1985; Cox, 1987; Cox & Rank, 1992; Kotlikoff & Morris, 1989). In addition, investments in children are viewed as an alternative to investments in private markets to reduce the risk of having unmet health and economic needs in later life (Pauly, 1990). Regarding the effect of exchanges, the theory asserts that older parents who receive more support than they provide are *overbenefited* and experience higher levels of well-being (Levitt, Guacci, & Weber, 1992; Mutran & Reitzes, 1984).

In contrast, sociological literatures have emphasized *the norm of reciprocity* in various social relationships (Gouldner, 1960). Reciprocity assumes that there is a normative principle that obligates the repayment of an incurred social or economic debt. According to reciprocity

theory, the *balance* between support provided and received would be more important for individuals' well-being (Walster, Berscheid, & Walster, 1973).

In terms of intergenerational relations, reciprocity theory assumes that family members who provide more assistance than they receive may perceive are *underbenefitted* and may perceive the supportive exchange as less desirable over time. In addition, the family member receiving assistance, as *overbenefitted*, may want to avoid feeling dependent on the support provider and seek to reciprocate with other forms of assistance, such as emotional support or advice, thus *balancing* the support exchange in an effort to reciprocate (Parrott & Bengtson, 1999). When the ability of older parents to reciprocate declines, they would lose power in exchanges with their children and may have to resort to invoking guilty feeling in them or complying with their wishes (Ikkink, Van Tilburg, & Knipscheer, 1999).

When the relationship is intimate and stable, such as the relationship between aged parents and their adult children, the rules of exchange allow for reciprocity to take place over a long period of time. In addition, the exchange occurred in later years may involve different types of transfers and support than initial exchanges. Antonucci and Jackson (1990) suggested the metaphor of *deposits* placed in a *support bank* that can be drawn on in future times of need in order to describe the lagged dynamics of reciprocity in intergenerational relationships. A support bank is a latent reserve of social support that parents build early in the family life stage by providing time, labor, and money to their children. The parents later can draw on this social capital in the form of social support from children when the parents develop age-related dependencies. This model highlights that, although at any one point in time exchanges between parents and children may appear to be unbalanced, reciprocity is observed when the balance of exchanges over the life of the relationship is tallied (Silverstein et al., 2002).

Regarding intergenerational exchanges, a majority of empirical studies have failed to find consistent evidence in support of one theory (altruism vs. exchange). Instead, researchers noted that the assumption of single motive for intergenerational exchanges is not valid, and that overlap and coexistence (or conflict) of several motives even within the same individual is more plausible (Kohli, 2003). In addition, given that parents and children exchange various types of support, such as emotional, practical, and financial support, *over the life course*, examination of the exchange patterns at one point may not be informative in understating long-term dynamics of intergenerational relations.

2.4 Empirical Findings on Intergenerational Exchanges

In this section, I review empirical findings on intergenerational exchanges within families in the adult years. I begin by describing overall patterns of intergenerational exchanges observed in prior studies. Then, I address the main antecedents of support exchanges for downward exchange (from parents to children) and upward exchange (from children to parents) respectively. Also, I review studies examining the consequences of intergenerational exchanges. Finally, some critiques for the current research will be offered. The review is intended to provide background that informs the selection of predictors and covariates in the three studies for this dissertation.

2.4.1 The Pattern of Exchanges between Parents and Adult Children

First of all, although gerontology research has often described older parents as recipients of intergenerational exchanges, the extant literature finds that parents typically give more assistance to their adult children than the children provide to them until they are very old or very ill (Eggebeen & Hogan, 1990; Fingerman, Pitzer, Chan, Birditt, Franks, & Zarit, 2010; McGarry, 1999; Soldo & Hill, 1993; Spitze & Logan, 1992). Similar findings exist in Europe (Albertini, Kohli, & Vogel, 2007).

The imbalanced pattern (i.e., more support is provided by elderly parents than by adult children) is most significant for financial support. McGarry and Schoeni (1995) reported that while almost one-third of parents reported giving a gift of \$500 or more to an adult child in the past 12 months, only 9% of adult children reported giving such a gift to their parents. In addition to financial support, parents are less likely to receive practical assistance from children than they give to their children, although practical assistance is more likely to flow in both directions than financial help (Soldo & Hill, 1993). For instance, drawing on the NSFH data, Eggebeen (1992) showed that parents are 1.7 times more likely to give than to receive routine kinds of help from children. Spitze and Logan (1992) also reported the imbalanced pattern in the exchanges of practical support; parents are 2.6 times more likely to give than receive help. Similarly, providing a residence often appears to be intended to meet the needs of the children rather than those of the parents. Parents often serve as a home base for adult children who are making transitions or who are experiencing problems (Aquilino, 1996; Sutor, Sechrist, & Pillemer, 2006; Ward & Spitze, 2007).

The downstream flow of exchanges may reflect the comparatively fewer needs of parents relative to their adult children, given adult children's life stages. However, it may also reflect that past patterns of exchanges tend to repeat themselves, persisting over time rather than exhibiting reciprocity, based on parents' altruism (Eggebeen & Hogan, 1990).

Second, although exchanges of emotional support are relatively frequent between parents and adult children, exchanges of practical assistance and financial support are *episodic* rather than continual (Eggebeen & Hogan, 1990; Hogan & Eggebeen, 1995; Lawton, Silverstein, & Bengtson, 1994; Silverstein & Bengtson, 1997). That is, it appears that parents and adult children are not involved in routine and intensive exchanges of financial and instrumental support. For example, using NSFH 1987-88 data, Hogan and Eggebeen (1995) reported that

over half of the adult children were classified as low exchangers, and 72% of the low exchangers were not involved in any exchanges. In addition, in the NSFH 1992-94 data, among adults with at least one living parent (or in-law), 42% of them provide no help to their parents at all (Sarkisian & Gerstel, 2004a). Other studies using different datasets also confirm high levels of emotional support and advice giving, but quite limited exchanges of practical assistance (Dietz, 1995; Jayakody, Chatters, & Taylor, 1993, Lawton et al., 1994; Spitze & Logan, 1990).

Despite the low level of regular financial and practical exchanges across generations, evidence exists that families provide assistance to one another in times of need, such as illness, divorce, widowhood, poverty, or problems with work, in life transitions, or in order to deal with shared problems when help is necessary (Eggebeen & Davey, 1998).

Third, regarding changes in intergenerational support over time, parental support to adult children is greatest when the children are in their early adult years; support then declines, but not in an entirely linear fashion (Cooney & Uhlenberg, 1992; Eggebeen & Hogan, 1990; Eggebeen & Wilhelm, 1995; Schoeni, 1997). The pattern of decline also varies by the type of support. For instance, using NSFH data, Cooney and Uhlenberg (1992) reported that children receive residential assistance from their parents during early adulthood. However, after age 30, this pattern declines rapidly. On the other hand, gifts and money given to adult children decrease less than other types of parental assistance. Moreover, they are the most common type of support after adult children reach age 50.

The changes of parental support over time appear to be related to children's life course characteristics (e.g., having a child and attending school) as well as parents' life course changes (e.g., changes in health and death of spouse) (Eggebeen & Hogan, 1990). Even after life course characteristics of both children and parents are considered, however, the decline in support from parents by children's age appears to remain significant (Cooney & Uhlenberg, 1992).

Support given to parents by adult children also decreases over time; however, the decline rate appears to be less pronounced than decline in support given to children (Eggebeen & Hogan, 1990). Accordingly, parents continue to give more to their adult children than they receive until very late in life, when growing needs for help with daily living and eventually caregiving (Wong, Kitayama, & Soldo, 1999).

2.4.2 Main Antecedents of Support Exchanges

Support from parents to children. Prior studies have established a number of factors influencing support given to children, including *parental resources, children's need, proximity, affection, and past exchanges*. The effects of the factors often vary, depending on the type of support given.

Parental resources. Parent's socioeconomic status (e.g., income, education and health) are the most consistent predictors of parental support to adult children (Altonji et al., 1992; Eggebeen, 1992; Eggebeen & Wilhelm, 1995; Henretta, Grundy, & Harris, 2002; Hogan et al., 1993; Rossi & Rossi, 1990; Silverstein & Waite, 1993). Particularly, it appears that the likelihood of giving financial support to children is driven by resources of parents (e.g., parents' income and education) rather than children's needs (McGarry & Schoeni, 1997). Using data combined from American data (HRS 1994) and British data (RPS 1988), Henretta et al. (2002) showed that higher socioeconomic status of parents is positively associated with money transfers to children. However, little evidence exists that parents in lower socioeconomic status are more or less likely to provide non-financial support, such as help with household chores and child care (Eggebeen, 1992; Henretta et al., 2002; Hoyert, 1991).

Also, poor health and functional disability of older parents are associated with a decreased provision of support to adult children, along with its increased receipt of support.

However, financial assistance and advice are least affected by declines in health and functional status of parents (Eggebeen, 1992; Silverstein & Bengtson, 1994; Wong et al., 1999).

Regarding parental marital status, widowhood of parents is also found to be associated with less support given to children (Eggebeen, 1992; Rossi & Rossi, 1990). However, other research has indicated that widowhood is not related to assistance to adult children after considering changes in the parents' socioeconomic status and health (Spitze & Logan, 1992).

Children's needs. Among various characteristics showing children's needs, children's life transitions, such as parenthood and the birth of subsequent children, are key predictors of support from parents. Specifically, having one's own child is most associated with an increase in routine assistance from parents (Eggebeen & Hogan, 1990; Hogan et al., 1993). McGarry and Schoeni (1997) also confirmed this by finding that children who have children of their own are more likely to receive financial support from older parents.

However, empirical studies on children's socioeconomic status have shown mixed results. Eggebeen and Wilhelm (1995) show that a child's poverty status, poor physical health, and unemployment are not associated with a greater likelihood of parental support. In contrast, McGarry and Schoeni (1997) found that children who are less well-off within a family are significantly more likely to receive a transfer from their parents. Moreover, they receive larger amounts of financial assistance than their siblings. This result seems to be consistent with altruistic theory.

In contrast to the income of adult children, prior studies consistently showed that education of adult children is positively associated with the likelihood of receiving financial support from parents (Cox & Rank, 1992; Lee & Aytac, 1998; McGarry & Schoeni, 1995). This positive association between children's education and financial transfer from parents is not consistent with altruism (e.g., helping the needy). In this regard, Lee and Aytac (1998) noted

that providing more financial support to children with higher education may reflect parental long-term investment in intergenerational relations.

Regarding children's marital status, evidence shows that parents provide less support when children are married than when they are single-never married, divorced, or widowed (Hogan et al., 1993; Lee & Aytac, 1998; McGarry & Schoeni, 1997; Sarkisian & Gerstel, 2007; Spitze, Logan, Deane, & Zerger, 1994; Suitors et al., 2006). This finding reflects less need for parental support given presence of a spouse.

Research has paid much attention to adult children's needs to explain why parents give support to adult children (altruism vs. exchange). As reviewed, the empirical findings seem to support both perspectives. While children in need (e.g., experiencing life transitions, low income, and divorced) are more likely to get support from their parents, children who are viewed as high achieving (e.g., high education attainment) are also likely to receive more support from parents (Fingerman, Miller, Birditt, & Zarit, 2009).

Proximity. The geographical distance between parents and their adult children places constraints on the content and frequency of exchanges (Lawton et al, 1994). Evidence indicates that distance affects the likelihood of provision of household assistance, but it is not associated with financial exchanges (Eggebeen, 1992; Hoyert, 1991; Suitors et al., 2006). However, McGarry and Schoeni (1997) showed the opposite finding; children who live closer to their parents are more likely to receive monetary transfers from their parents. However, parent-child coresidence is often likely to be the result of children's needs, rather than parents' needs at all ages (Aquilino, 1990; Ward, Logan, & Spitze, 1992); moreover, coresident children are more likely to be financially dependent on parents (Aquilino & Supple, 1991). Therefore, a close distance between parents and children may also reflect a result of children's needs.

Quality of parent-child relationship. Although residential or financial assistance from parents is mostly contingent on children's situation, need, and progress in the transition to adulthood, rather than affection between parents and children (Jarrett, 1985; McGarry & Schoeni, 1995; Ward & Spitze, 2007), some evidence indicates that the quality of relationships between parents and young adult children can influence support exchanges (Amato, Rezac, & Booth, 1995; Eggebeen, 2005; Parrott & Bengtson, 1999; Rossi & Rossi, 1990). Rossi and Rossi (1990) showed that the quality of the current relationship between parents and adult children has consistent effects in explaining help given from parents. Parrott and Bengtson (1999) also found that a history of affectionate ties between an adult child and his or her father increased the likelihood of receiving support from the father, although mothers provided instrumental support to children regardless of the level of past affection in the relationship.

Past exchanges. Less is known about the effect of past support exchanges on parents' provision of support to their children, compared to children's provision to their parents. The findings of the few studies that have examined this issue are mixed. In some cases, the findings suggest that parents are more likely to provide support to children who have themselves been a source of support (Hogan, Hao, & Parish, 1990). However, others have indicated that reciprocity plays only a small role in mothers' support to children (Levitt et al., 1992). Drawing on within-family data, Suitors et al. (2006) showed that mothers are more likely to provide support to children who had provided mothers with support, compared to other children within the same family. In fact, given that most studies used cross-sectional data, however, it is difficult to determine the effect of past support exchange.

Support from adult children to older parents. As reviewed in the prior section, parents are less likely to receive support from their children than to give until they are very old or very ill; therefore, support from adult children is mostly driven by parents' increasing needs as

they age. Besides *parental needs*, empirical studies have also examined several factors that are associated with support given to parents, including *children's availability, family size, proximity, affection, past exchanges, and norms of obligation*.

Parental needs. Not surprisingly, increasing *health problems* and *functional limitations* by parent's age are the key predictor of practical assistance by children (Shuey & Hardy, 2003; Silverstein, Parrott, & Bengtson, 1995; Silverstein et al., 2002; Spitze & Logan, 1990). Drawing on data from the HRS, Boaz et al. (1999) found that when parents need extensive help due to functional limitations, they are more likely to receive time and money from children. Also, several studies have shown that *parents without a spouse* receive more assistance from their adult children than do parents with a spouse (Dwyer & Coward, 1991; Eggebeen, 1992). Ikkink et al. (1999) reported that parents who have no partner or who have a partner with poor or moderate capacity to perform ADLs were more likely to receive practical support from their children than parents with partners who have no difficulty with ADLs. With regard to *parental income*, the effect of low income appears to be limited only to financial support from children (Couch, Daly, & Wolf, 1999). Also, drawing longitudinal data over a 5-year period, Eggebeen and Davey (1998) found that parents who experience more transitions or crises are likely to receive help from their children.

Children's availability. Adult children's availability to help is also an important determinant of support given to parents, including *income, education, health, and competing demands*. Although adult children's income is positively associated with levels of financial assistance, if adult children were assisting parents both financially and with time transfers, adult child's income was not found to be significant (Shuey & Hardy, 2003). Regarding child's education, past studies have shown mixed results. Some studies showed that adult children with higher education provide more support (McGarry & Schoeni, 1995; Stuifbergen, Van Delden, &

Dykstra, 2008), whereas other studies showed an opposite association (Couch et al., 1999; Henretta, Hill, Li, Soldo, & Wolf, 1997; Laditka & Laditka, 2001). Adult children in poor health are less likely to provide practical help to parents (Eggebeen & Hogan, 1990; Laditka & Laditka, 2001), although this does not appear to be linked to levels of financial assistance (Couch et al., 1999; Shuey & Hardy, 2003). In addition, regarding competing responsibilities, prior research has shown that daughters who are unemployed, unmarried, and have fewer minor children are more likely to provide parental care (Pezzin & Schone, 1999; Sarkisian & Gerstel, 2004a).

Family size. Although the number of children is often indicated as the strongest predictor of older parents' receiving practical assistance (Eggebee, 1992; Uhlenberg & Cooney, 1990), the effects of family size on exchanges differ, depending on how support exchanges are measured. In studies where received support was aggregated across all children from a parent's perspective, the family size was consistently associated with a greater probability that older parents would receive assistance with children (Eggebeen, 1992; Uhlenberg & Cooney, 1990). However, studies examined from a child's perspective have suggested a negative association between the number of siblings and the likelihood for adult children to provide support to parents (Wolf, Freedman, & Soldo, 1997). Thus, the greater the number of siblings an individual had, the lower the likelihood that individuals would be providing assistance to parents (Boaz et al., 1999; Connidis, Rosenthal, & McMullin, 1996; Sarkisian & Gerstel, 2004a).

Proximity. Research has indicated that distance remains a significant barrier to the exchange of aid given to children by parents, but less so for children giving aid to their parents (Hoyert, 1991). Perhaps children are more adept at using modern means of transportation and communication than their parents to reduce geographic barriers to rendering assistance. As for support to children, distance was only related to lower level of household assistance from children. Shuey and Hardy (2003) found that adult children are more likely to provide financial

assistance to more distant parents and personal care assistance to proximal parents. However, much less is known about the ways in which parents and children relocate to better provide support (Davey et al., 2004).

Relationship quality. Beyond parental needs and children's availability as objective conditions, relationship quality as subjective aspects of intergenerational relations also appear to have implications for support provided to parents (Stuifbergen et al., 2008; Whitbeck, Simons, & Conger, 1991; Whitbeck, Hoyt, & Huck, 1994). Whitbeck et al. (1991, 1994) found that affectional solidarity and filial concern of adult children were associated with greater provision of emotional support, transportation, and health care to parents, whereas relationship strain was not associated with support given to older parents. Parrott and Bengtson (1999) also found that children increasingly gave expressive and financial support to parents when a history of affectionate ties existed. According to Silverstein et al. (1995), intergenerational affection is a significant factor for daughters to provide support while filial obligation, expectation on inheritance, and frequency of contact are significant for sons.

Past exchanges. Because it requires the longitudinal design, few studies examined the impact of past exchanges on current support. Drawing on retrospective data, Henretta et al. (1997) found that past financial transfers given to children are good predictors of which child in a family becomes a caregiver for older parents. Using longitudinal data over a 27-year period, Silverstein et al. (2002) revealed that the greater financial transfers made by parents in the past were positively associated with the support that children later provided to them. This result indicates that current exchange may reflect long-term reciprocity in intergenerational exchanges.

Obligation. Since prior studies have often relied on parents' perspectives in examining support received by parents, most studies have examined the impact of parents' filial obligation on support received from children, rather than beliefs held by adult children. However, most

studies found little evidence that parents' beliefs concerning filial responsibility influenced the amount of support received from children (Chen & Adamchak, 1999; Eggebeen & Davey, 1998; Lee, Netzer, & Coward, 1994; Lee, Parish, & Willis, 1994). Rather, parents' filial responsibility expectations appear to be negatively related to their well-being (Lee, Netzer, & Coward, 1995; Seelbach & Sauer, 1977) due to their unmet high expectations.

In contrast, there is some evidence showing the direct associations between child's filial obligation and support given to parents (Parrott & Bengtson, 1999; Rossi & Rossi, 1990; Silverstein et al., 1995; Whitebeck et al., 1994; Lowenstein & Daatland, 2006). That is, when parental need for care increases, children with higher filial obligation are more likely to provide support (Silverstein, Gans, & Yang, 2006).

2.4.3 Variations in Intergenerational Exchanges based on Gender, Race and Family Structure

In the prior section, I reviewed the overall pattern of intergenerational exchanges and main antecedents; however, there are also subgroup variations in support exchanges across generations that should not be ignored, including *gender, race, and family structure*.

Gender. Gender is an important dimension that shapes the pattern of intergenerational exchanges. As the literature has emphasized women as a kin keeper within a family, adult child-mother relationships are closer than adult child-father relationships, particularly for daughters (Lawton et al., 1994; Lynott & Roberts, 1997; Marks, 1995; Silverstein & Bengtson, 1997). Emotional closeness between mothers and daughters has direct implications for the patterns of support exchanges. Based on the emotional closeness of women, daughters have more frequent contact with their parents and are more likely to be involved in support exchanges than sons (Eggebeen & Hogan, 1990; Lee, Spitze, & Logan, 2003). Mothers have been found to provide more instrumental and emotional support to children, especially, to daughters (Davey et al., 2004;

Spitze & Logan, 1990). In contrast, fathers were less likely to receive all types of assistance (Eggebeen, 1992). Longitudinally, mothers appear more likely to receive assistance from adult children (Eggebeen & Davey, 1998).

In addition, support exchanges between parents and adult children often reflect traditional gender-role expectations. Fathers are more likely to give financial support and mothers are more likely to provide childcare and emotional support (Eggebeen, 1992; Silverstein et al., 1995; Suitors et al., 2006). Although sons and daughters are equally involved in assistance to healthy parents, daughters provide more caregiving duties to very old parents than do sons (Laditka & Laditka, 2001). Chesley and Poppie (2009) found that women spend more time than men giving emotional support to parents or parent-in-law. Thus, individuals exchange support across generations in gendered patterns; women take on personal care and housework tasks, whereas men help with home maintenance and financial assistance. Recent work shows that both employment status and job characteristics, especially wages and self-employment, are important factors in explaining the gender gap in the help given to parents (Sarkisian & Gerstel, 2004a).

Family structure. Previous studies suggest that diversity in the family structure due to marital instability influences the configuration of intergenerational support exchanges as well as parent-child bonds. Overall, consensus exists that parental marital instability has deleterious effects on transfers of support across generations (Cooney & Uhlenberg, 1990; DeJong-Gierveld & Dykstra, 2002; Pezzin & Schone, 1999; White, 1992) whereas marital instability of adult children increases support exchanges between parents and children (Sarkisian & Gerstel, 2007; Laditka & Laditka, 2001; Lee & Aytac, 1998).

Divorce and remarriage of older parents appear to decrease transfer of support across generations, particularly for fathers (Amato et al., 1995; Aquilino, 1994; Davey, Eggebeen, & Savla, 2007; Hogan et al., 1993; Pezzin & Schone, 1999; Silverstein & Bengtson, 1997; White,

1992; Zill, Morrison, & Coiro, 1993). According to White (1992), divorced parents give less financial and instrumental support to their adult children than continuously married parents. Lower levels of financial support given to children appear to reflect fewer economic resources of those who are divorced compared with married parents, while lower levels of practical support, such as child care or transportation, result from lower quality parent-child relations in families who have experienced parental divorce (White, 1992).

Remarriage of parents is also associated with lower levels of support given to children both for financial support (Pezzin & Schone, 1999) and instrumental support (Davey et al., 2007), compared to continuously married parents. Also, stepparents and remarried biological parents are less likely to think that they should provide financial assistance to children during the transition to adulthood (Aquilino, 2005). Thus, although parental remarriage does widen networks of support, it does not seem to restore parental relations or support to the levels of continuously married parents (DeJong-Gierveld & Peeters, 2003; Swartz, 2009).

Filial obligations to support aging parents may also be affected by earlier parental divorce. Some research suggests that parents' marital transitions have a negative impact on support from children to parents (Lin, 2008a; Pezzin & Schone, 1999; Pezzin, Pollak, & Schone, 2008). Lin (2008a) finds that although adult children equally support their frail elderly mothers (whether they were divorced or widowed), they were less likely to support divorced fathers, and this help was contingent upon relationship quality.

Race/ethnicity. Although there has been presumption that African Americans and Latinos are more involved in regular exchange of instrumental supports than are white Americans (Allen, 1979), nationally representative surveys have found a more complicated picture. According to empirical data, African Americans, white Americans, and Latinos are involved in exchanges of different kinds of support. Specifically, white families exchange more

financial, material, and emotional support, whereas black and Latino families (particularly women) are more likely to be involved in practical help and housing support (Cox & Rank, 1992; Hogan et al., 1990, 1993; Kamo, 2000; McGarry & Schoeni, 1995; Sarkisian & Gerstel, 2004b; Sarkisian, Gerena, & Gerstel, 2007; Silverstein & Waite, 1993).

These differences are highly associated with social class, given that those with higher SES are more likely to exchange financial and emotional support; those with lower SES are more likely to exchange practical help (Berry, 2006; Jayakody, 1998; Sarkisian & Gerstel, 2004b). Thus, even though cultural differences regarding familism exist between racial minorities and whites (Dilworth-Anderson, Brummett, Goodwin, Williams, Williams, & Siegler, 2005), needs and available resources remain important in explaining the differences in the intergenerational exchanges (Burr & Mutchler, 1999; Sarkisian & Gerstel, 2004b; Sarkisian et al., 2007). Furthermore, white adult children are not only more likely than blacks or Latinos to receive financial transfers from their parents, and they are also likely to receive more money when they do (Lee & Aytac, 1998). Parental financial resources and class background account for most of the differences in racial and ethnic differences in intergenerational financial transfers (Berry, 2006).

In sum, for understating the variations by gender, family structure, and race/ethnicity in support exchanges across generations, it is important to consider the context of the broader social resources and patterns (e.g., changing social structure, cultural norm, and economic situations).

2.4.4 Consequences of Intergenerational Exchanges

Whereas substantial research has attempted to explain various antecedents determining the patterns of intergenerational exchanges, relatively little research has examined the effects of the intergenerational exchanges on health and well-being of individuals (Davey & Eggebeen, 1998). In addition, the literature has mainly examined well-being of older parents, although

caregiving research has been mainly examined adult children, focusing on negative effects of providing intensive care to aging parents (e.g., caregiving burden).

Researchers have examined the impact of exchanges of assistance between parents and children based on *social exchange theory* and *equity/reciprocity theory*. Empirical studies from cross-sectional data show mixed results. Some studies showed the negative effect of receiving support on older parents' well-being (Stoller, 1985), consistent with reciprocity, that is, the inability to reciprocate support received from children decreases the well-being of older parents. Other studies, however, have found the opposite results in that receiving support from children is more beneficial for the well-being of older parents (Levitt et al., 1992; Mutran & Reitzes, 1984). They feel being cared for by children is psychologically gratifying, while helping children is costly, which supports exchange theory. Also, some studies showed that there is not a significant association between support exchanges and older parents' well-being (Dwyer, Lee, & Jankowski, 1994; Lee & Ellithorpe, 1982; McCulloch, 1990).

Thus, in examining the effect of support exchange with children, the studies failed to offer consistent explanations for the effect of support exchanges. It may be due to the fact that cross-sectional data is not appropriate to examine long-term exchanges in parent-child relationships. In addition, the studies have examined the effect of support exchanges without considering situational reasons for the intergenerational support. Certain reasons may predispose certain parents/children to receive more intergenerational support than other families; this would affect both well-being of older parents and the support exchange pattern (Davey & Eggebeen, 1998).

Evidence from longitudinal data supports the notion that balanced exchange between aging parents and adult children is most beneficial for well-being of parents or children. However, the results also indicate that various factors should be considered together to

understand the impact of support exchange, such as contingent context and relationship quality. Drawing longitudinal data over a 3-year period, Silverstein et al. (1996) found that moderate amount of support received from adult children is beneficial, whereas receiving excessive support is harmful to older parents' mental health. Nonetheless, this pattern was more characteristic of widowed parents than married parents. Similarly, using 5-year period longitudinal data, Davey and Eggebeen (1998) found that over-benefited exchange is associated with higher levels of depression of older parents, although under-benefitting is not associated with any deleterious mental health consequences. Moreover, their result indicates that receiving contingent exchange has positive consequences, whereas non-contingent giving can have negative consequences around specific transitions in the lives of parents. In addition, although it examines children's well-being, Merz et al. (2009) reported that relationship quality moderates relationship between instrumental support received from parents and well-being of adult children over a period of 4 years. That is, in relationships of low quality, receiving instrumental support has a more negative impact on the well-being of adult children.

2.5 Limitations of Existing Studies

Although substantial research has offered information on intergenerational exchanges, the available studies also contain limitations.

First, exploring intergenerational relations lends itself to the life course perspective, which emphasizes aging as a lifelong process, the interdependence of linked family lives, and the broader cultural, economic and political environments that shape generational experiences and relations (Hagestad, 2003; Silverstein, 2004). However, many studies on intergenerational exchanges have depended on cross-sectional data. Although intergenerational exchanges are typically measured either as of a point or within a specified period, the current pattern of exchanges may be conditioned by the past history of the family (Whitbeck et al., 1991, 1994;

Parrott & Bengtson, 1999). Retrospective information about the early family relationship in cross-sectional data is likely to be influenced by their present relationships between parents and children. In addition, the past exchange pattern can be important in understating the pattern and motives of current support exchanges (Henretta et al., 1997; Silverstein et al., 2002). In particular, cross-sectional research designs may fail to detect reciprocity in intergenerational exchanges because reciprocity between family members may be lagged over the long term, as the concept of 'support bank' posits (Antonucci, 1990). Also, longitudinal data is needed to examine how intergenerational supporting system of parents and children responds to various life transitions of later life, such as changes in health and marital status over the life span (Shapiro, 2003).

Second, most research depends on information collected from a single family member, either a middle-aged adult or older parents (Bianchi et al., 2007; Freedman, Wolf, Soldo, & Stephen, 1991). They asked the respondent to report on the incidence and nature of their support exchanges with other generation as well as information on the other generation's characteristics. However, studies have indicated that there are discrepancies in reports on support exchanges between parents and children (Lin, 2008b; Mandemakers & Dykstra, 2008; Shapiro, 2004). In addition, there are many important dimensions that cannot be reported by proxy, such as how parents and children view their relationships and exchanges with each other, and the more general psychological well-being and family-related attitudes that they bring to these relationships. These dimensions may be essential information for examining the motives of transfers and the impact on individual well-being. Also, the fact that most studies on consequence of support exchanges examined well-being of one generation, particularly older parents' well-being, may be due to using reports from one informant (parents or children).

Taking both perspectives of parents and children is important in examining the effect of support exchanges.

Third, although transfers can be made in various types and in multiple directions, previous work has focused primarily on certain types of support, such as financial and practical support, and one direction of exchanges (upstream or downstream). Exchanges of instrumental and material support are important, but other types of support (e.g., giving advice, emotional support, and socializing) may also have implications for individual's well-being, as the social support literature has shown (Billari & Liefbroer, 2008). For instrumental/financial support, providing support can cause resource depletion for the providers, and receiving support can cause some dependency for the receivers. However, emotional support is likely to have a positive impact on the well-being of both providers and receivers, regardless of the direction of exchanges (Fingerman et al., 2009).

2.6 References

- Albertini, M., Kohli, M., & Vogel, C. (2007). Intergenerational transfers of time and money in European families: Common patterns, different regimes? *Journal of European Social Policy*, *17*, 319-334. doi:10.1177/0958928707081068
- Aldous, J., & Klein, D. M. (1991). Sentiment and services: Models of intergenerational relationships in mid-life. *Journal of Marriage and the Family*, *53*, 595-608. doi:10.2307/352736
- Allen, W. R. (1979). Class, culture and family organization: The effects of class and race on family structure in urban America. *Journal of Comparative Family Studies*, *10*, 301-313.
- 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. (1997). Parental altruism and inter vivos transfers: Theory and evidence. *Journal of Political Economy*, *105*, 1121-1166. doi:10.1086/516388
- Amato, P., Rezac, S., & Booth, A. (1995). Helping between parents and young adult offspring: The role of parental marital quality, divorce and remarriage. *Journal of Marriage and Family*, *57*, 363-374. doi:10.2307/353690
- Antonucci, T. C. (1990). Social supports and social relationships. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (3rd ed., pp. 206-227). San Diego, CA: Academic Press.
- Antonucci, T. C. (2001). Social relations: An examination of social networks, social support, and sense of control. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (5th ed., pp. 427-453). San Diego: CA, Academic Press.
- Antonucci, T. C., & Jackson, J. S. (1990) The role of reciprocity in social support. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 173-198). New York: John Wiley & Sons.
- Aquilino, W. S. (1990). The likelihood of parent-child coresidence: Effects of family structure and parental characteristics. *Journal of Marriage and Family*, *52*, 405-419. doi:10.2307/353035

- Aquilino, W. S. (1994). Later life parental divorce and widowhood: Impact on young adults' assessment of parent-child relations. *Journal of Marriage and Family*, *59*, 670-686. doi:10.2307/353602
- Aquilino, W. S. (1996). The returning adult child and parental experience and midlife. In C. D. Ryff & M. Seltzer (Eds.), *The parental experience at midlife* (pp. 423-458). Chicago, IL: University of Chicago Press.
- Aquilino, W. S. (2005). Impact of family structure on parental attitudes toward the economic support of adult children over the transition to adulthood. *Journal of Family Issues*, *26*, 143-167. doi:10.1177/0192513X04265950
- Aquilino, W. S., & Supple, K. R. (1991). Parent-child relations and parent's satisfaction with living arrangements when adult children live at home. *Journal of Marriage and the Family*, *53*, 13-27. doi:10.2307/353130
- Barrera, M., Jr. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, *14*, 413-445. doi:10.1007/BF00922627
- Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology*, Vol. 2 (4th ed., pp. 282-316). New York: McGraw-Hill.
- Becker, G. S. (1974). A theory of social interactions. *Journal of Political Economy*, *82*, 1063-1093. doi:10.1086/260265
- Becker, G. S. (1976). Altruism, egoism, and genetic fitness: Economics and socio-biology. *Journal of Economic Literature*, *14*, 817-826.
- Becker, G. S. (1981). *A treatise on the family*. Cambridge, MA: Harvard University Press.
- Bengtson, V. L., & Roberts, R. E. L. (1991). Intergenerational solidarity in aging families: An example of formal theory construction. *Journal of Marriage and the Family*, *53*, 856-870. doi:10.2307/352993
- Bernheim, B. D., Shleifer, A., & Summers, L. H. (1985). The strategic bequest motive. *Journal of Political Economy*, *93*, S151-S182. doi:10.1086/261351
- 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

- Bianchi, S. M., Evans, V. J., Hotz, V. J., McGarry, K., & Seltzer, J. A. (2007). An assessment of available data and data needs for studying intra- and inter-generational family relationships and behavior. *California Center for Population Research Working Papers, No. 20-07*. Los Angeles, CA: University of California-Los Angeles.
- Bianchi, S. M., Hotz, V. J., McGarry, K., & Seltzer, J. A. (2008). Intergenerational ties: Theories, trends, and challenges. In A. Booth, A. C. Crouter, S. M. Bianchi, & J. A. Seltzer (Eds.), *Intergenerational caregiving* (pp. 3-43). Washington, DC: The Urban Institute Press.
- Billari, F. C., & Liefbroer, A. C. (2008). Intergenerational ties: What can be gained from an international perspective? In A. Booth, A. C. Crouter, S. M. Bianchi, & J. A. Seltzer (Eds.), *Intergenerational caregiving* (pp. 53-66). Washington, DC: The Urban Institute Press.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: Wiley.
- Boaz, R. F., Hu, J., & Ye, Y. (1999). The transfer of resources from middle-aged children to functionally limited elderly parents: Providing time, giving money, sharing space. *The Gerontologist, 39*, 648-657. doi:10.1093/geront/39.6.648
- Burr, J. A., & Mutchler, J. E. (1999). Race and ethnic variation in norms of filial responsibility among older persons. *Journal of Marriage and the Family, 61*, 674-687. doi:10.2307/353569
- Burton, L. M. (1996). Age norms, the timing of family role transitions, and intergenerational caregiving among aging African American women. *The Gerontologist, 36*, 199-208. doi:10.1093/geront/36.2.199
- Chatters, L.M., Taylor, R. T., Lincoln, K. D., & Schroepfer, T. (2002). Patterns of informal support from family and church members among African Americans. *Journal of Black Studies, 33*, 66-85. doi:10.1177/002193470203300104
- Chen, S., & Adamchak, D. J. (1999). The effects of filial responsibility expectations on intergenerational exchanges in urban China. *Hallym International Journal of Aging, 1*, 58-68.
- Chen, X., & Silverstein, M. (2000). Intergenerational social support and the psychological well-being of older parents in China. *Research on Aging, 22*, 43-65. doi:10.1177/0164027500221003

- Chesley, N., & Poppie, K. (2009). Assisting parents and in-laws: Gender, type of assistance, and couples' employment. *Journal of Marriage and Family*, *71*, 247-262. doi:10.1111/j.1741-3737.2009.00597.x
- Connidis, I. A., Rosenthal, C. J., & McMullin, J. A. (1996). The impact of family composition on providing help to older parents: A study of employed adults. *Research on Aging*, *18*, 402-429. doi:10.1177/0164027596184002
- Cooney, T. M., & Uhlenberg, P. (1990). The role of divorce in men's relations with their adult children after mid-life. *Journal of Marriage and the Family*, *52*, 677-688. doi:10.2307/352933
- Cooney, T. M., & Uhlenberg, P. (1992). Support from parents over the life course: The adult child's perspective. *Social Forces*, *71*, 63-84. doi:10.1093/sf/71.1.63
- Couch, K. A., Daly, M. C., & Wolf, D. A. (1999). Time? Money? Both? The allocation of resources to older parents. *Demography*, *36*, 219-232. doi:10.2307/2648110
- Cox, D. (1987). Motives for private income transfers. *Journal of Political Economy*, *95*, 508-546. doi:10.1086/261470
- Cox, D., & Rank, M. R. (1992). Inter-vivos transfer and intergenerational exchange. *Review of Economics and Statistics*, *74*, 305-314. doi:10.2307/2109662
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Reviews of Psychology*, *48*, 243-267. doi:10.1146/annurev.psych.48.1.243
- Crimmins, E. M., & Ingegneri, D. G. (1990). Interaction and living arrangements of older parents and their children: Past trends, present determinants, future implication. *Research on Aging*, *12*, 3-35. doi:10.1177/0164027590121001
- Davey, A., & Eggebeen, D. J. (1998). Patterns of intergenerational exchange and mental health. *Journal of Gerontology: Psychological Sciences*, *53B*, P86-P95. doi:10.1093/geronb/53B.2.P86
- Davey, A., Eggebeen, D. J., & Savla, J. (2007). Parental marital transitions and instrumental assistance between generations: A within-family longitudinal analysis. In T. J. Owens & J. J. Sutor (Eds.), *Interpersonal relations across the life course* (pp. 221-242). New York: Elsevier. doi:10.1016/S1040-2608(07)12008-6
- 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: Springer.

DeJong-Gierveld, J., & Dykstra, P. A. (2002). Long-term rewards of parenting: Older adults' marital history and the likelihood of receiving support from adult child. *Ageing International, 27*, 49-69.

DeJong-Gierveld, J., & Peeters, A. (2003). Interweaving of repartnered older adults' lives with their children and siblings. *Ageing and Society, 23*, 187-205.

Dietz, T. L. (1995). Patterns of intergenerational assistance within the Mexican-American family: Is the family taking care of the older generation's needs? *Journal of Family Issues, 16*, 344-356. doi:10.1177/019251395016003006

Dilworth-Anderson, P., Brummett, B., H., Goodwin, P., Williams, S. W., Williams, R. B., & Siegler, I. C. (2005). Effect of race on cultural justifications for caregiving. *Journal of Gerontology: Social Sciences, 60*, S257-S262. doi:10.1093/geronb/60.5.S257

Dwyer, J. W., & Coward, R. T. (1991). A multivariate comparison of the involvement of adult sons versus daughters in the care of impaired parents. *Journal of Gerontology: Social Sciences, 46*, S259-S269.

Dwyer, J. W., Lee, G. R., & Jankowski, T. B. (1994). Reciprocity, elder well-being, and caregiver stress and burden: The exchange of aid in the family caregiving relationship. *Journal of Marriage and the Family, 56*, 35-43. doi:10.2307/352699

Eggebeen, D. J. (1992). Family structure and intergenerational exchanges. *Research on Aging, 14*, 427-447. doi:10.1177/0164027592144001

Eggebeen, D. J. (2005). Cohabitation and exchanges of support. *Social Forces, 83*, 1097-1110. doi:10.1353/sof.2005.0027

Eggebeen, D. J., & Davey, A. (1998). Do safety nets work? The role of anticipated help in times of need. *Journal of Marriage and the Family, 60*, 939-950. doi:10.2307/353636

Eggebeen, D. J., & Hogan, D. P. (1990). Giving between generations in American families. *Human Nature, 1*, 211-232. doi:10.1007/BF02733984

Eggebeen, D. J., & Wilhelm, M. O. (1995). Patterns of support given by older Americans to their parents. In S. A. Bass (Ed.), *Older and active: How Americans over 55 are contributing to society* (pp. 122-168). New Haven, CT: Yale University Press.

- Elder, G. H. (1994). Time, human aging, and social change: Perspectives on the life course. *Social Psychology Quarterly*, *57*, 4-15.
- Elder, G. H. (1998). The life course and human development. In R. Lerner (Ed.), *Handbook of child psychology, Vol. 1: Theoretical models of human development* (pp. 939-991). New York: Wiley.
- Elder, G. H., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of life course theory. In J. Mortimer & M. Shanahan (Eds.), *Handbook of the life course* (pp. 3-19). New York: Kluwer Academic/Plenum Publishers.
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *International Journal of Aging and Human Development*, *51*, 5-29.
- 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., Franks, M. M., & Zarit, S. H. (2010). 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
- Foa, U. G., & Foa, E. B. (1974). *Societal structures of the mind*. Oxford, England: Charles C Thomas.
- Freedman, V. A., Wolf, D. A., Soldo, B. J., & Stephen, E. H. (1991). Intergenerational transfers: A question of perspective. *The Gerontologist*, *31*, 640-647. doi:10.1093/geront/31.5.640
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological review*, *25*, 161-178. doi:10.2307/2092623
- Hagestad, G. O. (1986). Dimensions of time and the family. *American Behavioral Scientist*, *29*, 679-694. doi:10.1177/000276486029006004
- Hagestad, G. O. (1990). Social perspectives on the life course. In R. H. Binstock & L. K. George (Eds.), *Handbook of aging and the social sciences* (3rd ed., pp. 151-168). San Diego, CA: Academic Press.
- Hagestad, G. O. (2003). Interdependent lives and relationships in changing times: A life course view of families and aging. In R. A. Settersten, Jr. (Ed.), *Invitation to the life course: Toward new understandings of later life* (pp. 135-159). Amityville, NY: Baywood Publishing Company.

- Heller, K., Price, R. H., & Hogg, J. R. (1990). The role of social support in community and clinical interventions. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 482-507). New York: John Wiley & Sons.
- Heller, K., Swindle, R. W., & Dusenbury, L. (1986). Component social support processes: Comments and integration. *Journal of Consulting and Clinical Psychology, 54*, 466-470. doi:10.1037//0022-006X.54.4.466
- Henretta, J. C., Grundy, E., & Harris, S. (2002). The influence of socio-economic and health differences on parents' provision of help to adult children: A British-United State comparison. *Ageing and Society, 22*, 441-458. doi:10.1017/S0144686X02008735
- Henretta, J. C., Hill, M. S., Li, W., Soldo, B. J., & Wolf, D. A. (1997). Selection of children to provide care: The effect of earlier parental transfers. *Journal of Gerontology, 52B*, 110-119. doi:10.1093/geronb/52B.Special_Issue.110
- Henretta, J. C., Soldo, B. J., & Van Voorhis, M. F. (2011). Why do families differ? Children's care for an unmarried mother. *Journal of Marriage and Family, 73*, 383-395. doi:10.1111/j.1741-3737.2010.00813.x
- Hogan, D. P., & Eggebeen, D. J. (1995). Sources of emergency and routine assistance in old age. *Social Forces, 73*, 917-936. doi:10.2307/2580552
- Hogan, D. P., Eggebeen, D. J., & Clogg, C. C. (1993). The structure of intergenerational exchanges in American families. *American Journal of Sociology, 98*, 1428-1458. doi:10.1086/230194
- Hogan, D. P., Hao, L., & Parish, W. (1990). Race, kin networks, and assistance to mother-headed families. *Social Forces, 68*, 797-812. doi:10.2307/2579354
- Homans, G. C. (1961). *Social behavior: Its elementary forms*. New York: Harcourt, Brace & World.
- Hoyert, D. L. (1991). Financial and household exchanges between generations. *Research on Aging, 13*, 205-225. doi:10.1177/0164027591132005
- 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 Family, 61*, 831-844. doi:10.2307/354006

- Jarrett, W. H. (1985). Caregiving within kinship systems: Is affection really necessary? *The Gerontologist*, 25, 5-10. doi:10.1093/geront/25.1.5
- Jayakody, R. (1998). Race differences in intergenerational financial assistance: The needs of children and the resources of parents. *Journal of Family Issues*, 19, 508-533. doi:10.1177/019251398019005002
- Jayakody, R., Chatters, L. M., & Taylor, R. J. (1993). Family support to single and married African American mothers: The provision of financial, emotional and child care assistance. *Journal of Marriage and the Family*, 55, 261-276. doi:10.2307/352800
- Kamo, Y. (2000). Racial and ethnic differences in extended family households. *Sociological Perspectives*, 43, 211-219.
- 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. 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.
- Krause, N. (1997). Received support, anticipated support, social class, and mortality. *Research on Aging*, 19, 387-422. doi:10.1177/0164027597194001
- Laditka, J. N., & Laditka, S. B. (2001). Adult children helping older parents: Variations in likelihood and hours by gender, race, and family role. *Research on Aging*, 23, 429-456. doi:10.1177/0164027501234003
- Lawton, L., Silverstein, M., & Bengtson, V. L. (1994). Affection, social contact, and geographic distance between adult children and their parents. *Journal of Marriage and the Family*, 56, 57-68. doi:10.2307/352701
- Lee, E., Spitze, G., & Logan, J. R. (2003). Social support to parents-in-law: The interplay of gender and kin hierarchies. *Journal of Marriage and Family*, 65, 396-403. doi:10.1111/j.1741-3737.2003.00396.x
- Lee, G. R. (1979). Children and the elderly: Interaction and morale. *Research on Aging*, 1, 335-360. doi:10.1177/016402757913004
- Lee, G. R., & Ellithorpe, E. (1982). Intergenerational exchange and subjective well-being among the elderly. *Journal of Marriage and the Family*, 44, 217-224. doi:10.2307/351275

- Lee, G. R., Netzer, J. K., & Coward, R. T. (1994). Filial responsibility expectations and patterns of intergenerational assistance. *Journal of Marriage and the Family*, *56*, 559-565.
doi:10.2307/352867
- Lee, G. R., Netzer, J. K., & Coward, R. T. (1995). Depression among older parents: The role of intergenerational exchange. *Journal of Marriage and the Family*, *57*, 823-833.
doi:10.2307/353935
- Lee, Y. J., & Aytac, I. A. (1998). Intergenerational financial support among White, African Americans, and Latinos. *Journal of Marriage and the Family*, *60*, 426-441.
doi:10.2307/353859
- Lee, Y., Parish, W.L., & Willis, R. J. (1994). Sons, daughters, and intergenerational support in Taiwan. *American Journal of Sociology*, *99*, 1010-1041. doi:10.1086/230370
- Levitt, M. J., Guacci, N., & Weber, R. A. (1992). Intergenerational support, relationship quality, and well-being: A bicultural analysis. *Journal of Family Issues*, *13*, 465-481.
doi:10.1177/019251392013004005
- Lin, I. -F. (2008a). Consequences of parental divorce for adult children's support for their frail parents. *Journal of Marriage and Family*, *70*, 113-128. doi:10.1111/j.1741-3737.2007.00465.x
- Lin, I. -F. (2008b). Mother and daughter reports about upward transfers. *Journal of Marriage and Family*, *70*, 815-827. doi:10.1111/j.1741-3737.2008.00524.x
- Lowenstein, A., & Daatland, S. O. (2006). Filial norms and family support in a comparative cross-national context: Evidence from the OASIS study. *Ageing and Society*, *26*, 203-223.
doi:10.1017/S0144686X05004502
- Lye, D. N. (1996). Adult child-parent relationships. *Annual Review of Sociology*, *22*, 79-102.
doi:10.1146/annurev.soc.22.1.79
- Lynott, P. P., & Roberts, R. E. L. (1997). The developmental stake hypothesis and changing perceptions of intergenerational relations, 1971-1985. *The Gerontologist*, *37*, 394-405.
doi:10.1093/geront/37.3.394
- Mancini, J. (1979). Family relationships and morale among people 65 years of age and older. *American Journal of Orthopsychiatry*, *49*, 292-300. doi:10.1111/j.1939-0025.1979.tb02610.x
- Mandemakers, J. J., & Dykstra, P. A. (2008). Discrepancies in parent's and adult child's reports

- of support and contact. *Journal of Marriage and Family*, 70, 495-506.
doi:10.1111/j.1741-3737.2008.00496.x
- Marks, N. F. (1995). Midlife marital status difference in social support relationships with adult children and psychological well-being. *Journal of Family Issues*, 16, 5-28.
doi:10.1177/019251395016001002
- McCulloch, B. J. (1990). The relationship of intergenerational reciprocity of aid to the morale of older parents: Equity and exchange theory comparisons. *Journals of Gerontology: Social Sciences*, 45, S150-S155.
- 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: Measurement and the redistribution of resources within the family. *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:10.1093/geronb/52B.Special_Issue.82
- Merz, E. -M., Schiengel, C., & Schulze, H. -J. (2009). Intergenerational relations across 4 years: Well-being is affected by quality, not by support exchange. *The Gerontologist*, 49, 536-548. doi:10.1093/geront/gnp043
- Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. *Child Development*, 56, 289-302. doi:10.2307/1129720
- Minuchin, P. (1988). Relationships within the family: A systems perspective on development. In R. A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within the families* (pp. 7-26). Oxford, UK: Clarendon Press.
- Minuchin, S. (1974). *Families and family therapy*. Cambridge, MA: Harvard University Press.
- Mutran, E., & Reitzes, D. C. (1984). Intergenerational support activities and well-being among the elderly: A convergence of exchange and symbolic interaction perspectives. *American Sociological Review*, 49, 117-130. doi:10.2307/2095561
- Parrott, T. M., & Bengtson, V. L. (1999). The effects of earlier intergenerational affection, normative expectations, and family conflict on contemporary exchange of help and support. *Research on Aging*, 21, 73-105. doi:10.1177/0164027599211004

- Pauly, M. V. (1990). The rational nonpurchase of long-term care insurance. *Journal of Political Economy*, 98, 153-168. doi:10.1086/261673
- Peek, M. K., Coward, R. T., Peek, C. W., & Lee, G. R. (1998). Are expectations for care related to the receipt of care? An analysis of parent care among disabled elders. *Journal of Gerontology: Social Sciences*, 53B, S127-S136. doi:10.1093/geronb/53B.3.S127
- Pezzin, L. E., & Schone, B. S. (1999). Parental marital disruption and intergenerational transfers: An analysis of lone elderly parents and their children. *Demography*, 36, 287-297. doi:10.2307/2648053
- Pezzin, L. E., Pollak, R. A., & Schone, B. S. (2008). Parental marital disruption, family type, and transfers to disabled elderly parents. *Journal of Gerontology: Social Sciences*, 63B, S349-S358. doi:10.1093/geronb/63.6.S349
- Pierce, G. R., Sarason, B. R., Sarason, I. G., Joseph, H. J., & Henderson, C. A. (1996). Conceptualizing and assessing social support in the context of the family. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of social support and the family* (pp. 3-23). New York: Plenum Press.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Sameroff, A. J. (1994). Developmental systems and family functioning. In R. D. Parke & S. G. Kellan (Eds.), *Exploring family relationships with other social contexts* (pp. 199-214). Hillsdale, NJ: Erlbaum.
- Sandler, I. N. (1980). Social support resources, stress, and maladjustment of young children. *American Journal of Community Psychology*, 8, 41-52. doi:10.1007/BF00892280
- Sarason, B. A., Sarason, I. G., & Pierce, G. R. (1990). Traditional views of social support and their impact on assessment. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 9-25). New York: John Wiley & Sons.
- Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, 44, 127-139. doi:10.1037//0022-3514.44.1.127
- Sarkisian, N., & Gerstel, N. (2004a). Explaining the gender gap in help to parents: The importance of employment. *Journal of Marriage and Family*, 66, 431-451. doi:10.1111/j.1741-3737.2004.00030.x

- Sarkisian, N., & Gerstel, N. (2004b). Kin support among blacks and whites: Race and family organization. *American Sociological Review*, *69*, 812-837.
doi:10.1177/000312240406900604
- Sarkisian, N., & Gerstel, N. (2007). Till marriage do us part: Adult children's relationships with their parents. *Journal of Marriage and Family*, *70*, 360-376. doi:10.1111/j.1741-3737.2008.00487.x
- Sarkisian, N., Gerena, M., & Gerstel, N. (2007). Extended family integration among Euro and Mexican Americans: Ethnicity, gender and class. *Journal of Marriage and Family*, *69*, 40-54. doi:10.1111/j.1741-3737.2006.00342.x
- Schaefer, C., Coyne, J. C., & Lazarus, R. (1981). The health-related functions of social support. *Journal of Behavioral Medicine*, *4*, 381-406. doi:10.1007/BF00846149
- 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
- Seelbach, W. C., & Sauer, W. J. (1977). Filial responsibility expectations and morale among aged parents. *The Gerontologist*, *17*, 492-499. doi:10.1093/geront/17.5_Part_1.421
- Seeman, T. E., & Berkman, L. F. (1988). Structural characteristics of social networks and their relationship with social support in the elderly: Who provides support. *Social Science and Medicine*, *26*, 737-749. doi:10.1016/0277-9536(88)90065-2
- Shapiro, A. (2003). Later life divorce and parent-adult child contact and proximity: A longitudinal analysis. *Journal of Family Issues*, *24*, 264-285.
doi:10.1177/0192513X02250099
- Shapiro, A. (2004). Revisiting the generation gap: Exploring the relations of parent/adult-child dyads. *International Journal of Aging and Human Development*, *58*, 127-146.
doi:10.2190/EVFK-7F2X-KQNV-DH58
- Shuey, K., & Hardy, H. A. (2003). Assistance to aging parents and parent-in-law: Does lineage affect family allocation decisions? *Journal of Marriage and Family*, *65*, 418-431.
doi:10.1111/j.1741-3737.2003.00418.x
- Shumaker, S. A., & Brownell, A. (1984). Toward a theory of social support: Closing conceptual gaps. *Journal of Social Issues*, *40*, 11-36. doi:10.1111/j.1540-4560.1984.tb01105.x

- Silverstein, M. (2004). Intergenerational relations across time and place. In M. Silverstein & K. W. Schaie (Eds.), *Intergenerational relations across time and place: Annual review of gerontology and geriatrics, Vol. 24* (pp. xiii-xix). New York: Springer.
- 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: Academic Press. doi:10.1016/B9-78-012088-3/88250-0134
- Silverstein, M., & Bengtson, V. L. (1997). Intergenerational solidarity and the structure of adult child-parent relationships in American families. *American Journal of Sociology, 103*, 429-460. doi:10.1086/231213
- Silverstein, M., & Litwak, E. (1993). A task specific typology of intergenerational family structure in later life. *The Gerontologist, 33*, 258-264. doi:10.1093/geront/33.2.258
- Silverstein, M., & Waite, L. J. (1993). Are Blacks more likely than Whites to receive and provide social support in middle and old age? Yes, No, and maybe so. *Journal of Gerontology, 48*, 212-222.
- Silverstein, M., Chen, X., & Heller, K. (1996). Too much of a good thing? Intergenerational social support and the psychological well-being of older parents. *Journal of Marriage and the Family, 58*, 970-982. doi:10.2307/353984
- Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R., & Bengtson, V. L. (2002). Reciprocity in parent-child relations over the adult life course. *Journals of Gerontology: Social Sciences, 57B*, S3-S13. doi:10.1093/geronb/57.1.S3
- 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
- Silverstein, M., & Bengtson, V. L. (1994). Does intergenerational social support influence the psychological well-being of older parents? The contingencies of declining health and widowhood. *Social Science and Medicine, 38*, 943-957. doi:10.1016/0277-9536(94)90427-8

- Soldo, B. J., & Hill, M. S. (1993). Intergenerational transfers: Economic, demographic, and social perspectives. *Annual Review of Gerontology and Geriatrics, 13*, 187-216.
- Spitze, G., & Logan, J. R. (1992). Helping as a component of parent-adult child relations. *Research on Aging, 14*, 291-312. doi:10.1177/0164027592143001
- Spitze, G., Logan, J. R., Deane, G., & Zerger, S. (1994). Adult children's divorce and intergenerational relationships. *Journal of Marriage and the Family, 56*, 279-293. doi:10.2307/353100
- Stoller, E. P. (1985). Exchange patterns in the informal support networks of the elderly: The impact of reciprocity on morale. *Journal of Marriage and the Family, 47*, 335-342. doi:10.2307/352133
- Stuifbergen, M. C., Van Delden, J. J. M., & Dykstra, P. A. (2008). The implications of today's family structures for support giving to older parents. *Ageing and Society, 28*, 413-434.
- Suitor, J. J., Pillemer, K., & Sechrist, J. (2006). Within-family differences in mothers' support to adult children. *Journal of Gerontology: Social Science, 61B*, S10-S17. doi:10.1093/geronb/61.1.S10
- Swartz, T. T. (2009). Intergenerational family relations in adulthood: Patterns, variations, and implications in the contemporary United States. *Annual Review of Sociology, 25*, 191-212. doi:10.1146/annurev.soc.34.040507.134615
- Tardy, C. H. (1985). Social support measurement. *American Journal of Community Psychology, 13*, 187-202. doi:10.1007/BF00905728
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: John Wiley.
- Thoits, P. A. (1982). Conceptual, methodological and theoretical problems in studying social support as a buffer against life stress. *Journal of Health and Social Behavior, 23*, 145-159. doi:10.2307/2136511
- Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of our relationships*. New Haven, CT: Yale University Press.
- Uchino, B. N. (2009). Understanding the links between social support and physical health. *Perspectives on Psychological Science, 43*, 236-255. doi:10.1111/j.1745-6924.2009.01122.x
- Uhlenberg, P., & Cooney, T. M. (1990). Family size and mother-child relations in later life. *The Gerontologist, 30*, 618-625. doi:10.1093/geront/30.5.618

- Umberson, D. (1992). Relationships between adult children and their parents: Psychological consequences for both generations. *Journal of Marriage and the Family*, *54*, 664-674. doi:10.2307/353252
- Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York: Praeger.
- Von Bertalanffy, L. (1968). *General systems theory*. New York: Braziller.
- Von Dras, D. D., Williams, R. B., Kaplan, B. H., & Siegler, I. C. (1996). Correlates of perceived social support and equality of interpersonal relationships at mid-life. *International Journal of Aging and Human Development*, *43*, 199-217. doi:10.2190/M0GP-7R75-AQJ6-Q17H
- Walster, E., Berscheid, E., & Walster, G. W. (1973). New directions in equity research. *Journal of Personality and Social Psychology*, *25*, 151-176. doi:10.1037/h0033967
- Ward, R. A. (1985). Informal networks and well-being in later life: A research agenda. *The Gerontologist*, *25*, 55-61. doi:10.1093/geront/25.1.55
- Ward, R. A., & Spitze, G. (2007). Nestleaving and coresidence by young adult children: The role of family. *Research on Aging*, *29*, 257-277. doi:10.1177/0164027506298225
- Ward, R. A., Logan, J. R., & Spitze, G. (1992). The influence of parent and child needs on coresidence in middle and later life. *Journal of Marriage and the Family*, *54*, 209-221. doi:10.2307/353288
- Whethington, E., & Kessler, R. C. (1986). Perceived support, received support, and adjustment to stressful life events. *Journal of Health and Social Behavior*, *27*, 78-89. doi:10.2307/2136504
- Whitbeck, L. B., Hoyt, D. R., & Huck, S. M. (1994). Early family relationships, intergenerational solidarity, and support provided to parents by their adult children. *Journal of Gerontology*, *49*, S85-S94.
- Whitbeck, L. B., Simons, R. L., & Conger, R. D. (1991). The effects of early family relationships on contemporary relationships and assistance patterns between adult children and their parents. *Journal of Gerontology: Social Sciences*, *46*, S330-S337.
- Whitchurch, G. G., & Constantine, L. L. (1993). Systems theory. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K., Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 325-352). New York: Plenum Press.

- White, L. (1992). The effect of parental divorce and remarriage on parental support for adult children. *Journal of Family Issues*, *13*, 234-250. doi:10.1177/019251392013002007
- Wills, T. A., & Shinar, O. (2000). Measuring perceived and received social support. In S. Cohen, L. Gordon, & B. Gottlieb (Eds.), *Social support measurement and intervention: A guide for health and social scientists* (pp. 86-135). New York: Oxford University Press.
- Wolf, D. A., Freedman, V., & Soldo, B. J. (1997). The division of family labor: Care for elder parents. *Journal of Gerontology*, *52B*, 102-109. doi:10.1093/geronb/52B.Special_Issue.102
- Wong, R., Kitayama, K., & Soldo, B. J. (1999). Ethnic differences in time transfers from adult child to elderly parents: Unobserved heterogeneity across families. *Research on Aging*, *21*, 144-175. doi:10.1177/0164027599212002
- Zarit, S. H., & Eggebeen, D. J. (2002). Parent-child relationships in adulthood and later years. In M.H. Bornstein (Ed.), *Handbook of parenting, Vol. 1: Children and parenting* (2nd ed., pp. 135-161). Mahwah, NJ: Lawrence Erlbaum Associates.
- Zill, N., Morrison, D., & Coiro, M. (1993). Long term effects of parental divorce on parent-child relationships, adjustment and achievement in young adulthood. *Journal of Family Psychology*, *7*, 91-103. doi:10.1037//0893-3200.7.1.91

CHAPTER 3. STUDY 1

Discrepancy in Reports of Intergenerational Exchanges: Within- and Between-Family Differences

Abstract

Study 1 examined how dyadic discrepancies in reports of support that parents and their adult offspring exchanged with one another vary both within and between families, and what factors explain the within- and between-family variations of dyadic discrepancies. Data from 929 parent-child dyads nested in 458 three-generation families were analyzed. Using multilevel models, I examined within-family factors (e.g., generation location, gender composition, living arrangements, relative levels of family obligation and relationship quality) and between-family factors (e.g., race, size of family, and average levels of family obligation and relationship quality) to explain variations in dyadic discrepancies. There were substantial between-family differences as well as within-family differences in dyadic discrepancies in reports of support exchanges. For downward exchanges (from parent to child), both within-family factors (e.g., gender composition, child's family obligation, parent's negative relationship, and parent's and child's positive relationships) and between-family factors (e.g., average levels of positive and negative relationship) revealed significant effects on the dyadic discrepancies. However, for upward exchanges, only within-family factors (e.g., gender composition, coresidence, parent's family obligation, and parent's and child's positive relationships) were significant. Although discrepancies in reported support exchanges were mainly associated with dyad-specific characteristics, they also appear to be influenced by family emotional environments. Families with better relationships among family members tended to be more congruent in their perspectives about support given to offspring.

Keywords: Dyadic discrepancy, Support exchanges, Within-family differences, Between-family differences

3.1 Significance of Research

Although many studies on intergenerational relationships have delineated patterns of support exchanged between generations, one of the main critiques of this research is that it has relied on reports from one generation (parent or child), and often just a single person (Bianchi, Evans, Hotz, McGarry, & Seltzer, 2007). Information collected from single informants has been used to represent intergenerational relationships in families. However, evidence has shown that it makes a difference whether one looks at intergenerational relationships from the perspective of an older parent or an adult child (Aquilino, 1999). Thus, taking multiple perspectives of family members may yield a more comprehensive picture of intergenerational exchanges within the family system. Multiple informants, however, often do not agree when reporting on their intergenerational support exchanges (Ikkink, Van Tilburg, & Knipscheer, 1999). Although the observed discrepancies in these reports may be regarded as random error, family systems theory has suggested that discordant reports of the same events are a meaningful feature of family relationships and interactions (Cox & Paley, 1997). In particular, discrepancies between generations have importance in that differences in perspectives on how much support is given and received could become a source of strain and misunderstanding in the relationship and jeopardize future exchanges.

Prior studies have suggested that there are systematic discrepancies in reports of the amount of support exchanged between parents and children, and various factors of parents and offspring, such as structural and psychological characteristics, are associated with the discrepancies (Lin, 2008; Mandemakers & Dykstra, 2008; Shapiro, 2004). This study extends previous work by examining how dyadic discrepancies in reports of support exchanged vary both within and between families.

3.2 Background and Literature Review

3.2.1 Discrepancy in Reports of Intergenerational Exchanges

Empirical research has recognized that dyadic members within families have different views on their *relationships* (Aquilino, 1999; Lynott & Roberts, 1997). Studies that compared parents' and offspring's perceptions about intergenerational relationships have suggested that relying on reports from a single informant may produce biased results (Giarrusso, Feng, & Bengtson, 2004). For example, Aquilino (1999) found that parents consistently reported higher levels of closeness and lower levels of conflicts than their adult child reported. Similarly, Willson et al. (2006) showed that mothers' ambivalence toward their offspring was lower than that of their children. Such discrepancies observed in the ratings of intergenerational relationship have been viewed as providing support for the generational stake hypothesis, which posits that parents are more likely to emotionally invest in their children than children emotionally invest in their parents over the life spans (Bengtson & Kuypers, 1971).

Report discrepancies between generations have also been found with respect to *support exchanges*, which represent more *objective* aspects of intergenerational relations (Ikkink et al., 1999). In upward exchanges (from children to parents), most studies have found that adult children tend to report giving more support to parents than their parents reported receiving (Lin, 2008; Mandemakers & Dykstra, 2008; Shapiro, 2004). For downward exchanges (from parents to children), however, prior studies have shown mixed results, depending on the type of support. Mandemakers and Dykstra (2008) found that parents reported showing *more* interest than children reported, but they also tended to report giving *less* help with odd jobs than children reported receiving. Shapiro (2004) showed that parents tended to report giving *less* instrumental support (e.g., housework, help with errands) and *more* emotional support than children reported receiving.

Although there is a self-enhancement tendency to view one's own actions (e.g., giving support) in a more positive light than others' action (Krueger, 1998), the reporting discrepancies in intergenerational exchanges also appear to be systematically related to various characteristics of family members. For example, Lin (2008) and Shapiro (2004) showed that demographic and structural characteristics of parents and children (e.g., age, gender, health status, marital status, and geographic proximity) were associated with discrepancies in reports of exchanges. More recently, there is emerging evidence showing significant associations of discrepancies in reports of support exchanges with psychological factors that individual members reported toward their dyadic partner, such as family obligation, relationship quality, and relationship importance (Kim, Zarit, Eggebeen, Birditt, & Fingerman, 2011; Mandemakers & Dykstra, 2008). Thus, besides universal biases based on self-enhancement, discrepancies in reports of support exchanges may reveal unique characteristics of relationships between dyadic members.

3.2.2 Within- and Between-Family Differences in Reporting Discrepancy

Given that a family consists of multiple parent-child dyads, the observed variance of dyadic discrepancies in families may be divided into within- and between-family variations. Whereas within-family differences emphasize differentiating individual dyads from other dyads within the same family, between-family differences refer to how dyads of a family share characteristics and differentiate them from other families (Fingerman & Bermann, 2000). In examining discrepancies in reports of support exchanges, however, prior studies have focused on a single parent-offspring dyad within a family, and did not compare multiple dyads in a family (i.e., within-family differences) or families as a whole (i.e., between-family differences).

Within-family differences. In any given family system, certain individuals may be viewed as more important than others, certain individuals as more obligated to provide assistance to the family, and certain individuals as more competent than other individuals. Thus, within-

family differences address the variation in individual members' behavior in a family (Suitor, Pillemer, & Sechrist, 2006). Recently, within-family differences have received extensive attention in research on intergenerational relations (e.g., Davey, Tucker, Fingerman, & Savla, 2009).

Although studies using within-family approaches have provided some insights on support exchanges with multiple children in a family (McGarry & Schoeni, 1997; Suitor et al., 2006), the studies usually relied on reports from a single family informant (usually a parent) to get information on multiple children. Accordingly, it is often indicated that children's needs and resources reported by parents tend to be unreliable as well as reflect parents' perceptions or impressions on the children's situation (Suitor et al., 2006).

Furthermore, most studies on within-family differences have focused on two-generation families including parents and their offspring, and have examined variations among multiple offspring in their relationship with a parent (Ward, 2008). In examining within-family differences, prior studies rarely consider three-generation families, where middle-aged adults simultaneously interact with elderly parents and children who are grown. In the context of extended three-generation families, generation locations (e.g., being a member of the older parent/child pair or the younger parent/child pair in the three-generation family) can be a potential source of within-family variation (Fingerman, Pitzer, Chan, Birditt, Franks, & Zarit, 2010; Grundy & Henretta, 2006; Lynott & Robert, 1997). Middle-aged adults located between elder parents and grown offspring may have different relationship/exchange patterns depending on the other generations. These differences may result in generational disparities in reporting discrepancies within a family. In addition, the generational stake hypothesis posits that parents generally value their relationships with children more highly than do their children, and thus may overreport the help they give to and receive from children (Bengtson & Kuypers, 1971;

Giarrusso et al., 2004). However, in three generation families, middle-aged adults simultaneously occupy two generational positions, as offspring for their aging parents and parents for their grown offspring. Prior studies have not considered whether the same middle-aged adult behaves differently toward their upper and lower generations.

Between-family differences. A family systems perspective addresses assumptions and beliefs that family members share concerning how they are expected to act, and about the roles of individual members (Cox & Paley, 1997; Fingerman & Bermann, 2000). For example, parent-child dyads in some families are more likely to be congruent in their perceptions of support exchanges than those in other families, because they place more emphasis on consensus and agreement. Between-family differences have rarely been considered in the adult development literature (Henretta, Soldo, & Van Voorhis, 2011), but they may be important to examine for understanding overall family functioning as well as patterns of mutual assistance. Families with greater levels of discrepancies overall in their perspectives on help given and received may have more trouble understanding and cooperating with one another. They may approximate the profile in the clinical literature of a dysfunctional family with high levels of disagreement (Minuchin, 1988). By contrast, families with higher levels of agreement are likely to show greater understanding and support of one another. Thus, this can show how families function and relate to each other.

Regarding factors related to between-family differences, structural characteristics of family, such as race, size and composition, have often been examined (Davey, Janke, & Savla, 2004). However, less attention has been paid to family contexts revealing each family's variant on the family norms and emotional atmosphere (Seltzer et al., 2005). Based on results about structural characteristics of families (e.g., race and family composition), prior studies have only speculated roles of family's emotional or cultural contexts indirectly. Overall level of family

members' relationship quality (e.g., emotional closeness) and various beliefs on family lives (e.g., norms of obligation about supporting family members) may be important factors contributing the between-family differences in reporting discrepancies (Katz, Daatland, Lowenstein, Bazo, Ancizu, Herlofson, Mehlhausen-Hassoen, & Prilutzky, 2003).

3.3 Research Hypotheses

This study investigated discrepancies in reports of intergenerational exchanges across three generations within the same families. I attempted to extend previous work by examining discrepancies of reports of support exchanged both at the dyadic level (e.g., parent-child) and at the family level. This study examined two questions. First, what are the relative proportions of the two types of variation in dyadic discrepancies in reports of support exchanges (i.e., within- and between-family differences)? I examined whether there are substantial amounts of within- and between-family variation in the dyadic discrepancies in reports of support exchanges, including downward and upward flows.

Second, what factors explain the within- and between-differences in dyadic discrepancies? Regarding within-family differences, this study explored effects of dyad-specific characteristics, such as generations of dyadic members (i.e., upper or lower generation), gender composition, proximity and coresidence, relative levels of family obligation, and positive and negative relationship (i.e., deviation scores from family averages). Also, to address between-family differences in discrepancies in reports of support exchanges, I considered structural characteristics of the family (e.g., size of family and race), and average levels of family obligation, and positive and negative relationship.

3.4 Methods

3.4.1 Sample

This study is based on data from “*The Family Exchanges Study*” (Fingerman et al., 2009). The original sample included 633 middle-aged adults (aged 40 to 60) who resided in the Philadelphia Primary Metropolitan Statistical Area (five counties in southern Pennsylvania and four counties in New Jersey; Pennsylvania State Data Center, 2001). Each participant had at least one child over the age of 18 and one living parent. The target participants completed a series of questions for each living parent and each living child, including exchanges of support, beliefs on relationship with each parent and child, and other demographic information.

From the original sample of middle-aged adults (G2), 280 (44%) had parents (G1) who agreed to be interviewed. In 223 cases, one parent was interviewed, and in 57 cases, both parents were interviewed, which yielded discrete 337 G1-G2 dyads (aging parent and middle-aged target). Also, 399 (63%) middle-aged targets (G2) had one or more offspring (G3) who agreed to participate in this study, resulting in 592 G2-G3 dyads (middle-aged target and adult offspring). For 28 targets, three offspring were interviewed, and for 137 targets, two offspring were interviewed, and for the remaining 234 targets, one offspring was interviewed. The final sample consists of 929 parent-child dyads (G1-G2 and G2-G3) nested in 458 families (counting individuals $N = 1,387$; G1 $n = 337$; G2 $n = 458$; G3 $n = 592$). Thus, all parent-child dyads that are included in this study have reports of both members on support exchanged between dyadic partners. As Figure 3.1 describes, the maximum number of possible parent-child dyads that each family can include is five dyads, and on average families included two dyads ($M = 2.03$, $SD = 0.93$). Table 3.1 and 3.2 describe individual, dyadic, and family characteristics of the sample.

3.4.2 Measures

Support exchanges. The dependent variable involved five items from the Intergenerational Support Scale (ISS, Fingerman et al., 2009) which assesses how often participants provided and received different types of support: *emotional support*, *practical*

assistance, advice, financial support, and listening to talk about daily events. Four items reflect domains from the Social Support Resources Index (SS-R Index; Vaux, 1988; Vaux & Harrison, 1985), and the fifth, *listening to talks about daily events*, was drawn from prior work on intergenerational ties (Fingerman, 2000). Participants rated how frequently they provided each type of support to their dyadic partner, and how frequently they received that type of support on a 8-point scale: 1 (*less than once a year or not at all*), 2 (*once a year*), 3 (*a few times a year*), 4 (*monthly*), 5 (*a few times a month*), 6 (*weekly*), 7 (*a few times a week*), 8 (*daily*). I calculated mean scores across the five types of support given and received for ease of interpretation. I also examined each type of support separately in post hoc analyses. Based on the direction of the support flow between dyadic members, this study called support given by parent to child as downward exchanges, and support given by child to parent as upward exchanges. Cronbach's alphas were high across generations (G1 = .77, G2 = .85, G3 = .86 for downward exchanges; G1 = .81, G2 = .81, G2 = .83 for upward exchanges). Table 3.3 presents each generation's reports on total support and each type of support in downward and upward exchanges.

Covariates.

Within-family factors. This study considered five dyad-specific characteristics to explain within-family differences in reporting discrepancies: generation location, gender composition of the dyad, living arrangement (coresidence and geographic proximity), family obligation, and relationship quality (positive and negative relationships). *Generation location* was coded 1 for upper generation dyads (i.e., G1-G2 dyads) and 0 for lower generation dyads (i.e., G2-G3 dyads). *Gender composition* was categorized into four groups on the basis of parents' and children's gender: father-son, father-daughter, mother-son, and mother-daughter. These categories were dummy-coded, using mother-daughter as the reference group. For living arrangement between dyadic members, *coresidence* was measured with a dichotomous variable

coded 1 for dyads sharing the same household. *Geographic proximity* was measured as the distance between parents' and non-coresident children's residences in miles. For coresident dyads, their geographic proximity was coded 0. To address positive skew of distance, I used a log-linear transformation in analyses.

Family obligation asked each dyadic member how often parents should provide adult children following six types of support: emotional support, practical assistance, financial support, listening to the other's talk, socializing, and advice (Silverstein, Gans, & Yang, 2006). The answers ranged from 1 (*never*) to 5 (*always*). Means of the six items were computed. For *relationship quality*, positive relationship (2 items) and negative relationship (2 items) with the dyadic partner were assessed respectively (Umberson, 1992). Ratings were made on a 5-point scale from 1 (*not at all*) to 5 (*great deal*). Means of the two items were computed. To reveal within-family effects of family obligation and two types of relationship quality, I used deviation scores from family-mean scores (i.e., family-mean centered scores) for those variables in the analyses. Thus, the deviation scores represent relative levels of each dyad within the same family.

Between-family factors. Regarding between-family differences in dyadic discrepancies, this study examined four family characteristics, including structural characteristics (e.g., race and size of family) and characteristics for normative and emotional ambiance of families (e.g., average levels of family obligation and relationship quality). All dyads within the same family have the same scores for these variables. *Race* was coded 1 for Black families and 0 for other families. For *family size*, this study included numbers of G2's siblings and G3's siblings. For normative/emotional ambiance of families, this study considered family obligation and two types of relationship quality (i.e., positive and negative relationships). To differentiate them from

dyad-specific characteristics, I calculated *average scores of family obligation* and *average scores of positive and negative relationships* among all participants in the family.

Control variables. This study also considered five demographic variables of participants as controls: age, years of education, income, marital status, and self-rated health. Given prior studies showing that these variables were mainly associated with the levels of support exchanges, not with the discrepancies (Kim et al., 2012; Mandemakers & Dykstra, 2008), I only used them in models for the dyadic mean levels of support exchanges. Participants indicated household income in 2007 on a scale ranging from 1 (*less than \$10,000*) to 6 (*more than \$100,000*). Marital status of participants was dummy-coded 1 for (*re*)*married* and 0 for *not-married*. Self-rated health for the past 12 months was measured using a 5-point-scale ranging from 1 (*poor*) to 5 (*excellent*).

3.4.3 Analysis Plan

To analyze dyadic data nested in families, I used multilevel modeling (SAS PROC MIXED; Littell, Milliken, Stroup, & Wolfinger, 1996), which accounts for the interdependence of individuals within each dyad or family and enables researchers to predict both the level of the outcome and the level and direction of differences in reports of the outcome within pairs and families. In a multilevel model, individual observations of parents and children (level 1) are nested within the dyad (level 2), which is the unit of analysis. In addition to the dyadic level (level 2), I also considered level 3 (family level) models to explain the shared variance of dyads within the same family because parent-child dyads are also nested in families. A multilevel model divides the variance of dyadic discrepancies into two components, capturing variation within the family (i.e., between different dyads within a family) and variation between families. To model an individual score (Y_{ijk}) for i th member in the j th dyad in the k th family, the level 1 equation can be written as follows:

$$Y_{ijk} = \beta_{0jk} + \beta_{1jk}(\text{Relation}_{ijk})$$

where observations from each dyad member are regressed on an indicator variable (*Relation*: parent or offspring) at level 1. (The indicator variable, *Relation* was coded -0.5 for parents and 0.5 for children. This is an alternative form of dummy coding to 0 and 1 for examining means and discrepancies between dyad members. The advantage of coding -0.5 and 0.5 is that the intercept can represent a mean across dyad members. Also, the slope represents a discrepancy between dyad members, which is equivalent to coding of 0 and 1. A negative coefficient for discrepancy indicates that parents reported higher level of exchanges than children; a positive coefficient for discrepancy indicates that children reported higher level of exchanges than parents.) This regression model was summarized by two parameters: an intercept and a slope. The intercept (β_{0jk}) represents the mean level of support exchange for each matched pair (averaged across the dyad members). The slope (β_{1jk}) captures the degree of discrepancy in the level of support exchange between the dyad members, which is the focus of this study (Sayer & Klute, 2005). Because the primary interest of this study was examining discrepancies in parent-child reports about support exchanges, not the dyadic mean level, I focused on results about the discrepancies (slope, β_{1jk}), though I also included the same sets of predictors and controls for the mean levels (intercept, β_{0jk}).

To address the first research question regarding the proportions of within- and between-family variance in dyadic discrepancies, I estimated intercept-only models (i.e., no predictor) at level 2 and level 3 (Model 1).

$$\beta_{1jk} = \delta_{10k} + u_{1jk} \quad \text{level 2 (dyad level)}$$

$$\delta_{10k} = \gamma_{100} + v_{10k} \quad \text{level 3 (family level)}$$

$$\beta_{1jk} = \gamma_{100} + (u_{1jk} + v_{10k}) \quad \text{Combined equation}$$

where the variance of u_{1jk} is the within-family variance, and the variance of v_{10k} is the between-

family variance. If the discrepancy (*slope*) has significant variance components for within- and between-family, it is appropriate to proceed with exploratory models in which predictors can be included to explain the variation in the parameter (Bryk & Raudenbush, 2002). To address the second research question regarding within- and between-family predictors of dyadic discrepancies, I added covariates to the models respectively (Model 2 and Model 3).

3.5 Results

3.5.1 Baseline Models

Table 3.4 and 3.5 show three models for dyadic discrepancies in total scores of downward and upward exchanges respectively. Model 1 presents baseline models without predictors, which estimate the average discrepancy of dyadic reports in support exchanges (*fixed effect*) and within- and between-family variances in the dyadic discrepancies (*random effect*). The discrepancy scores were significant in both downward and upward exchanges, though the discrepancy in upward exchanges was more pronounced. Thus, on average, both parents and offspring tended to report giving more than receiving. Examination of each type of support confirmed that all five discrepancy scores for upward exchanges were positive and significant, which means that children consistently reported giving more than parents reported receiving for all types of support (*Table 3.7*). However, specific types of support in downward exchanges showed different results in the direction and significance of the discrepancies (*Table 3.6*). For example, the discrepancy scores for emotional and financial support were negative ($B = -0.34, p < .001$ for emotional support; $B = -0.24, p < .01$ for financial support), which means that parents reported giving more emotional and financial support than children reported receiving. However, the discrepancy score for advice ($B = 0.18, p < .05$) was positive, indicating parents reported giving less advice than children reported receiving. Also, discrepancies in practical assistance and listening to daily talks were not significant in downward exchanges.

All the random variance for the discrepancies at level 2 (within-family) level 3 (between-family) were significant, indicating that there were substantial amounts of variability in the dyad discrepancy across dyads as well as families (See *Table 3.4* and *Table 3.5*). Based on the estimated variance at different levels, I could compute the proportion of between-family variance as a percentage of total unexplained variance. In downward exchanges, between-family variance accounted for 18.11%, and in upward exchanges between-family variance accounted for 15.88% of the total unexplained variance. Looking at each type of support, the proportion of between-family variance in downward exchanges ranged from 6.66% (emotional support) to 19.18% (advice) (*Table 3.6*). In upward exchanges, the between-family variance ranged from 3.31% (practical assistance) to 19.88% (emotional support) (*Table 3.7*).

3.5.2 Model 2: Within-Family Factors

In model 2, I added factors to explain within-family differences in dyadic discrepancies, including structural factors (e.g., generation location, gender composition, and living arrangement of the dyad) and family beliefs and relationship factors (e.g., relative levels of family obligation and relationship quality). First, although generation location (i.e., G1-G2 or G2-G3) was not significant for discrepancies in overall downward and upward exchanges, it appears that the effect of generation location differed by the types and directions of support (*Table 3.8* and *Table 3.9*). For example, in G1-G2 dyads, parents tended to report giving and receiving more practical assistance than children reported ($B = -1.33, p < .001$ for downward exchanges; $B = -0.50, p < .01$ for upward exchanges), compared to G2-G3 dyads. In addition, in G1-G2 dyads, children were likely to report giving more emotional support ($B = 0.42, p < .05$), listening more ($B = 0.56, p < .001$), and receiving more financial support ($B = 0.50, p < .001$) than parents reported (See *Figure 3.2* and *Figure 3.3*). Second, gender composition of dyads was associated with discrepancies in both downward and upward exchanges. Thus, dyads where

the parent is a father (e.g., father-son and father-daughter) showed negative effects on dyadic discrepancies, indicating that fathers tended to report more support than children reported regardless of the direction of support. Third, coresidence between dyadic members was positively associated with only upward exchanges, which means that in dyads who share the same household, children were likely to report providing more support than their parents reported receiving. In particular, it appears that coresidence was related to discrepancies in tangible types of support, such as practical support ($B = 0.51, p < .05$) and financial support ($B = 0.54, p < .01$). Fourth, regarding family obligation, offspring's family obligation was significant for downward exchanges whereas parents' obligation was significant for upward exchanges. Thus, given that the family obligation represents relative scores within the family, both parents and offspring who had a *stronger* feeling of family obligation than other family members were likely to report *receiving* more support than their dyadic members reported giving. Fifth, for relationship quality, relative levels of positive relationships with dyadic members showed the most significant and strongest effects on the dyadic discrepancies in reports of support for both downward and upward exchanges. Parents and offspring who reported *higher* levels of positive relationships were likely to report *giving* and *receiving* more support than their dyadic partners reported. However, negative relationship quality was negatively associated with discrepancies in the reports of overall support in downward exchanges only for parents. Thus, when parents had higher levels of negative relationships with their offspring, parents were likely to report to give more support (particularly advice and financial support) than their offspring reported receiving. Adding these within-family factors reduced unexplained within-family variance from 71.1% to 58.1% in downward exchanges and from 74.8% to 66.1% in upward exchanges.

3.5.3 Model 3: Between-Family Factors

Next, in model 3, I added family-level variables to explain between-family differences, including structural factors (e.g., race and family size) and factors related to family beliefs and relationship quality (e.g., family obligation and positive and negative relationships). Among those family characteristics, I found that family average scores of positive and negative relationships are associated with discrepancies in downward exchanges (*Figure 3.4*). Thus, in dyads belonging to families with higher levels of positive relationships, children were likely to report receiving more support than their parents reported giving. Also, in dyads in families with higher levels of negative relationships, parents tended to report giving more support than their offspring reported receiving. After adding these between-family factors, unexplained between-family variance in downward exchanges reduced from 16.2% to 12.3%. However, none of the between-family factors were associated with discrepancies in upward exchanges, leaving the proportion of unexplained between-family variance slightly higher (15.3% to 15.7%).

3.6 Discussion

As family systems theory posits, a family reflects a constellation of individual parent-child dyads. Each parent-child dyad has uniqueness as a subsystem as well as sharing behavior patterns, past experiences, and family beliefs and values with other dyads within the family system. In examining these within- and between-family differences, prior studies on intergenerational relationships have focused on how much support was given and received, examining how the amount/frequency of support exchanged between parents and children varies within- and between families (Henretta et al., 2011; Sutor et al., 2006). This study extends prior work by looking at whether there are differences in perspectives on how much support was given and received, and how the differences in perspectives vary within and between families.

The findings of this study showed that there are significant within- and between-family variances in dyadic discrepancies in reports of support exchanges between parents and adult

offspring. Thus, although a larger proportion of the variance was explained by within-family differences, dyads within the same families also showed similarity in the levels of discrepancies. In addition, the variation of dyadic discrepancies revealed significant associations with various within- and between-family factors. This finding suggests the importance of considering both within- and between-family differences in examining issues regarding intergenerational relationships.

This study confirmed prior research demonstrating that there are systematic discrepancies in reports of support exchanges (Lin, 2008; Mandemakers & Dykstra, 2008; Shapiro, 2004). In upward exchanges (i.e., support given to parent by child), children tended to report *giving more* support than their parents reported receiving across different types of support. The direction of discrepancies appears to be consistent with self-enhancement theory, which suggests that people emphasize positive biases of their own actions (e.g., giving). In contrast, discrepancies in downward exchanges (i.e., support given to child by parent) showed different patterns depending on the type of support; parents tended to report *giving more* emotional and financial support as well as *giving less* advice than their children reported receiving. Mandemakers and Dykstra (2008) also reported these differences between downward and upward exchanges in the patterns of discrepancies. Thus, whereas children's reports of support given to parents follow a universal tendency toward self-enhancement, parents' reports of support given to child are colored by various family contexts. For example, parents' reports on advice (e.g., giving less) may still reflect self-enhancement in a modified way, given that advice-giving may be interpreted by parents as being intrusive and interfering in children's lives in adult families. In addition, this may, in part, reflect the fact that downward flows of support have a longer history than upward direction of support over the life-span of parents and children.

To address within-family variations of dyadic discrepancies in reports of support exchanges, we examined structural characteristics (e.g., generation location, gender composition, and living arrangement) and psychological characteristics (e.g., family obligation and relationship quality) of dyads. First, regarding generation location, our findings revealed significant effects on dyadic discrepancies, and the effects differed depending on the type of support, although I did not find significant effects on discrepancies in reports of overall support exchanges. For example, in downward exchanges, dyads in upper generations (i.e., G1-G2 dyads) showed larger discrepancies in practical assistance, whereas dyads in lower generations (i.e., G2-G3 dyads) showed larger discrepancies in financial support. In upward exchanges, dyads in upper generations showed larger discrepancies in emotional support and listening, while dyads in lower generations showed larger discrepancies in practical assistance. Thus, generation location appeared to be a significant source of within-family variation in perceptions of support exchanges. Generation location within families reflects different developmental stages related to ages of each generation, which may lead to different perceptions of specific types of support (Lynott & Roberts, 1997). Second, gender composition of dyads was associated with dyadic discrepancies. Regardless of the child's gender, fathers were more likely than mothers to report more support given to and received from their children. This result may reflect the fact that fathers are less supportive, feel less close, and spend less time with offspring overall, which may contribute to fathers' discordant perceptions on support exchanges with children (Shapiro, 2004; Rossi & Rossi, 1990). Third, the results showed that when sharing the same household, children tended to report providing more support (particularly practical assistance and financial support) than parents reported receiving. Although coresidence between parents and children may provide more opportunities for shared perceptions of exchanges, our findings suggest that perceptions on tangible types of support can be more blurred in a shared household. In addition,

given that coresidence may in many cases be caused by increased needs of one generation, this result may reflect efforts to avoid feelings of dependency.

This study also examined psychological characteristics of dyads (obligations and relationship quality) to explain within-family differences in dyadic discrepancies. The variables were used as a form of family-mean centered variables to represent relative levels within families. I found that relative levels of positive relationship quality were significantly associated with discrepancies for both parents and children (Mandemakers & Dykstra, 2008). Participants who are in better relationships with their parent or child tended to report giving and receiving more support than their parent or child reported. Thus, having better relationships with parents and children appears to cast a more positive light on support provided to and received from them (Gagné & Lydon, 2004). However, relative levels of negative relationship quality were significant only for parents' reports on support given to offspring. Parents who reported higher levels of negative relationship with their offspring tended to report giving more support (e.g., advice and financial support) than their child reported receiving. Regarding family obligation, both parents and children who reported stronger feelings of family obligation tended to reported more support received. This finding differs from Mandemakers and Dykstra (2008) who reported that only parents' feelings of obligation were associated with discrepancies. According to our findings, having stronger feelings of family obligation appears to cast a positive light on support received, not support provided for both parents and children. This different result may be related to the fact that in this study, I used relative levels of obligations within families, while Mandemakers and Dykstra looked at each individual's scores separately.

Next, the current study examined between-family characteristics, including family structural factors and family psychological factors. Whereas no between-family factors showed significant associations with discrepancies in upward exchanges, in downward exchanges we

found that families' average levels of positive and negative relationship explained between-family variance in reporting discrepancies. Thus, in families who had higher levels of positive relationships among family members, children tended to report receiving more support than parents reported giving. Conversely, in families with higher levels of negative relationships, parents were likely to report giving more support than children reported receiving. The results are consistent to characteristics of well-functioning families, showing offspring's appreciation for received support and parents' willingness of provision of support. Even after including effects of relative levels of relationship quality as within-family factors, the family-levels of relationship quality explained substantial variances in discrepancies additionally. This result suggests the importance of considering family levels of characteristics to understand why families as a whole differ in intergenerational relationships.

Some limitations of this study should be considered. First, though data from multiple informants of three-generation families allowed us a unique opportunity to examine reporting discrepancies, the family members who agreed to participate in this survey may be systematically different from non-participant family members (e.g., better relationship quality and better functioning). Second, because all dyads include the middle-aged target participants (G2), between-family variances of this study may confound target participants' individual characteristics. Third, we can only identify discrepancies, but how the discrepancies are related to the amount of the actual exchanges. However family members perceive exchanges, however, will be more important for the overall quality of their relationships than the actual amounts of support given and received.

This study confirms and expands upon prior research that demonstrated discrepancies between parents and their offspring in the amount of support given and received by considering within- and between-family differences. Beyond the individual parent-child dyads, how family

members across generations share similar patterns and differentiate themselves from other families may have implication for understanding dynamics of intergenerational exchanges in family contexts.

3.7 References

- Aquilino, W. S. (1999). Two views of one relationship: Comparing parents' and young adult children's reports of the quality of intergenerational relations. *Journal of Marriage and Family*, *61*, 858-870. doi:10.2307/354008
- Bengtson, V. L., & Kuypers, J. A. (1971). Generational difference and the developmental stake. *Aging and Human Development*, *2*, 249-260. doi:10.2190/AG.2.4.b
- Bianchi, S. M., Evans, V. J., Hotz, V. J., McGarry, K., & Seltzer, J. A. (2007). An assessment of available data and data needs for studying intra- and inter-generational family relationships and behavior. *California Center for Population Research Working Papers, No. 20-07*. Los Angeles, CA: University of California-Los Angeles.
- Bryk, A. S., & Raudenbush, S. W. (2002). *Hierarchical linear models* (2nd ed.). Newbury Park, CA: Sage.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Reviews of Psychology*, *48*, 243-267. doi:10.1146/annurev.psych.48.1.243
- 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: Springer.
- Davey, A., Tucker, C. J., Fingerman, K. L., & Savla, J. (2009). Within-family variability in representations of past relationships with parents. *Journal of Gerontology: Social Sciences*, *64B*, 125-136, doi:10.1093/geronb/gbn001
- Fingerman, K. L. (2000). "We had a nice little chat": Age and generational differences in mothers' and daughters descriptions of enjoyable visits. *Journal of Gerontology: Psychological Sciences*, *55*, P95-P106. doi:10.1093/geronb/55.2.P95
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *International Journal of Aging and Human Development*, *51*, 5-29.
- 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., Franks, M. M., & Zarit, S. H. (2010). 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
- Gagné, F. M., & Lydon, J. E. (2004). Bias and accuracy in close relationships: An integrative review. *Personality and Social Psychology Review, 8*, 322-338. doi:10.1207/s15327957pspr0804_1
- Giarrusso, R., Feng, D., & Bengtson, V. L. (2004). The intergenerational-stake phenomenon over 20 years. In M. Silverstein & K. W. Schaie (Eds.), *Annual review of gerontology and geriatrics: Focus on intergenerational relations across time and place, Vol. 24* (pp. 55-76). New York: Springer.
- Grundy, E., & Henretta, J. C. (2006). Between elderly parents and adult children: A new look at the 'sandwich generation.' *Ageing and Society, 26*, 707-722. doi:10.1017/S0047279400019978
- Henretta, J. C., Soldo, B. J., & Van Voorhis, M. F. (2011). Why do families differ? Children's care for an unmarried mother. *Journal of Marriage and Family, 73*, 383-395. doi:10.1111/j.1741-3737.2010.00813.x
- 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 Family, 61*, 831-844. doi:10.2307/354006
- Katz, R., Daatland, S. O., Lowenstein, A., Bazo, M. T., Ancizu, I., Herlofson, K., Mehlhausen-Hassoen, D., & Prilutzky, D. (2003). Family norms and preferences in intergenerational relations: A comparative perspective. In V. L. Bengtson & A. Lowenstein (Eds.), *Global aging and challenges to families* (pp. 305-326). New York: Aldine de Gruyter.
- Kim, K., Zarit, S. H., Eggebeen, D. J., Birditt, K. S., & Fingerman, K. L. (2011). Discrepancies in reports of support exchanges between aging parents and their middle-aged children. *Journal of Gerontology: Psychological Sciences, 66B*, 527-537. doi:10.1093/geronb/gbr029
- Krueger, J. (1998). Enhancement bias in the description of self and others. *Personality and Social Psychology Bulletin, 24*, 505- 516. doi:10.1177/0146167298245006

- Lin, I. -F. (2008). Mother and daughter reports about upward transfers. *Journal of Marriage and Family*, 70, 815-827. doi:10.1111/j.1741-3737.2008.00524.x
- Littell, R. C., Milliken, G. A., Stroup, W. W., & Wolfinger, R. D. (1996). *SAS system for mixed models*. North Carolina: SAS Institute Inc.
- Lynott, P. P., & Roberts, R. E. L. (1997). The developmental stake hypothesis and changing perceptions of intergenerational relations, 1971-1985. *The Gerontologist*, 37, 394-405. doi:10.1093/geront/37.3.394
- Mandemakers, J. J., & Dykstra, P. A. (2008). Discrepancies in parent's and adult child's reports of support and contact. *Journal of Marriage and Family*, 70, 495-506. doi:10.1111/j.1741-3737.2008.00496.x
- 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:10.1093/geronb/52B.Special_Issue.82
- Minuchin, P. (1988). Relationships within the family: A systems perspective on development. In R. A. Hinde & J. Stevenson-Hinde (Eds.), *Relationships within families* (pp. 7-26). Oxford: Oxford University Press.
- Pennsylvania State Data Center (2001). *Research brief: Standards for defining metropolitan statistical areas announced*. Harrisburg, PA: Institute of State and Regional Affairs.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Sayer, A. G., & Klute, M. M. (2005). Analyzing couples and families: Multilevel methods. In V. L. Bengtson, A. C. Acock, 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
- Seltzer, J. A., Bachrach, C. A., Bianchi, S. M., Bledsoe, C. H., Casper, L. M., Chase-Lansdale, P., DiPrete, T. A., Hotz, V. J., Morgan, S. P., Sanders, S. G., & Thomas, D. (2005). Explaining family change and variation: Challenges for family demographers. *Journal of Marriage and Family*, 67, 908-925. doi:10.1111/j.1741-3737.2005.00183.x
- Shapiro, A. (2004). Revisiting the generation gap: Exploring the relations of parent/adult-child dyads. *International Journal of Aging and Human Development*, 58, 127-146.

doi:10.2190/EVFK-7F2X-KQNV-DH58

- Silverstein, M., & Giarrusso, R. (2010). Aging and family life: A decade review. *Journal of Marriage and Family*, 72, 1039-1058. doi:10.1111/j.1741-3737.2010.00749.x
- 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
- Suitor, J. J., Pillemer, K., & Sechrist, J. (2006). Within-family differences in mothers' support to adult children. *Journal of Gerontology: Social Science*, 61B, S10-S17.
doi:10.1093/geronb/61.1.S10
- Umberson, D. (1992). Relationships between adult children and their parents: Psychological consequences for both generations. *Journal of Marriage and the Family*, 54, 664-674.
doi:10.2307/353252
- Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York: Praeger.
- Vaux, A., & Harrison, D. (1985). Support network characteristics associated with support satisfaction and perceived support. *American Journal of Community Psychology*, 13, 245-268. doi:10.1007/BF00914932
- Ward, R. A., (2008). Multiple parent-adult child relations and well-being in middle and later life. *Journal of Gerontology*, 63B, S239-S247. doi:10.1093/geronb/63.4.S239
- Willson, A. E., Shuey, K. M., Elder, G. H., Jr., & Wickrama, K. A. S. (2006). Ambivalence in mother-adult child relations: A dyadic analysis. *Social Psychology Quarterly*, 69, 235-252. doi:10.1177/019027250606900302

Table 3.1

Descriptive Summary for Participants' Individual Characteristics

	G1 (n = 337)			G2 (n = 458)			G3 (n = 592)		
	M (SD)	Range	α	M (SD)	Range	α	M (SD)	Range	α
<i>Individual characteristics</i>									
Age	76.07 (6.32)	59 - 96		50.44 (4.92)	40 - 60		23.80 (5.12)	18 - 41	
Male (yes = 1)	0.31 (0.46)	0 - 1		0.48 (0.50)	0 - 1		0.45 (0.50)	0 - 1	
Education (years)	12.71 (2.49)	0 - 17		14.19 (2.01)	9 - 17		13.90 (1.81)	10 - 17	
Income ^a	3.01 (1.31)	1 - 6		4.44 (1.41)	1 - 6		3.77 (1.61)	1 - 6	
Married (yes = 1)	0.47 (0.50)	0 - 1		0.71 (0.46)	0 - 1		0.16 (0.36)	0 - 1	
Health ^b	3.08 (1.12)	1 - 5		3.46 (1.04)	1 - 5		3.70 (0.96)	1 - 5	
Family obligation ^c	3.78 (0.60)	1 - 5	0.67	3.71 (0.48)	2 - 5	0.72	3.76 (0.47)	1.83 - 5	0.69
Positive relationship ^{d,e}	4.35 (0.69)	1 - 5	0.59	4.17 (0.71)	1 - 5	0.59	4.16 (0.80)	1 - 5	0.60
Negative relationship ^{d,e}	1.66 (0.74)	1 - 5	0.53	2.11 (0.88)	1 - 5	0.62	2.37 (1.00)	1 - 5	0.74

Notes. ^aRated from 1 (*less than \$10,000*) to 6 (*more than \$100,000*). ^bRated from 1 (*poor*) to 6 (*excellent*). ^cMean of 6 items rated from 1 (*never*) to 5 (*always*). ^dMean of 2 items rated from 1 (*not at all*) to 5 (*great deal*). ^eG1 answered about relationship with G2; G2 provided separate ratings for each G1 and G3 ($N = 929$); G3 answered about relationship with G2.

Table 3.2

Descriptive Summary for Participants' Dyadic and Family Characteristics

	Dyad (<i>N</i> = 929)				Family (<i>N</i> = 458)	
	G1-G2 (<i>n</i> = 337)		G2-G3 (<i>n</i> = 592)		<i>M</i> (<i>SD</i>)	Range
	<i>M</i> (<i>SD</i>)	Range	<i>M</i> (<i>SD</i>)	Range		
<i>Dyad characteristics</i>						
Father - Son	0.12 (0.33)	0 - 1	0.23 (0.42)	0 - 1		
Father - Daughter	0.18 (0.39)	0 - 1	0.24 (0.43)	0 - 1		
Mother - Son	0.29 (0.45)	0 - 1	0.22 (0.41)	0 - 1		
Mother - Daughter	0.41 (0.49)	0 - 1	0.31 (0.46)	0 - 1		
Coresidence (<i>yes</i> = 1)	0.12 (0.32)	0 - 1	0.30 (0.46)	0 - 1		
Geographic distance (<i>miles</i>)	248.00 (641.5)	0 - 4000	132.34 (439.4)	0 - 5000		
<i>Family characteristics</i>						
# of family members participating					3.03 (0.93)	2 - 6
Race - Black (<i>yes</i> = 1)					0.33 (0.47)	0 - 1
# of G2's siblings					3.19 (2.36)	0 - 18
# of G3's siblings					2.85 (1.51)	1 - 11
Family obligation ^{a,c}					3.75 (0.33)	2.75 - 4.67
Positive relationship ^{b,c}					4.19 (0.51)	2.13 - 5.00
Negative relationship ^{b,c}					2.10 (0.61)	1 - 4.25

Notes. ^aMean of 6 items rated from 1 (*never*) to 5 (*always*). ^bMean of 2 items rated from 1 (*not at all*) to 5 (*great deal*). ^cAverage scores of all participants' scores within the same family (*family-mean*).

Table 3.3

Reports of Support Exchanges between Generations

	Upper generation (Dyad $n = 337$)		Lower generation (Dyad $n = 592$)		Total (Dyad $N = 929$)	
	Parent (G1)	Child (G2)	Parent (G2)	Child (G3)	Parent	Child
<i>Downward exchanges</i>						
Emotional support	4.86 (2.18)	4.68 (2.12)	<i>6.03 (1.85)***</i>	5.62 (2.16)	<i>5.61 (2.05)***</i>	5.28 (2.19)
Practical assistance	<i>3.39 (2.28)***</i>	2.51 (1.82)	4.37 (2.11)	<i>4.70 (2.23)***</i>	4.02 (2.22)	3.91 (2.34)
Listening to talk	5.71 (1.77)	5.62 (1.73)	<i>6.38 (1.58)*</i>	6.23 (1.81)	<i>6.14 (1.68)*</i>	6.01 (1.81)
Advice	3.91 (2.04)	<i>4.29 (2.07)**</i>	5.56 (1.65)	5.65 (1.87)	4.97 (1.97)	<i>5.16 (2.05)**</i>
Financial support	2.01 (1.53)	2.10 (1.37)	<i>4.35 (2.13)***</i>	3.91 (2.30)	<i>3.50 (2.24)***</i>	3.26 (2.19)
Total support ^a	3.97 (1.43)	3.84 (1.40)	<i>5.34 (1.44)*</i>	5.22 (1.66)	<i>4.85 (1.58)**</i>	4.72 (1.70)
<i>Upward exchanges</i>						
Emotional support	4.75 (2.35)	<i>5.51 (2.00)***</i>	4.46 (2.08)	<i>4.86 (2.23)***</i>	4.56 (2.19)	<i>5.10 (2.17)***</i>
Practical assistance	3.90 (2.34)	4.04 (2.08)	3.59 (1.99)	<i>4.35 (2.09)***</i>	3.70 (2.12)	<i>4.24 (2.09)***</i>
Listening to talk	5.59 (1.87)	<i>6.08 (1.54)***</i>	5.99 (1.81)	5.98 (1.88)	5.84 (1.84)	<i>6.02 (1.77)**</i>
Advice	4.11 (2.23)	4.30 (1.86)	3.89 (1.92)	<i>4.28 (2.01)***</i>	3.97 (2.04)	<i>4.29 (1.96)***</i>
Financial support	1.85 (1.63)	<i>2.06 (1.63)*</i>	1.72 (1.47)	<i>2.11 (1.59)***</i>	1.77 (1.53)	<i>2.09 (1.60)***</i>
Total support ^a	4.03 (1.59)	<i>4.39 (1.41)***</i>	3.93 (1.40)	<i>4.32 (1.53)***</i>	3.97 (1.47)	<i>4.34 (1.48)***</i>

Notes. Values are given in M (SD); Mean values in italics are significantly higher than the other generation's report (paired sample t -tests).

^aMean of 5 types of support rated from 1 (*less than once a year or not at all*) to 8 (*daily*).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.4

Models for Dyadic Discrepancies in Reports of Downward Exchanges

Downward exchanges	Model 1		Model 2		Model 3	
	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>						
Intercept ^a	-0.12*	0.05	-0.05	0.12	-0.55	0.74
Within-family factors						
Upper generation (<i>yes</i> = 1)			-0.06	0.10	-0.08	0.10
Gender composition ^b						
Father – Son			-0.28*	0.13	-0.27*	0.13
Father – Daughter			-0.33**	0.12	-0.33**	0.12
Mother – Son			-0.08	0.12	-0.11	0.11
Living arrangement						
Coresidence (<i>yes</i> = 1)			0.19	0.13	0.17	0.13
Geographic distance ^c			0.02	0.02	0.01	0.02
Family obligation (<i>dev</i>) ^d						
Obligation – Parent			-0.16	0.14	-0.19	0.14
Obligation – Child			0.33*	0.13	0.33*	0.14
Relationship quality (<i>dev</i>) ^d						
Positive relationship – Parent			-0.36***	0.08	-0.37***	0.08
Positive relationship – Child			0.60***	0.07	0.60***	0.07
Negative relationship – Parent			-0.18*	0.07	-0.20**	0.07
Negative relationship – Child			0.04	0.06	0.04	0.06
Between-family factors						
Black (<i>yes</i> = 1)					0.15	0.11
Family size						
# of G2's siblings					0.00	0.02
# of G3's siblings					0.04	0.03
Family obligation (<i>ave</i>) ^e					-0.27	0.15
Relationship quality (<i>ave</i>) ^e						
Positive rel.					0.46***	0.11
Negative rel.					-0.25**	0.09
<i>Random effect</i>						
Level 2 VAR (dyad)	1.21***	0.11	0.99***	0.09	0.96***	0.09
Level 3 VAR (family)	0.31***	0.09	0.27***	0.08	0.21**	0.08
(% of Within-Family VAR)		(71.08%)		(58.08%)		(56.86%)
(% of Between-Family VAR)		(18.11%)		(16.18%)		(12.28%)
-2 Log Likelihood		5838.9		5213.2		5052.5
χ^2		471.37***		248.67***		141.28***

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting. ^bMother – daughter dyads were used as a reference group. ^cLogged miles. ^dDeviation scores from family-mean scores (*family-mean centered*). ^eAverage scores of all family members' scores (*family-mean*).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.5

Models for Dyadic Discrepancies in Reports of Upward Exchanges

Upward exchanges	Model 1		Model 2		Model 3	
	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>						
Intercept ^a	0.39***	0.05	0.44***	0.13	-0.02	0.82
Within-family factors						
Upper generation (<i>yes</i> = 1)			0.02	0.10	0.01	0.11
Gender composition ^b						
Father – Son			-0.30*	0.14	-0.28	0.14
Father – Daughter			-0.28*	0.13	-0.28*	0.13
Mother – Son			0.07	0.12	0.08	0.12
Living arrangement						
Coresidence (<i>yes</i> = 1)			0.33*	0.14	0.34*	0.14
Geographic distance ^c			-0.01	0.02	0.01	0.02
Family obligation (<i>dev</i>) ^d						
Obligation – Parent			-0.39**	0.15	-0.39**	0.15
Obligation – Child			0.15	0.15	0.17	0.15
Relationship quality (<i>dev</i>) ^d						
Positive relationship – Parent			-0.39***	0.09	-0.39***	0.09
Positive relationship – Child			0.31***	0.08	0.30***	0.08
Negative relationship – Parent			0.00	0.08	0.01	0.08
Negative relationship – Child			0.08	0.07	0.08	0.07
Between-family factors						
Black (<i>yes</i> = 1)					0.14	0.12
Family size						
# of G2's siblings					0.01	0.02
# of G3's siblings					-0.04	0.04
Family obligation (<i>ave</i>) ^e					0.15	0.17
Relationship quality (<i>ave</i>) ^e						
Positive rel.					-0.07	0.12
Negative rel.					0.10	0.10
<i>Random effect</i>						
Level 2 VAR (dyad)	1.41***	0.12	1.24***	0.11	1.22***	0.11
Level 3 VAR (family)	0.30**	0.10	0.29**	0.09	0.29***	0.09
(% of Within-Family VAR)	(74.83%)		(66.13%)		(64.97%)	
(% of Between-Family VAR)	(15.88%)		(15.32%)		(15.66%)	
-2 Log Likelihood	5674.6		5241.4		5121.2	
χ^2	307.27***		183.74***		91.53***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting. ^bMother – daughter dyads were used as a reference group. ^cLogged miles. ^dDeviation scores from family-mean scores (*family-mean centered*). ^eAverage scores of all family members' scores (*family-mean*).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.6

Model 1 for Dyadic Discrepancies in Reports of Downward Exchanges by Type of Support

Downward exchanges	Emotional support		Practical assistance		Listening to talk		Advice		Financial support	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>										
Intercept ^a	-0.34***	0.08	-0.13	0.08	-0.12	0.06	0.18*	0.08	-0.24**	0.08
<i>Random effect</i>										
Level 2 VAR (dyad)	4.66***	0.09	4.40***	0.31	1.87***	0.15	3.02***	0.21	2.90***	0.16
Level 3 VAR (family)	0.34	0.26	0.51*	0.24	0.46***	0.14	0.76***	0.21	0.64***	0.21
(% of Within-Family VAR)	(91.25%)		(86.26%)		(74.70%)		(76.63%)		(77.91%)	
(% of Between-Family VAR)	(6.66%)		(9.98%)		(18.56%)		(19.18%)		(17.16%)	
-2 Log Likelihood	6980.5		7161.7		6169.7		6739.5		6332.0	
χ^2	173.00***		243.57***		328.45***		251.12***		126.10***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.7

Model 1 for Dyadic Discrepancies in Reports of Upward Exchanges by Type of Support

Upward exchanges	Emotional support		Practical assistance		Listening to talk		Advice		Financial support	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>										
Intercept ^a	0.50***	0.09	0.52***	0.08	0.19**	0.07	0.35***	0.08	0.35***	0.06
<i>Random effect</i>										
Level 2 VAR (dyad)	4.23***	0.32	4.07***	0.29	2.57***	0.72	3.79***	0.32	2.19***	0.18
Level 3 VAR (family)	1.11***	0.29	0.15	0.21	0.49**	0.18	0.69**	0.27	0.27*	0.15
(% of Within-Family VAR)	(75.81%)		(91.40%)		(80.45%)		(77.41%)		(83.31%)	
(% of Between-Family VAR)	(19.88%)		(3.31%)		(15.43%)		(14.21%)		(10.25%)	
-2 Log Likelihood	7083.8		6897.8		6358.0		6853.8		5944.0	
χ^2	187.86***		224.18***		272.38***		130.78***		202.33***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.8

Model 2 for Dyadic Discrepancies in Reports of Downward Exchanges by Type of Support

Downward exchanges	Emotional support		Practical assistance		Listening to talk		Advice		Financial support	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>										
Intercept ^a	-0.23	0.20	0.23	0.20	-0.12	0.14	0.23	0.18	-0.33	0.18
Within-family factors										
Upper generation (<i>yes</i> = 1)	0.25	0.17	-1.33***	0.17	0.10	0.12	0.17	0.15	0.50***	0.15
Gender composition										
Father - Son	-0.52*	0.23	-0.01	0.23	-0.43**	0.16	-0.40*	0.20	-0.07	0.20
Father - Daughter	-0.20	0.21	-0.41	0.21	-0.26	0.15	-0.52**	0.18	-0.34	0.19
Mother - Son	-0.17	0.20	0.05	0.20	-0.04	0.14	-0.13	0.17	-0.15	0.17
Living arrangement										
Coresidence (<i>yes</i> = 1)	0.04	0.22	0.22	0.22	0.32*	0.16	0.18	0.19	0.10	0.19
Geographic distance	0.01	0.04	0.06	0.04	0.02	0.03	0.02	0.03	0.00	0.03
Family obligation (<i>dev</i>) ^b										
Obligation - Parent	-0.25	0.24	0.02	0.24	-0.03	0.16	-0.33	0.20	-0.27	0.20
Obligation - Child	0.26	0.25	0.45	0.24	0.21	0.17	0.41*	0.21	0.30	0.21
Relationship quality (<i>dev</i>) ^b										
Positive rel. - Parent	-0.47***	0.14	-0.19	0.14	-0.46***	0.10	-0.35**	0.12	-0.31**	0.12
Positive rel. - Child	0.87***	0.13	0.37**	0.13	0.59***	0.09	0.70***	0.11	0.47***	0.11
Negative rel. - Parent	-0.12	0.13	-0.18	0.13	-0.04	0.09	-0.32**	0.11	-0.23*	0.11
Negative rel. - Child	-0.04	0.11	-0.15	0.11	0.15*	0.07	0.24**	0.09	-0.02	0.09
<i>Random effect</i>										
Level 2 VAR (dyad)	4.07***	0.12	3.81***	0.29	1.65***	0.14	2.67***	0.21	2.73***	0.21
Level 3 VAR (family)	0.39	0.24	0.66**	0.24	0.43***	0.13	0.68***	0.19	0.65***	0.19
(% of Within-Family VAR)	(79.76%)		(74.74%)		(65.82%)		(67.87%)		(73.36%)	
(% of Between-Family VAR)	(7.62%)		(12.86%)		(17.37%)		(17.18%)		(17.48%)	
-2 Log Likelihood	6656.3		6694.5		5848.3		6295.2		6380.9	
χ^2	105.90***		117.58***		229.44***		126.94***		159.73***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting. ^bDeviation scores from family-mean scores (*family-mean centered*).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.9

Model 2 for Dyadic Discrepancies in Reports of Upward Exchanges by Type of Support

Upward exchanges	Emotional support		Practical assistance		Listening to talk		Advice		Financial support	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>										
Intercept ^a	0.84	0.21	0.54**	0.19	-0.02	0.16	0.59**	0.20	0.26	0.15
Within-family factors										
Upper generation (<i>yes</i> = 1)	0.42*	0.18	-0.50**	0.16	0.56***	0.13	-0.26	0.17	-0.14	0.13
Gender composition										
Father - Son	-0.62*	0.24	-0.33	0.21	-0.01	0.18	-0.48*	0.23	-0.11	0.17
Father - Daughter	-0.23	0.22	-0.42*	0.20	-0.19	0.17	-0.49*	0.22	-0.10	0.16
Mother - Son	-0.31	0.21	0.12	0.19	0.08	0.16	0.12	0.20	0.31*	0.15
Living arrangement										
Coresidence (<i>yes</i> = 1)	0.17	0.23	0.51*	0.21	0.14	0.18	0.26	0.22	0.54**	0.17
Geographic distance	-0.11**	0.04	0.09*	0.04	0.01	0.03	-0.02	0.04	-0.00	0.03
Family obligation (<i>dev</i>) ^b										
Obligation - Parent	-0.69**	0.25	-0.34	0.23	-0.31	0.19	-0.69**	0.24	0.06	0.18
Obligation - Child	0.05	0.25	0.16	0.24	0.25	0.19	0.20	0.24	0.08	0.18
Relationship quality (<i>dev</i>) ^b										
Positive rel. - Parent	-0.58***	0.14	-0.35**	0.13	-0.47***	0.11	-0.35*	0.14	-0.18	0.10
Positive rel. - Child	0.45***	0.14	0.20	0.13	0.41***	0.10	0.38**	0.13	0.07	0.10
Negative rel. - Parent	-0.10	0.13	0.22	0.12	0.04	0.10	-0.20	0.13	0.03	0.10
Negative rel. - Child	0.10	0.11	0.06	0.10	0.09	0.09	0.15	0.11	0.04	0.08
<i>Random effect</i>										
Level 2 VAR (dyad)	4.06***	0.30	3.71***	0.27	2.37***	0.19	3.95***	0.30	2.11***	0.17
Level 3 VAR (family)	1.02***	0.27	0.31	0.21	0.44**	0.16	0.74**	0.26	0.26*	0.14
(% of Within-Family VAR)	(72.72%)		(84.24%)		(74.34%)		(80.83%)		(80.59%)	
(% of Between-Family VAR)	(18.20%)		(6.94%)		(13.70%)		(15.07%)		(9.89%)	
-2 Log Likelihood	6746.4		6515.6		6046.9		6668.4		5744.0	
χ^2	147.97***		94.10***		215.99***		102.94***		79.60***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting. ^bDeviation scores from family-mean scores (*family-mean centered*).

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.10

Model 3 for Dyadic Discrepancies in Reports of Downward Exchanges by Type of Support

Downward exchanges	Emotional support		Practical assistance		Listening to talk		Advice		Financial support	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>										
Intercept ^a	-2.43	0.05	0.03	1.30	0.04	0.94	1.35	1.15	-1.43	1.15
Within-family factors										
Upper generation (<i>yes</i> = 1)	0.22	0.17	-1.36***	0.17	0.09	0.12	0.15	0.15	0.48**	0.15
Gender composition										
Father - Son	-0.46*	0.22	-0.02	0.23	-0.41*	0.16	-0.41*	0.20	-0.04	0.20
Father - Daughter	-0.17	0.21	-0.44*	0.22	-0.24	0.15	-0.52**	0.19	-0.33	0.19
Mother - Son	-0.19	0.20	-0.03	0.20	-0.06	0.14	-0.16	0.17	-0.17	0.17
Living arrangement										
Coresidence (<i>yes</i> = 1)	-0.02	0.22	0.23	0.22	0.31*	0.16	0.15	0.19	0.14	0.19
Geographic distance	-0.01	0.04	0.05	0.04	0.01	0.03	0.00	0.03	-0.01	0.03
Family obligation (<i>dev</i>) ^b										
Obligation - Parent	-0.29	0.24	-0.02	0.24	-0.02	0.17	-0.36	0.20	-0.29	0.20
Obligation - Child	0.26	0.24	0.46	0.24	0.19*	0.17	0.40	0.21	0.31*	0.21
Relationship quality (<i>dev</i>) ^b										
Positive rel. - Parent	-0.49***	0.14	-0.19	0.14	-0.46***	0.10	-0.36**	0.12	-0.31***	0.12
Positive rel. - Child	0.87***	0.13	0.37**	0.13	0.59***	0.09	0.70***	0.11	0.47***	0.11
Negative rel. - Parent	-0.17	0.13	-0.21	0.13	-0.05	0.09	-0.35**	0.11	-0.25*	0.11
Negative rel. - Child	-0.02	0.11	-0.15	0.11	0.15*	0.07	0.24**	0.09	-0.01	0.09
Between-family factors										
Black (<i>yes</i> = 1)	0.45**	0.17	-0.03	0.18	0.14	0.13	0.09	0.16	0.08	0.16
Family size										
# of G2's siblings	0.00	0.04	-0.03	0.04	0.02	0.03	-0.03	0.03	0.03	0.03
# of G3's siblings	0.08	0.05	0.01	0.06	-0.02	0.04	0.08	0.05	0.03	0.05
Family obligation (<i>ave</i>) ^c	-0.35	0.25	-0.02	0.27	-0.37	0.19	-0.54*	0.24	-0.15	0.24
Relationship quality (<i>ave</i>) ^c										
Positive rel.	0.93***	0.19	0.25	0.20	0.31*	0.14	0.32	0.17	0.48**	0.17
Negative rel.	-0.36*	0.15	-0.28	0.15	-0.05	0.11	-0.28*	0.14	-0.26	0.14
<i>Random effect</i>										
Level 2 VAR (dyad)	3.93***	0.29	3.69***	0.29	1.65***	0.14	2.66***	0.21	2.72***	0.21
Level 3 VAR (family)	0.23	0.21	0.58**	0.24	0.41***	0.13	0.63***	0.18	0.58**	0.19
(% of Within-Family VAR)	(76.88%)		(72.35%)		(65.91%)		(67.57%)		(72.95%)	
(% of Between-Family VAR)	(4.46%)		(11.28%)		(16.29%)		(15.96%)		(15.59%)	
-2 Log Likelihood	6521.9		6659.9		5725.5		6167.4		6332.0	
χ^2	56.65***		90.38***		133.58***		66.60***		126.10***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting.

^bDeviation scores from family-mean scores (*family-mean centered*). ^cAverage scores of all family members' scores (*family-mean*). * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3.11

Model 3 for Dyadic Discrepancies in Reports of Upward Exchanges by Type of Support

Upward exchanges	Emotional support		Practical assistance		Listening to talk		Advice		Financial support	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
<i>Fixed effect</i>										
Intercept ^a	0.41	0.05	-0.63	1.21	-0.46	1.05	0.42	1.35	-0.15	0.97
Within-family factors										
Upper generation (<i>yes</i> = 1)	0.44*	0.18	-0.51**	0.16	0.56***	0.14	-0.29	0.17	-0.13	0.13
Gender composition										
Father - Son	-0.58*	0.24	-0.28	0.21	0.03	0.18	-0.48*	0.23	-0.10	0.17
Father - Daughter	-0.21	0.23	-0.41*	0.20	-0.15	0.17	-0.54*	0.22	-0.08	0.16
Mother - Son	-0.29	0.21	0.14	0.19	0.08	0.16	0.11	0.20	0.33*	0.15
Living arrangement										
Coresidence (<i>yes</i> = 1)	0.17	0.23	0.54*	0.21	0.12	0.18	0.31	0.23	0.53**	0.17
Geographic distance	-0.09*	0.04	0.10**	0.04	0.01	0.03	-0.02	0.04	0.01	0.03
Family obligation (<i>dev</i>) ^b										
Obligation - Parent	-0.67**	0.25	-0.34	0.22	-0.30	0.19	-0.71**	0.24	0.07	0.18
Obligation - Child	0.07	0.25	0.19	0.24	0.24	0.19	0.23	0.24	0.09	0.18
Relationship quality (<i>dev</i>) ^b										
Positive rel. - Parent	-0.58***	0.14	-0.34*	0.13	-0.46***	0.11	-0.35*	0.14	-0.18	0.10
Positive rel. - Child	0.45***	0.14	0.19	0.13	0.41***	0.10	0.37**	0.13	0.08	0.10
Negative rel. - Parent	-0.08	0.13	0.24	0.12	0.05	0.10	-0.22	0.13	0.04	0.10
Negative rel. - Child	0.10	0.11	0.05	0.10	0.08	0.09	0.14	0.11	0.04	0.08
Between-family factors										
Black (<i>yes</i> = 1)	0.17	0.20	0.12	0.17	0.12	0.15	0.10	0.19	0.12	0.14
Family size										
# of G2's siblings	0.06	0.04	0.01	0.04	0.02	0.03	0.00	0.04	-0.03	0.03
# of G3's siblings	-0.01	0.06	-0.10	0.05	-0.03	0.05	-0.07	0.06	0.01	0.04
Family obligation (<i>ave</i>) ^c	0.29	0.29	0.26	0.25	-0.26	0.22	0.37	0.28	0.12	0.20
Relationship quality (<i>ave</i>) ^c										
Positive rel.	-0.31	0.21	-0.01	0.18	0.24	0.16	-0.13	0.20	-0.10	0.15
Negative rel.	0.18	0.17	0.20	0.15	0.17	0.13	-0.24	0.16	0.17	0.12
<i>Random effect</i>										
Level 2 VAR (dyad)	4.04***	0.30	3.67***	0.27	2.36***	0.19	4.03***	0.30	2.10***	0.17
Level 3 VAR (family)	1.01***	0.27	0.32	0.21	0.44**	0.16	0.76**	0.26	0.27*	0.15
(% of Within-Family VAR)	(72.34%)		(83.35%)		(74.08%)		(82.29%)		(80.12%)	
(% of Between-Family VAR)	(18.01%)		(7.34%)		(13.87%)		(15.46%)		(10.28%)	
-2 Log Likelihood	6624.4		6487.2		5953.7		6575.8		5735.8	
χ^2	70.07***		78.66***		125.68***		52.69***		63.57***	

Notes. ^aNegative discrepancy scores indicate parents reporting more than children reporting; positive discrepancy scores indicate children reporting more than parents reporting.

^bDeviation scores from family-mean scores (*family-mean centered*). ^cAverage scores of all family members' scores (*family-mean*). * $p < .05$. ** $p < .01$. *** $p < .001$.

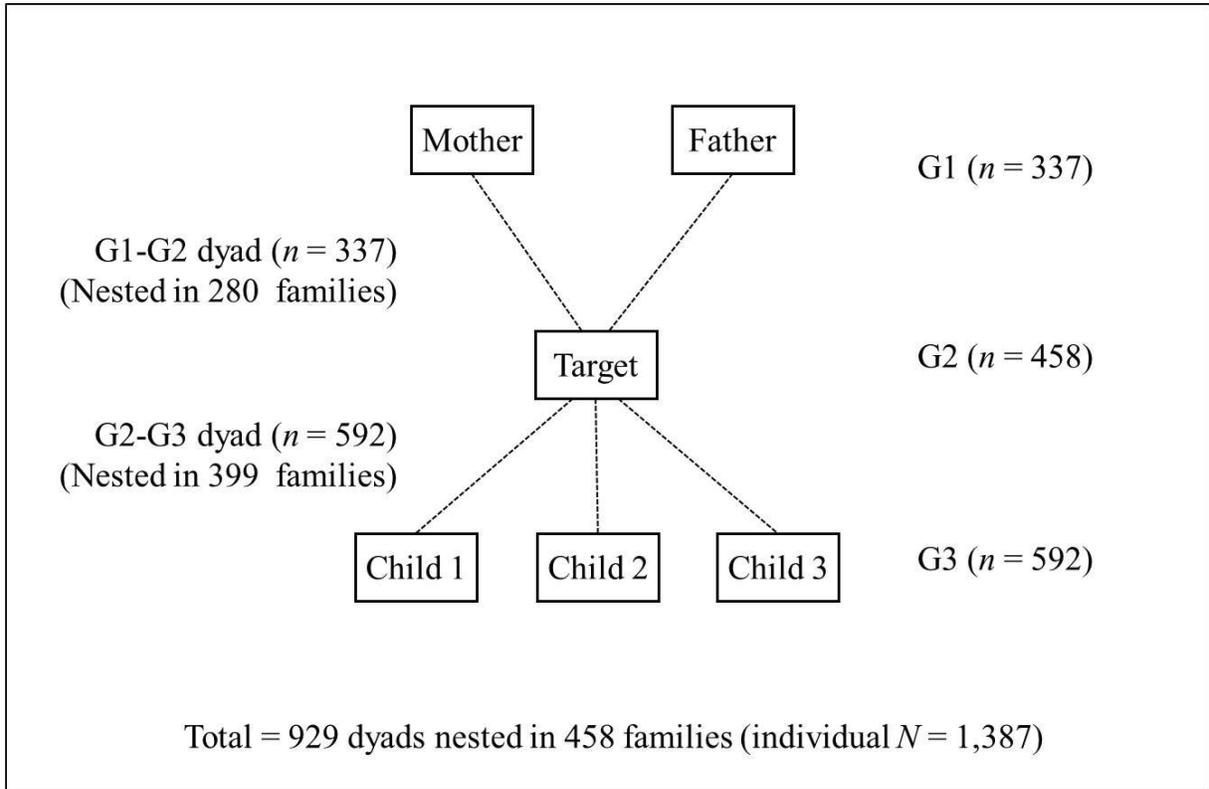


Figure 3.1. Structure of the Three-Generation Family in This Study.

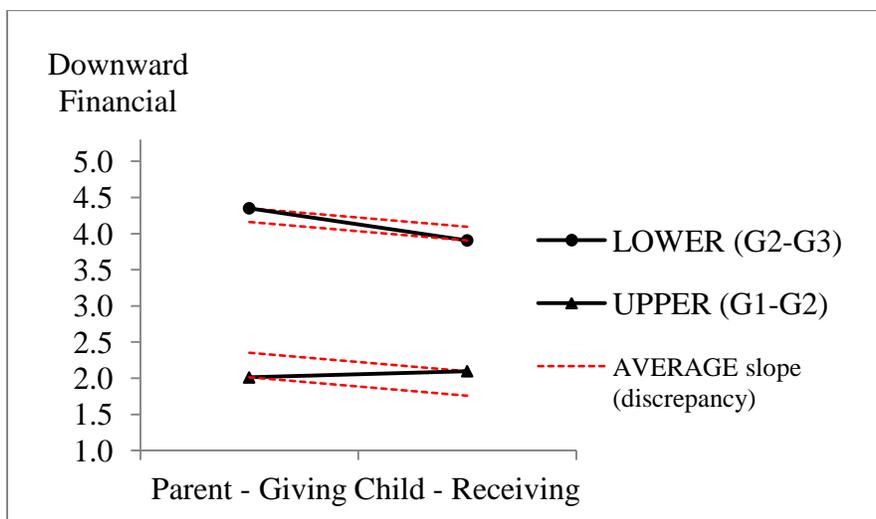
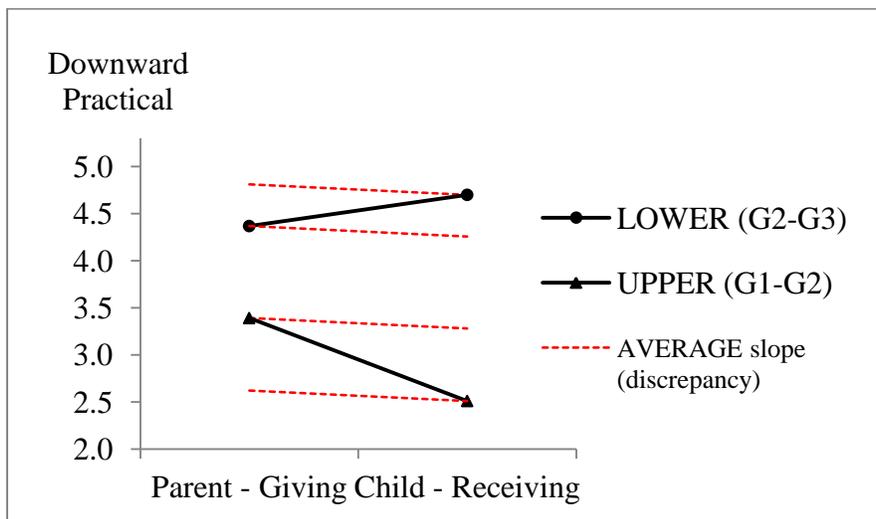


Figure 3.2. Effects of Generation Location on Dyadic Discrepancies in Downward Exchanges (Practical Assistance and Financial Support).

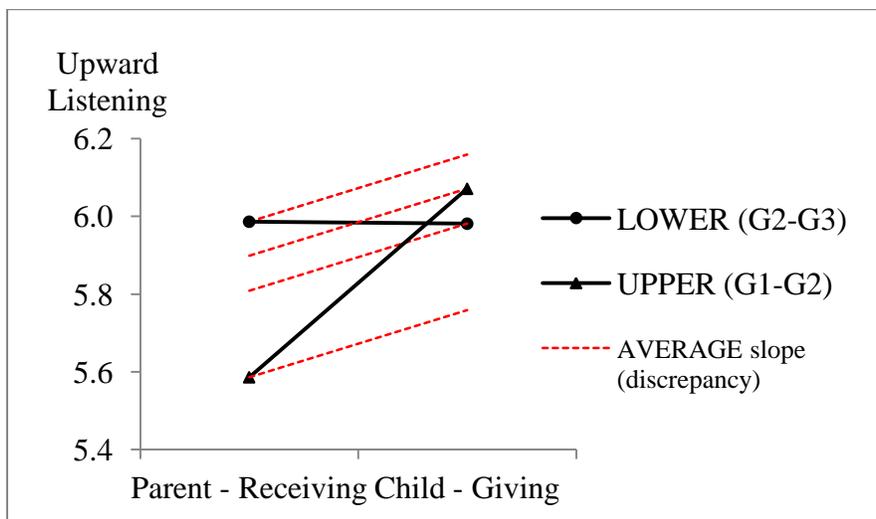
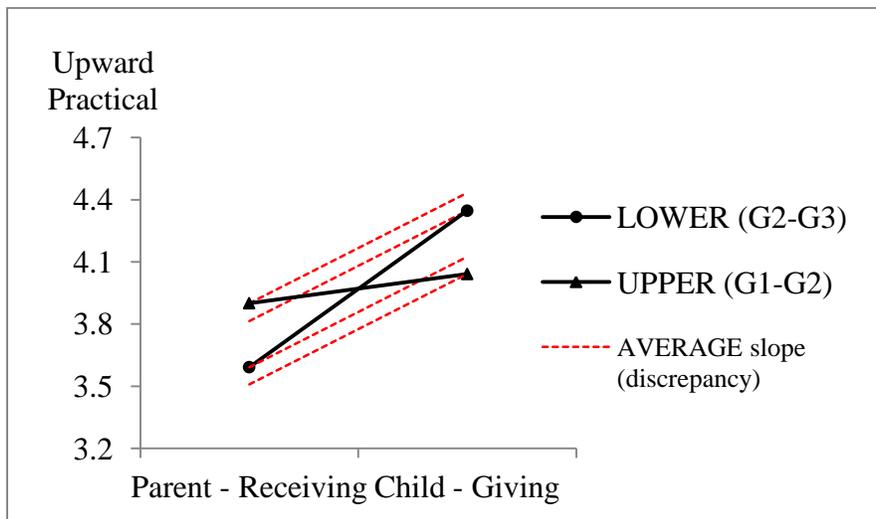
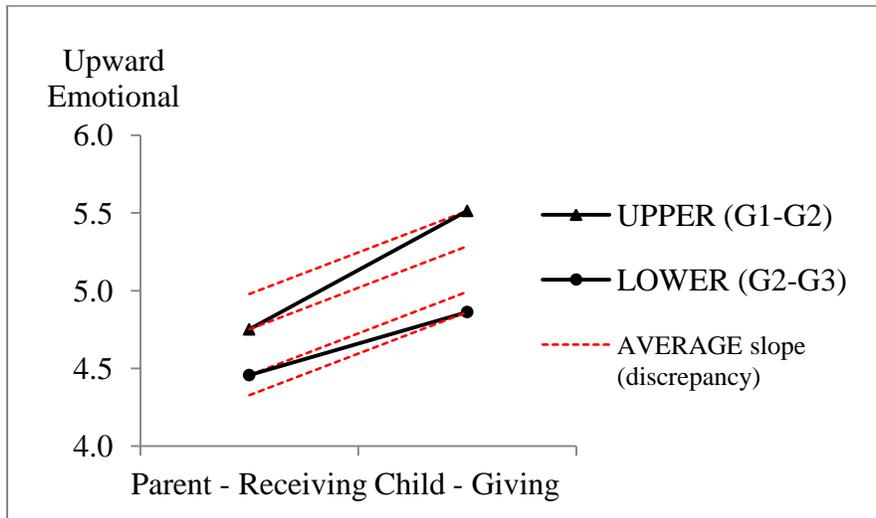


Figure 3.3. Effects of Generation Location on Dyadic Discrepancies in Upward Exchanges (Emotional Support, Practical Assistance, and Listening)

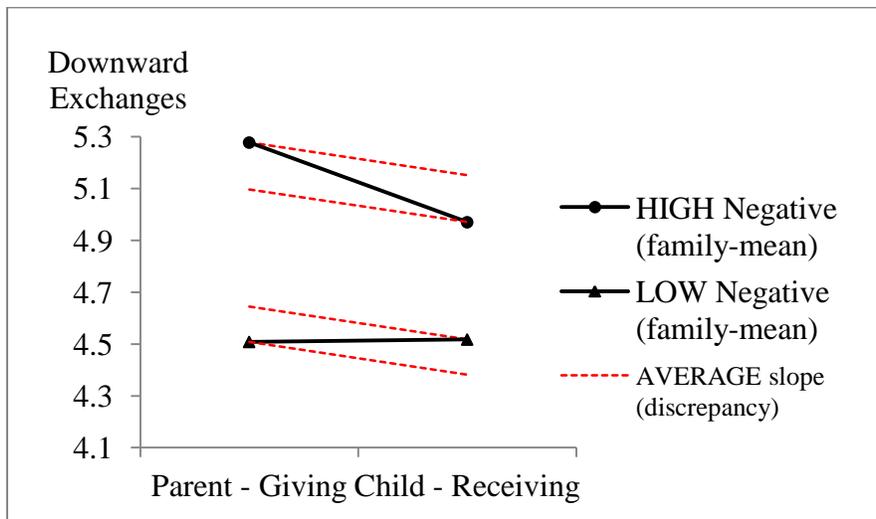
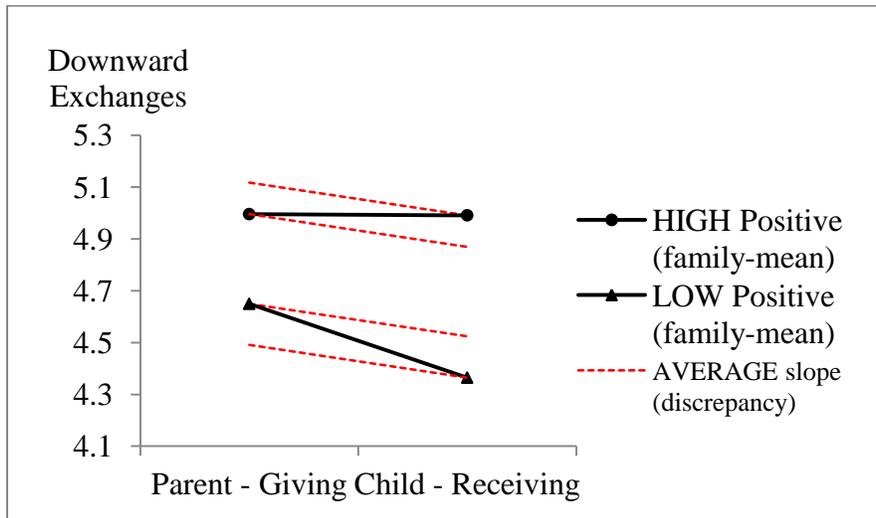


Figure 3.4. Effects of Positive and Negative Relationship (Family Means) on Dyadic Discrepancies in Downward Exchanges (Overall Support).

CHAPTER 4. STUDY 2

Agreement between Aging Parents' Bequest Intention and Middle-Aged Children's Expectation

Abstract

Study 2 investigated discrepancies in views of aging parents and their middle-aged offspring regarding inheritances. Data from 327 older parent-adult child dyads were analyzed. Using multilevel models, this study examined factors (e.g., economic resources, family characteristics, current support exchanges, and beliefs about family obligation) associated with expectations of inheritance. I also explored patterns of correspondence in expectations over inheritance within dyads, and what factors are associated with these patterns. The findings showed a significant generational difference in expectations of inheritance, with children less likely to expect inheritances than parents expected to give. Parents' income, number of siblings, and support currently given to child 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 to discordant dyads where parents intended to leave a bequest, but their child did not expect an inheritance (44%), correspondent dyads where both parents and children expected a bequest (42%) showed higher income levels of parents and children, more support given to child, and lower levels of child's filial obligation. Although bequest decisions are circumscribed by parent's financial resources, they appear to be a continuation of established patterns of exchanges. Further, this study found that parents and children form their intention or expectation about inheritance based on different factors, leaving open the possibility of misunderstandings between the generations.

Keywords: Bequest, Inheritance, Support exchanges, Aging parents, Middle-aged children, Dyadic correspondence

4.1 Significance of Research

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*. Material transfers among adult family generations through inter-vivos gifts and inheritance have been mainly studied in the economic literature (Arrondel & Masson, 2006). 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). 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 on decisions about support exchanges and relationship outcomes between generations, especially in aging families (Caputo, 2005; Silverstein, Parrott, & Bengtson, 1995).

Despite the importance of multiple perspectives among family members in transfer decisions (Davey, Janke, & Savla, 2004; Pezzin, Pollak, & Schone, 2008), the investigation of bequest behaviors has mainly considered the aging parents’ perspective (parents’ decisions; Light & McGarry, 2004; Munnell, Sundén, Soto, & Taylor, 2003). 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; McGarry, 1999). 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. Given the implicitness of issues related to inheritance within family, it is likely that children have different views about inheritance and their expectations are based on different factors from their parents.

These discrepancies in views on inheritance between parents and children could become a source of family conflicts and affect current exchanges and relationships as well as the mourning process and sibling ties following parental death (Laitner, 1997; Lustbader, 1996; Stum, 2000).

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

4.2 Background and Literature Review

4.2.1 Theories on Bequest Motives

Most of the economic literature on inheritance has focused on examining the motivations of older family members to leave bequests to their children, and this research has been based on two competing explanations; altruism and exchange/strategic models (Arrondel & Masson, 2006; Silverstein, 2006; Soldo & Hill, 1993). The *altruism model* assumes affection, a moral duty, or obligation as a basis for providing help in situations of need (Becker, 1981). Thus, parents who leave a bequest are showing concern about the welfare of future generations, particularly their children and grandchildren. 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, 1992; Wilhelm, 1996).

In contrast, *exchange models* posit that transfer behaviors are based on self-interest motives to maximize personal rewards and minimize personal costs even in relationships with significant others, including family members (Cox, 1987; 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 (Dunn & Phillips, 1997; McGarry, 1999; Norton & Van Houtven, 2006; Perozek, 1999; Wilhelm, 1996). The current study examined both models by comparing the effects of economic resources of parents and children and current support patterns on inheritance expectations between parents and children.

4.2.2 Factors Associated with Expectations on Bequest/Inheritance

This study focused on family member's expectations over inheritance. In examining bequest motives, prior studies have indicated usefulness of "subjective" measures of expected bequests (e.g., probability of anticipated bequest; 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

resulting from uncertainties of associated with the end of life, which may mask individuals' original motives behind bequest plans (Hurd, 2003).

Individuals' motives 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, I considered four sets of factors: (1) economic resources, (2) family characteristics, (3) current support exchanges, and (4) beliefs about family obligation. This study 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 prior studies have heavily focused on financial status of children as recipients to examine altruistic motivations of bequest (Altonji, Hayashi, & Kotlikoff, 2002), 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).

In contrast, effects of children's economic resources on bequests are not clear. For example, as the equal division practice of bequests suggests, some studies found that a child's income did not show significant associations with bequest behaviors of parents (Altonji et al., 1992; Wilhelm, 1996). However, there are other studies that show evidence 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). Künemund et al. (2005) found that children's economic status, such as income, wealth, and home ownership, was positively associated with expected bequest, such that better off children received larger bequests though their study did not account parents' characteristics in the analyses.

Family characteristics. I 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 financial support from parents (Davey et al., 2005). In particular, given that bequests are usually (equally or unequally) divided among siblings in the family, the share of bequest that each child will receive would decrease with the number of siblings as competitors for resources. For example, Schoeni (1997) found that having a greater number of siblings reduced the likelihood and amount of assistance received from parents in both money and time when parents were still alive. Hurd (2003) also found that parents with more than three children reported lower levels of bequest probabilities.

In addition, given racial differences in the mode of intergenerational support that prior studies have indicated, family members' expectations of inheritance may differ by race. It appears 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; Cox & Rank, 1992; Eggebeen, 1992; McGarry & Schoeni, 1995). According to Lee and Aytac (1998), White adult children are more likely to receive financial transfers from their parents than non-White ones. Regarding bequests, Kao et al. (1997) found that White adults are more likely to expect receiving an inheritance from their parents than non-Whites. Whether these patterns reflect race differences in parental financial resources or cultural differences in preferences or expectations remains an open question (Berry, 2006; Sarkisian, Gerena, & Gerstel, 2007).

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 (including upward and downward flows of support between generations) 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 above, 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, Silverstein et al. (1995) found that son's expectations of inheritance were positively associated with social support provided to their parents, whereas daughter's expectations of inheritance were negatively associated with support to parents. Caputo (2002) also found that adult daughters tend to provide support to their older parents regardless of expectations of future inheritance. 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 personal care and household chores to them. However, Norton and Van Houtven (2006) reported that informal care 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 parents 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 (Kohli & Künemund, 2003). There is evidence of a direct association between child's filial obligation

and support given to parents (Ikkink, Van Tilburg, & Knipscheer, 1999; Lowenstein & Daatland, 2006; Parrott & Bengtson, 1999), and parental obligation may play a role in parental bequests.

Generally, norms of family obligation are defined as rights and duties that specify the way in which family members are expected to behave toward each other (Rossi & Rossi, 1990). Individuals create their own norms of family obligation through interactions with other family members over time (Finch & Mason, 1993; Gans & Silverstein, 2006). 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 of support and affection received from parents when they were young (Silverstein, 2006). Therefore, it might be possible that filial obligations toward parents preclude adult children from having expectations on future return from parents, though parental obligations toward children may ensure their intention to leave bequests.

Control variables. I 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. Due to gender disparities in life expectancy, gender of parents may also affect expectation of inheritances. It is likely that fathers consider their surviving spouses in making a plan for bequests (Clignet, 2009). In addition, expectations on bequest can be affected by parents' health status, because family members may consider possible medical and long-term care expenses spent when older parents are in poor health conditions (Davey et al., 2004; Hurd & Smith, 2001). In addition, because proximity constrains provision of certain types of help, I included geographic distance between parents and children (Eggebeen, 1992; Fingerman, Pitzer, Chan, Birditt, Franks, & Zarit, 2011).

4.3 Research Hypotheses

In sum, this study takes into account the different perspectives of aging parents and adult children to explore the issues of inheritance within family contexts. Utilizing data from 327 dyads of older parents and their middle-aged children, I investigated what factors are associated with expectations on inheritance reported by parents and children, and if parents' and children's expectations on inheritance are associated with the same or different factors. In addition, I 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.

4.4 Methods

4.4.1 Sample

This study is based on data from *The Family Exchanges Study*, which is a three-generation family survey to examine support exchanges among family members across generations (Fingerman, Miller, Birditt, & Zarit, 2009). As a first step in the sampling procedure, respondents aged 40 to 60 years who had at least one living parent and one or more biological children over the age of 18 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 (five counties in southeastern Pennsylvania and four counties in New Jersey; Pennsylvania State Data Center, 2001) and stratified by gender and age (40 to 50; 51 to 60). Interviews were conducted from January through September 2008. Of the 845 eligible targets, 633 (75%) were interviewed. The middle-aged participants completed a

series of questions for each living parent, including exchanges of support, beliefs about relationships with parents, and other demographic information.

From the original sample of 633 middle-aged adults, 280 (44%) had parents who also agreed to be interviewed. With regard to dyads in this study, 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 ($t = 4.795, p < .001$), younger ($t = -3.185, p < .01$), and in a better relationship with their participant child ($t = 6.193, p < .001$).

Because exchanges between the middle-aged child and his or her mother and father were measured separately, I 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. In no instance was the older adult interviewed with his or her child present or vice versa. Excluded were dyads who did not have reports from both dyadic members on the main variable, expectations of bequest/inheritance ($n = 10$), so that the final sample was 327 parent-child dyads (individual $N = 600$). Table 4.1 presents background information regarding individual and dyadic characteristics of the sample.

4.4.2 Measures

Expectation of inheritance. The dependent variable was expectation of leaving a bequest or receiving an inheritance, which was measured as dichotomous. This study asked each parent and child of the dyads about the expected provision of inheritance (for parents) or the expected receipt of bequest (for adult children). Older parents answered *yes* or *no* to whether they intend to leave an inheritance for their child. Adult children also answered *yes* or *no* to whether they expect to receive an inheritance from their parent (See *Table 4.2* for frequency of the answers).

Independent variables.

Economic resources. This study used as indicators of economic resources household income and education of each parent and child. Participants reported household income in 2007 on a 6-point scale: 1 (*less than \$10,000*), 2 (*\$10,001-\$25,000*), 3 (*\$25,001-\$40,000*), 4 (*\$40,001-\$75,000*), 5 (*\$75,001-\$100,000*), and 6 (*more than \$100,000*) (McGarry & Schoeni, 1997), and they also provided their years of education.

Family characteristics. Two variables were measured for 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. This study assessed support that children provided to their parents (downward flow), and support that parents provided to their children (upward flow). Using the Intergenerational Support Scale (ISS; Fingerman et al., 2009), the study measured how often participants provided and received six types of support (emotional support, practical assistance, advice, socializing, financial support, and listening to talk about daily events) on a 8-point scale: 1 (*less than once a year or not at all*), 2 (*once a year*), 3 (*a few times a year*), 4 (*monthly*), 5 (*a few times a month*), 6 (*weekly*), 7 (*a few times a week*), 8 (*daily*). I calculated mean scores across the six types of support.

Because this study has both children's reports and parents reports of support received from and given to their dyadic partner, I used average scores of parents' and children's reports to represent two flows of support exchanges between them: downward support (i.e., averages of parents' reports of support given and children's reports of support received) and upward support (i.e., averages of parents' reports of support received and children's reports of support given) ($\alpha = .85$ for downward support; $\alpha = .86$ for upward support).

Family obligation. This study measured norms of obligations toward children (for older parents) or parents (for adult children). Parents were asked how often parents should provide to offspring six types of support: emotional support, practical assistance, listening to the other's talk, socializing, advice, and financial support (Silverstein, Gan, & Yang, 2006); and children indicated how often they thought children should provide to their parents such support. The answers ranged from 1 (*never*) to 5 (*always*). Means of the six items were computed ($\alpha = .67$ for parents; $\alpha = .79$ 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 non-coresident children's residences was measured in miles. For dyads who shared households, their geographic distance was coded 0. To address positive skew of distance, I used a log-linear transformation in the analyses.

4.4.3 Analysis plan

Research question 1. To analyze data at the level of the dyad, I used multilevel models, which account for the interdependence of individuals within each dyad or family, and allow at least one random effect (Hox, 1998; Raudenbush & Bryk, 2002). Dyadic data represents a special case of hierarchically clustered data, with individuals nested within dyads. Thus, individual responses of parents and children are nested within the dyad, which is the unit of analysis. Because the dependent variable of this study is a dichotomous variable ($y_{ij} = 1$ or 0), this study 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; McMahon, Pouget, & Tortu, 2006).

$$\eta_{ij} = \log [p_{ij} / (1 - p_{ij})]$$

where p_{ij} is the probability of observing the response, y_{ij} (e.g., participants expected or not future inheritance/bequest) in the i th member in the j th dyad, and η_{ij} is the log-odds of observing the response. Based on the link function, multilevel models were specified as follows:

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

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

$$\beta_{1j} = \gamma_{10} + \gamma_{11j}W_{qj}$$

At level 1 (*within-dyad level*), the multilevel model includes only the indicator variable, *generation* (coded 0 for parents and 1 for children), as a predictor. The intercept β_{0j} represents the expected inheritance probability for individuals in dyad j whose generation is equal to 0 (i.e., parents). The slope β_{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 et al., 2006).

At level 2 (*between-dyads approach*), I examined the effects of four sets of predictors, W_{qj} to explain the variation of the intercept (β_{0j} , overall inheritance probability within dyads) and slope coefficients (β_{1j} , generational differences in inheritance probability within dyads) across dyads. Thus, examining predictors for the intercept shows factors affecting expectations on inheritance commonly for parents and children, while 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 indicator variable (*generation*). Given that inclusion of random slope variance for dyadic data with only two observations per cluster can cause convergence problems (Hox, 1998; Newsom, 2002), I included only the random intercept for the level 2 model.

Research question 2. To examine dyadic correspondence on inheritance expectations, I divided dyads into four groups based on the answers of parent and offspring within dyads (*Table 4.2*), and looked at the proportion of each group: two correspondent dyads (both dyadic members answered “yes”; both dyadic members answered “no”) and two discordant dyads (parents answered “yes” and their offspring answered “no”; parents answered “no” and their offspring answered “yes”). First, a McNemar test was used to examine an effect of generation in the percentage of parents and children who answered “yes” to the expectations on inheritance. As a non-parametric test, McNemar tests can be applied to dyadic data with a dichotomous within-dyads outcome variable (e.g., expected inheritance) and a dichotomous within-dyads independent variable (e.g., generation) (Kenny, Kashy, & Cook, 2006). Second, to investigate factors related to patterns of the dyadic concordance on inheritance expectations, I conducted a logistic regression analysis (e.g., concordant dyads vs. discordant dyads), including the same sets of predictors as in question 1.

4.5 Results

4.5.1 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 4.3*). As an initial step, I included only the indicator variable, generation (parent or child), which estimates generational differences in dyadic reports of the inheritance expectations (model 1). Generation showed a significant negative effect on inheritance expectations, which indicates that children were less likely to expect receiving an inheritance than parents intended to leave a bequest (Odds Ratio = 0.07). The random effect for intercept was also significant, indicating that there is substantial unexplained variance in the outcome variable, and level 2 predictors could be added to the model.

Next I added four sets of predictors to the model to explain between-dyad variability in the overall probability of expected inheritance (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. Support given to parent had no effect. Finally, this study found no effects of parents' or offspring's beliefs about family obligation on expectations of inheritance.

I 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, which may explain the generational differences observed in the probability of expected inheritance. I found significant interaction effects with generation for three factors: child's income, upward exchanges, and parents' gender (model 3). Specifically, when children had higher levels of income, they were less likely to expect to receive an inheritance while 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 while 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.

4.5.2 Dyadic Correspondence in Expectations of Inheritance

Regarding the second question about the dyadic correspondence between parents' intention and children's expectation, I first looked at the proportion of the four groups formed from parents' and children's dichotomous answers (See *Table 4.2*). As observed in the previous analysis, parents were more likely than their offspring to answer "yes" to the inheritance probability (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 they will leave a bequest, but for their adult children to say they don't expect an inheritance. In contrast, it was very rare (5.3%) that parents say they won't 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, I 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. I decided not to combine groups or compare all four groups separately, considering the small sample sizes of some groups (e.g., "no (parent)-yes (child)" and "no (parent)-no (child)") and different characteristics of each group. I coded correspondent dyads 1 and discordant dyads 0.

Table 4.4 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 to discordant dyads, in which parents intended to leave a bequest but their children did not expect an inheritance.

4.6 Discussion

In this study, I have taken a dyadic approach to understanding expectations of an inheritance. Most prior studies have focused on examining motives of older family members in bequest behaviors. This study extends the literature by including the perspectives of both parents and children on likelihood of giving or receiving an inheritance and the factors associated with these expectations.

First, findings of this study showed a significant difference in the expectations of inheritance between generations. 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 substantial hidden agenda, even within older families. 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 expectations and behaviors regarding the support given by offspring to parents, this finding of different perspectives in inheritance probabilities can be significant. This finding also underscores the importance of taking dyadic or familial approaches to these issues.

Drawing on two competing theories and prior studies, I examined four sets of predictors for the bequest expectations of parents and their offspring: economic resources, family characteristics, current support exchanges, and beliefs on family obligation. First, I found that three factors (e.g., parent's income, number of siblings, and downward exchanges) were significantly associated with inheritance expectations both for parents and children. For economic resources, only parent's income was positively associated with expectations on

inheritance (Cox & Rank, 1992; McGarry, 1999). 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-vivo 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).

Also, interestingly, I found that current support given to child had positive effects on inheritance expectations, while support given to 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 by children. Rather, it appears that when more support is given to a child from parents, 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 transfer (from the upper generations 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 transfer, rather than based on reciprocity (Arrondel & Masson, 2006). In addition, current downward support may reflect offspring's needs for parental support because inter-vivo transfers tend to be made in response to child's needs. Although variables about children's economic resources did not show significant effects on the 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, this study 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 due to the differential effects of these variables within families. Regarding children's 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 resources of offspring. Offspring with more resources may be less likely to expect inheritance as well as more likely to provide support to their parents.

In addition, I 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; Finch & Mason, 2000).

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, while the most common pattern of concordance was that both parents and children expected an inheritance. Since 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. The 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 bequest intention in both patterns, these factors can be interpreted as 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. Lastly, children with strong feelings of obligation toward parent were less likely to expect an inheritance. Since 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 may be more likely to have better relationships with their children than those parents who did not participate. Second, I focused on parent-child dyads, but information on other family members (e.g., siblings) can be important beyond the dyad. Decisions to provide assistance/bequest and support exchanges between a parent and an adult child emerge from complex negotiations at the level of family systems (Pezzin et al., 2008). Third, this study used household income and education as indicators of each generation's economic situation. However, assets, savings, and debt should also be taken into account.

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, which could be source of family conflict over inheritance issues. 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.

4.7 References

- Altonji, R. 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, R. 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: 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: 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.
- 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, New Jersey: Transaction.
- Cox, D. (1987). Motives for private income transfers. *Journal of Political Economy*, 95, 508-546. doi:10.1086/261470
- 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: Springer.
- Dunn, T. A., & Phillips, J. W. (1997). Do parents divide resources equally among children? Evidence from the AHEAD Survey. Aging studies Program Paper No.5. Maxwell Center for Demography and Economics of Aging. Syracuse, NY.
- Eggebeen, D. J. (1992). Family structure and intergenerational exchanges. *Research on Aging, 14*, 427-447. doi:10.1177/0164027592144001
- Finch, J., & Mason, J. (1993). *Negotiating family responsibilities*. New York: Routledge.
- Finch, J., & Mason, J. (2000). *Passing on: Kinship and inheritance in England*. New York: Routledge.
- 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 PMC: 20223807
- Gans, D., & Silverstein, M. (2006). Norms of filial responsibility for aging parents across time and generations. *Journal of Marriage and family, 68*, 961-976. doi:10.1111/j.1741-3737.2006.00307.x
- 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
- Hox, J. J. (1998). Multilevel modeling: When and why. In I. Balderjahn, R. Mathar, & M. Schader (Eds.), *Classification, data analysis, and data highways* (pp. 147-154). New York: Springer.
- 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, D.C.: 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.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: 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: 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.
- Laitner, J. (1997). Intergenerational and interhousehold economic links. In M. R. Rosenzweig & O. Stark (Eds.), *Handbook of population and family economics, Vol. 1A* (pp. 189-238). New York: Elsevier. doi: 10.1016/S1574-003X(97)80022-0
- Lee, Y. J., & Aytac, I. A. (1998). Intergenerational financial support among White, African Americans, and Latinos. *Journal of Marriage and the Family*, *60*, 426-441. doi:10.2307/353859
- Light, A., & McGarry, K. (2004). Why parents play favorites: Explanations for unequal bequests. *The American Economic Review*, *94*, 1669-1681.

- Lowenstein, A., & Daatland, S. O. (2006). Filial norms and family support in a comparative cross-national context: Evidence from the OASIS study. *Ageing and Society*, 26, 203-223. doi:10.1017/S0144686X05004502
- Lustbader, W. (1996). Conflict, emotion, and power surrounding legacy. *Generations*, 20, 54-57.
- 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 multilevel modeling of dyadic data with binary outcome using SAS PROC NL MIXED. *Computational Statistics and Data Analysis*, 50, 3663-3680. doi:10.1016/j.csda.2005.08.008
- Munnell, A., Sundén, A., Soto, M., & Taylor, C. (2003). The impact of defined contribution plans on bequests. In A. H. Munnell & A. Sundén (Eds.), *Death and dollars* (pp. 265-306). Washington, DC: Brookings Institute.
- Newsom, J. T. (2002). A multilevel structural equation model for dyadic data. *Structural Equation Modeling*, 9, 431-447. doi:10.1207/S15328007SEM0903_7
- Norton, E. C., & Van Houtven, C. H. (2006). Inter-vivos transfers and exchange. *Southern Economic Journal*, 73, 157-172. doi:10.2307/20111880
- Parrott, T. M., & Bengtson, V. L. (1999). The effects of earlier intergenerational affection, normative expectations, and family conflict on contemporary exchange of help and support. *Research on Aging*, 21, 73-105. doi:10.1177/0164027599211004
- Pennsylvania State Data Center (2001). *Research brief: Standards for defining metropolitan statistical areas announced*. Harrisburg, PA: Institute of State and Regional Affairs.
- Perozek, M. G. (1999). A reexamination of the strategic bequest motive. *Journal of Political Economy*, 106, 423-445. doi:10.1086/250015
- Pezzin, L. E., Pollak, R. A., & Schone, B. S. (2008). Family bargaining and long-term care of the disabled elderly. In A. Booth, A. C. Crouter, S. M. Bianchi, & J. A. Seltzer (Eds.), *Intergenerational caregiving* (pp. 257-275). Washington, DC: The Urban Institute Press.

- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear model: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Sarkisian, N., Gerena, M., & Gerstel, N. (2007). Extended family integration among Euro and Mexican Americans: Ethnicity, gender and class. *Journal of Marriage and Family*, 69, 40-54. doi:10.1111/j.1741-3737.2006.00342.x
- 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: 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
- Soldo, B. J., & Hill, M. S. (1993). Intergenerational transfers: Economic, demographic, and social perspectives. *Annual Review of Gerontology and Geriatrics*, 13, 187-216.
- Stum, M. S. (2000). Families and inheritance decisions: Examining non-titled property transfers. *Journal of Family and Economic Issues*, 21, 177-202.
- Wilhelm, M. O. (1996). Bequest behavior and the effect of heirs' earnings: Testing the altruistic model of bequests. *The American Economic Review*, 86, 874-892.

Table 4.1

Individual and Dyadic Characteristics of Participants

	Parent			Child			Dyad		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Age	76.06	6.26	59 - 96	49.74	4.80	40 - 60			
Male (1 = <i>yes</i>)	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 ^a	3.00	1.30	1 - 6	4.49	1.37	1 - 6			
(Re) Married (1 = <i>yes</i>)	0.48	0.50	0 - 1	0.73	0.45	0 - 1			
Self-rated health ^b	3.06	1.12	1 - 5	3.51	1.03	1 - 5			
Parental or filial obligation ^c	3.79	0.60	1 - 5	3.94	0.51	2.5 - 5			
Number of siblings							3.01	1.98	0 - 11
White (1 = <i>yes</i>)							0.68	0.47	0 - 1
Geographic distance (<i>miles</i>)							244.43	644.04	0 - 4000
Downward exchanges ^d							4.00	1.18	1.50 - 7.17
Upward exchanges ^d							4.25	1.26	1.42 - 8.00

Notes. Dyad $N = 327$. Individual $N = 600$.

^aRated from 1 (*less than \$10,000*) to 6 (*more than \$100,000*).

^bRated from 1 (*poor*) to 5 (*excellent*).

^cMean of 6 items rated from 1 (*never*) to 5 (*always*).

^dMean of 6 items rated from 1 (*less than once a year or never*) to 8 (*daily*).

Table 4.2

Frequency of Parents' and Children's Expectations on Inheritance

Child ^b (%)	Parent ^a (%)		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. Dyad $N = 327$. Observation $N = 654$.

^aIntention of leaving an inheritance for their child.

^bExpectation of receiving an inheritance from their parent.

Table 4.3

Multilevel Models to Predict Expectations on 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>						
Support given to child			0.48*	(0.19)	0.51**	(0.20)
Support given to parent			-0.14	(0.18)	0.20	(0.24)
<i>Beliefs about 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 miles</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 - Gender × 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 $N = 654$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4.4

Logistic Regression Model to Predict Dyadic Correspondence of Expectations on Inheritance

Predictors	<i>B</i>	(<i>SE</i>)	Odds Ratio
<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>			
Support given to child	0.43*	(0.19)	1.53
Support given to parent	-0.32	(0.19)	0.73
<i>Beliefs about 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 miles</i>)	0.24	(0.14)	1.27

Notes. Dyad $N = 282$; Correspondent dyads = 1 (“*yes-yes*” dyads; $n = 138$); Discordant dyads = 0 (“*yes-no*” dyads; $n = 144$).

Model χ^2 (df) = 43.956 (17), $p < .001$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER 5. STUDY 3

The Structure of Intergenerational Exchanges of Middle-Aged Adults with Their Parents and Parents-In-Law in Korea

Abstract

Study 3 investigated patterns of support exchanges between Korean adult children and their parents and parents-in-law, gender differences in these patterns, and implications of exchange patterns for children's marital quality. The sample was 937 married adults (aged 30 - 59 years) with at least one living parent and parent-in-law. Latent class analysis was applied to 12 indicators of exchanges (financial, instrumental, and emotional support given to and received from parents and parents-in-law) to classify latent patterns of exchanges. Five classes were identified, 3 showing balanced patterns of exchanges between parents and parents-in-law (*high exchanges, low exchanges, giving more than receiving to both sets of parents*), and 2 classes with imbalanced patterns (*exchanges with only own parents, giving tangible support to parents-in-law*). The exchange patterns showed significant gender differences in membership probabilities as well as associations with marital quality, including spousal support and strain. Although Korea has traditionally been a patrilineal culture, this study found substantial variability in intergenerational exchange patterns, showing a mix of patrilineal tradition and contemporary balanced patterns. Significant associations of exchange patterns with adult children's marital quality may indicate the importance for couples of balanced exchanges with parents that are not driven by obligatory norms.

Keywords: Support exchanges, Intergenerational relations, Parents-in-law, Marital quality

5.1 Significance of Research

Although a family systems perspective has emphasized the dynamics of multiple relationships within a family (Cox & Paley, 1997; Fingerman & Bermann, 2000), research on intergenerational exchanges has focused on exchanges occurring within parent-child dyads as individuals or in aggregate without considering other relationships beyond the dyad, and has not adequately captured how individuals exchange support with multiple family members (Lye, 1996; Ward, 2008). In fact, each parent or child may be involved in exchange with multiple children or parents, and those exchanges of support are likely to be affected by other relationships within a family system. Thus, for a more complete understanding of intergenerational exchanges, it is essential to take into account the fact that an individual may have multiple family members to consider when dividing their time and energy (Davey, Janke, & Savla, 2004; Silverstein & Giarrusso, 2010).

Regarding issues about multiple relationships within a family, prior studies have addressed within-family variations in intergenerational relationships and exchanges among “multiple children or siblings” (Pillemer & Suitor, 2008). However, given that intergenerational relationships are also acquired through marriage, adult children, especially married children, may have two sets of parents, their own parents and parents of their spouse, and exchange various types of support with both of them. Although the western literature on family has overlooked in-law relationships and has focused on support that is exchanged with one’s own parents, both parents and parents-in-law are central networks for married adult children (Rossi & Rossi, 1990). Recently, as research has recognized couples as a team in providing care for aging parents, a growing literature has paid attention to in-law relationships in studying intergenerational support (Henz, 2009; Szinovacz & Davey, 2008). However, these studies have examined only one direction of support, support given to parents/parents-in-law, focusing on care for elderly

parents/parents-in-law rather than routine assistance and support that adult children give to and receive from them (Ingersoll-Dayton, Starrels, & Dowler, 1996; Merrill, 1993). Given that help and assistance from aging parents/parents-in-law can still be important for middle-aged children's lives (Schoeni & Ross, 2005), it is necessary to consider both directions of support given to and received in examining the pattern of exchanges with parents and parents-in-law.

In Asian countries, which have been characterized as a patrilineal culture (e.g., China, Japan, Korea, and India), daughters-in-law are more important sources of support to their elderly parents-in-law than daughters (Choi, 1982; Cong & Silverstein, 2008; Slote & De Vos, 1998). However, with recent demographic changes and urbanization, these countries have undergone societal changes in the traditional patterns of family structures and norms. Recently, it has been indicated that the nature of intergenerational exchanges has been changing so that help is given to one's own parents and to in-laws, but there is little empirical investigation on the issue (Cho, 1997; Lee, 1999).

This study examined the structure of support exchanges that Korean married adults give and receive from both their parents and parents-in-law, focusing on how they balance between two sides of parents. I utilized data from 937 married adults (aged 30s to 50s) from the study "Successful midlife development: Mental health and work/family life course in Korea and the United States (Han, Lee, Ok, Ryff, & Marks, 2002)." Using 12 indicators of financial, instrumental, and emotional support given to and received from parents and parents-in-law that were collected from adult offspring, this study explored latent patterns of intergenerational exchanges with parents and parents-in-law. Also, I examined associations of the patterns of intergenerational exchanges with adult children's marital quality (e.g., spousal support and strain).

5.2 Background and Literature Review

5.2.1 Support Exchanges with Multiple Family Members

Although many studies of intergenerational exchanges have examined parent-child relations as individual dyads or treated children as an undifferentiated composite, decisions to provide assistance and support exchanges between a parent and an adult child emerge from complex negotiations at the level of family systems (Pezzin, Pollak, & Schone, 2008a). Thus, the exchange between a parent and any one of his or her children is likely to be affected by other relationships in the family. In particular, given the competition for and depletion of resources (e.g., money and time) that an individual or a family can provide, it would be critical to consider the existence of multiple relationships and the dynamics between family members (Davey et al., 2004; Ward, 2008). What a parent gives to one child potentially comes at a cost to what can be given to other children; likewise, what one sibling gives to a parent may reduce another sibling's responsibility accordingly (Wolf, Freeman, & Soldo, 1997).

As a within-family approach has been applied to research on assistance and care in later years, researchers have begun to pay more attention to the existence of within-family variation among multiple children in support exchanged with parents and its predictors (Henretta, Hill, Soldo, & Wolf, 1997; McGarry & Schoeni, 1997; Pillemer & Sutor, 2008). Some studies have examined within-family differences in support given to adult children (*downward flow*), focusing on how differently parents provide support among their multiple children (e.g., Fingerman, Miller, Birditt, & Zarit, 2009; Sutor, Pillemer, & Sechrist, 2006). Other studies on within-family differences have investigated support given to parents (*upward flow*), focusing on how care for elderly parents is distributed among siblings (e.g., Henretta, Soldo, & Van Voorhis, 2011; Pillemer & Sutor, 2006; Szinovacz & Davey, 2007; Wolf et al., 1997). Thus, these studies have considered that parents have relations with multiple children within a family, examining variations among adult children or siblings in support received from or given to aging parents.

However, research on within-family differences has paid little attention to the possibility that adult children also have multiple parents (e.g., own parents and parents of spouse) to consider in providing support. As a result, we know relatively little about how adult children exchange support with multiple parents and whether there are variations in the amount of support depending on children's and parents' characteristics.

5.2.2 Support Exchanges with Parents and Parents-In-Law

For married adult children, both parents and parents-in-law are central relationships for a significant portion of their lives. When married adult children must decide how to balance their exchanges with both sets of parents, they take into account differences in needs for support as well as in ranking of obligation among kin (Rossi & Rossi, 1990). Empirical findings in the United States have shown two common results. First, *parents* have greater priority on adult children's time and resources than do parents-in-law. Second, there is a strong *matrilineal preference* in the provision of assistance to aging parents (Chesley & Poppie, 2009; Lee, Spitze, & Logan, 2003; Shuey & Hardy, 2003). For example, Lee et al. (2003) showed that wives tended to give priority to assisting their own parents, whereas husbands provided assistance more equally between their own parents and their parents-in-law. Shuey and Hardy (2003) found that married couples were more responsive to the needs of wives' parents even under conditions of equal competition between the needs of parents and those of parents-in-law. Chesley and Poppie (2009) also reported that for middle-aged couples, overall time (per month) spent assisting in-laws is much smaller than time given to parents.

However, all of the work comparing parents and parents-in-law has only examined help and care given to parents and parents-in-law, and has not considered whether there are differences in support received from them (Chesley & Poppie, 2009; Lee et al., 2003; Shuey & Hardy, 2003). By focusing on just support provided, we obtain a limited view of all the

exchanges within the family. The full pattern of exchanges with parents and parents-in-law may depend on looking at both upward and downward flow of support. Another limitation of the prior literature is that it has examined different types/directions of support exchanged between parents and parents-in-law in isolation of one another (e.g., variable-centered approach) (Chesley & Poppie, 2009; Lee et al., 2003). In fact, the literature on intergenerational relations has emphasized multidimensionality and complexity of intergenerational relationships, and has attempted to incorporate multiple dimensions into some types of family (e.g., a person-centered approach; Hogan et al., 1993; Silverstein & Bengtson, 1997; Van Gaalen & Dykstra, 2006). Thus, examination of the different combinations of multiple dimensions of intergenerational exchanges can show how each family tries to balance and arrange their needs and resources between parents and parents-in-law. A person-centered approach (e.g., cluster and latent class analysis) allows us to examine whether the amounts given to parents and parents-in-law varied, for example, where some families follow patrilineal patterns, others follow matrilineal patterns, and still others respond equally to parents.

Unlike the western societies, including the United States, many Asian countries have been characterized as patrilineal cultures with strong filial obligations on sons and their families (Slote & De Vos, 1998). These cultural expectations have exerted a strong effect on the pattern of intergenerational exchanges in Asian countries, such as China, Japan, Korea, and India (Park, Phua, McNally, & Sun, 2006). Specifically, a son and daughter-in-law are expected to be the primary providers of support and care for aging parents whereas a daughter and her family do not have the obligation to provide support. However, in recent decades, Asian societies have undergone rapid demographic (e.g., low fertility and aging) and economic transitions that have challenged traditional patterns of intergenerational exchange. Some studies have argued *bilateralization* of the kinship ties in Korean families, based on the reports that there was an

increase in contacts and exchanges with maternal kinship members (Cho, 1997; Kim & Kim, 2002). However, it may not be culturally sensitive to refer to these changes as movement toward bilateral exchanges similar to western societies. Rather, the content of changes in the contemporary Korean families seems to be more complex, revealing a mixed form of patrilineal traditions and strategic responses to social/economic changes (Han & Yoon, 2004; Lee, 1999). For example, whereas adult children receive support from both sides of parents at the similar levels, they provide more support to husbands' parents than wives' parents. Also, adult children are more likely to receive financial support from a husband's parents whereas they are more likely to receive emotional and practical help from the wife's parents (Kim, 2002).

5.2.3 Intergenerational Exchange and Marital Quality

Prior studies comparing intergenerational exchanges between aging parents and in-laws have mainly examined effects of parents' and children's social characteristics (e.g., gender, employment, age, education, income, health) as main covariates (Chesley & Poppie, 2009; Lee et al., 2003; Shuey & Hardy, 2003). Although such predictors as needs and resources of parents/children are important in determining the amount of exchanges between generations, they may not reflect dynamics of married couples who split their limited resources between parents and parents-in-law. Given that relationships with parents-in-law are basically acquired through marriage, marital quality of adult offspring can have an effect on the pattern of intergenerational exchanges between parents and parents-in-law.

In fact, regarding the extended family of adults, we know relatively little about the implications of intergenerational support between adult children and parents on marital relationship (Amato, Rezac, & Booth, 1995). Many studies have examined the impact of marital instability of parents and children (e.g., divorce or remarriage) on transfers of support across generations (Furstenberg, Hoffman, & Shrestha, 1995; Pezzin, Pollak, & Schone, 2008b), but

their primary focus has been on the consequences of changes in marital status rather than the ongoing marital processes within a family system (e.g., marital quality).

In caregiving research, some studies suggest that providing care to parents has an effect on marital quality of adult offspring. For example, Suito and Pillemer (1994) found that more than one third of caregiving daughters and daughters-in-law who are caring for parents with dementia experienced changes in their marital satisfaction during a one-year period. Martire et al. (1997) found that caregiving daughters and daughters-in-law reported considerable negative spillover between the roles of wife and caregiver to a parent and that feelings of adequacy in the caregiver role were associated with greater marital satisfaction. Bookwala (2009) also reported that extended parent care lower marital happiness and increase marital role inequity of adult children. In regard to routine support exchanges, however, studies have showed mixed results about associations between intergenerational exchanges of support and marital quality among middle-aged couples. Ward and Spitze (1998) reported that intergenerational exchange has little association with marital quality for either women or men. More recently, Lee et al. (2012) also found that for middle-aged couples, the amount of support given to and received from parents had no association with the couple's marital satisfaction, though they reported that discrepancies in support given to and received from parents showed a significant association with marital satisfaction. In part, these inconsistent results on marital quality may be related to the fact that studies on routine exchanges considered exchanges only with own parents, while caregiving studies included in-law relationships, though often without reference to help to own parents.

5.3 Research Hypotheses

This study extends previous research addressing these gaps in the literature and examining support given and received by middle aged offspring to both parents and parents-in-law and considering the impact of different patterns of exchanges for marital quality. Utilizing a

nationally representative Korean midlife sample (Han et al., 2002), I examined three questions. First, when married adult children have both living parents and parents-in-law, how do they exchange different types of support (e.g., emotional, instrumental, and financial support) with both sets of parents (e.g., parents and parents-in-law)? Using 12 indicators of exchanges (i.e., 3 types of support; parents *vs.* parents-in-law; and given *vs.* received), this study identified the latent patterns of intergenerational support that Korean married adults exchange with their parents and parents-in-law. Second, given the traditional roles of daughters-in-law in patrilineal cultures as well as women's role in kin keeping, I examined differences in the pattern of exchanges with parents and parents-in-law by gender of adult offspring. Third, this study explored the implication of marital quality of adult children for the pattern of support exchanges. After controlling demographics of adult offspring and distances from parents/parent-in-law, I examined associations of the pattern of intergenerational exchanges between parents and parents-in-law with marital quality of adult offspring (e.g., spousal support and conflict).

5.4 Methods

5.4.1 Sample

This study is based on data from "*Successful midlife development: Mental health and work/family life course in Korea and the United States*" (Han et al., 2002), which was designed to correspond to the National Survey of Midlife Development in the United States (MIDUS). The sample consisted of adult men and women aged 30~59 residing in 16 municipal cities and provinces in the Korea, excluding Jeju island. The first round of the survey was conducted on 1,500 persons in their 30s, 40s and 50s in proportion to the ratio of population in November and December of 2000, but the number of respondents in their 50s was judged not to be enough for comparison of age groups with the national population. Thus, 167 additional people in this age range were added, resulting in a final sample of 1,667. Trained interviewers from a specialized

research institute conducted the interviews in individuals' own homes. For the present study, I used a sample of 937. Excluded were people who were not married ($n = 162$) and participants who did not have at least one living parents and living parents-in-law ($n = 568$).

5.4.2 Measures

Support exchanges. This study measured three types of support that middle-aged offspring exchanges with their parents and parent-in-law: *financial*, *emotional*, and *instrumental* support. Participants provided separate ratings of how frequently they gave each type of support to their parents and to their parents-in-law, and also how frequently they received that type of support from them. Ratings of support given and received were made on a 4-point scale from 1 (*not at all*) to 4 (*often*).

Covariates. The three sets of covariates were selected for their potential effects on the pattern of intergenerational exchanges: (1) demographic characteristics of participants, (2) geographic distance from parents and parents-in-law, and (3) marital quality. The descriptive statistics of the covariates appear in Table 5.1.

Demographic characteristics. Five demographic variables related to needs and resources of participants were measured: gender, age, education, household income, and employment of respondent and his/her spouse. *Gender* was dummy coded 1 for male and 0 for female, and *age* was measured as chronological years. *Education* was measured on a 4-point scale: 1 (*elementary school and under*), 2 (*middle school*), 3 (*high school*), and 4 (*college and above*). Participants indicated their household income from all sources (unit of 10,000 *won*, Korean currency). Employment status of participants and their spouse was dichotomized: 1 (*dual earner*) and 0 (*others*).

Geographic distance from parents/parents-in-law. This study measured geographic distance from parents and parents-in-law on a 6-point scale: 0 (*live together*), 1 (*within the same*

Dong/neighborhood), 2 (*within the same city*), 3 (*within the same province*), 4 (*in different province*), and 5 (*live overseas*). This ordinal scale for geographic distance from relatives reflects how people in Korea think about distance. Most Korean people have difficulty responding to questions about distance in kilometers.

Marital quality. To assess marital quality of adult children, I used two dimensions: spousal support and strain (Schuster, Kessler, & Aseltine, 1990; Walen & Lachman, 2000). *Spousal support* was measured by the following six items: (a) “How much does your spouse really care about you?,” (b) “How much does he or she understand the way you feel about things?,” (c) “How much does he or she appreciate you?,” (d) “How much do you rely on him or her for help if you have a serious problem?,” (e) “How much can you open up to him or her if you need to talk about your worries?,” and (f) “How much can you relax and be yourself around him or her?” The answers were rated on a 4-point scale (1 = *a lot*; 4 = *not at all*), and then reverse-coded so that higher scores indicate higher support from a spouse. Mean scores of 6 items were calculated ($\alpha = .84$).

The six items for *spousal strain* were: (a) “How often does your spouse make too many demands on you?,” (b) How often does he or she argue with you?,” (c) “How often does he or she make you feel tense?,” (d) “How often does he or she criticize you?,” (e) “How often does he or she let you down when you are counting on him or her?,” and (f) “How often does he or she get on your nerves?” These items were answered on a 4-point scale from 1 (*often*) to 4 (*never*). Items were also reverse-coded so that higher scores reflect higher strain with spouse. Mean scores of six items were calculated as summary scores ($\alpha = .88$).

5.4.3 Analysis Plan

To classify the pattern of intergenerational support that married adults exchange with their parents and parents-in-law, I applied a latent class analysis (LCA). Conceptually, LCA is

similar to cluster analysis but is based on a measurement model much like factor analysis. It posits that an underlying grouping variable (i.e., a latent class variable) is not observed but can be inferred from a set of categorical indicators (Collins & Lanza, 2010). In LCA, multiple dimensions of a certain behavior or phenomenon can be incorporated, rather than treating each dimension individually.

Due to the complexity of family interactions and multidimensionality of intergenerational relationships, prior studies have used LCA to investigate the structure of intergenerational relationships/exchanges between adult children and parents (Hogan et al., 1993; Park et al., 2006; Silverstein & Bengtson, 1997; Van Gaalen & Dykstra, 2006). For example, Hogan et al (1993) found four latent classes of intergenerational exchanges (e.g., low exchanger, advice givers, high exchangers, and receivers) based on eight indicators of support exchanges (e.g., giving and receiving money, advice, care, and assistance). In addition, Van Gaalen and Dykstra (2006) reported five types of adult child-parent relationships, using eight indicators reflecting solidarity and conflict between adult children and parents. Thus, using LCA, prior studies have attempted to examine some patterns of aging families, incorporating various dimensions of intergenerational relations. However, these studies have focused on support exchanges and relationships between adult children and their own parents. Therefore, this study attempted to expand the literature on intergenerational exchanges by considering support exchanges with both sides of parents that married adults have.

Before applying LCA, which is based on a contingency table of categorical variables, the original scales of support exchanges were dichotomized to ensure having a manageable number of cells in the data matrix: *yes* (combining two answer categories, “*sometimes*” and “*often*”) and *no* (combining two answer categories, “*not at all*” and “*rarely*”). The LCA analysis uses 12 indicators of support exchanges: two directions of support flow (e.g., *giving* and *receiving*) ×

three types of support (e.g., *financial*, *emotional*, and *instrumental*) \times two sets of parents (e.g., *own parents* and *parents-in-law*). The contingency table of the 12 indicators was analyzed, using the PROC LCA, SAS program in which maximum-likelihood parameter estimates are obtained through EM-type procedure (Lanza, Collins, Lemmon, & Schafer, 2007).

LCA is a model-based procedure, which means that models with different numbers of latent classes can be compared by several goodness-of-fit statistics, such as the likelihood ratio chi-square test statistic (G^2), the Akaike's Information Criterion (AIC), and Bayesian Information Criterion (BIC). Based on these statistics, the optimal number of latent classes was determined, considering parsimoniousness and interpretation of model. In addition, LCA provides two kinds of parameter estimates, including class membership probabilities (γ_c) and item-response probabilities (ρ_{ic}). Class membership probabilities represent the proportion of a population expected to belong in each latent class. The probabilities sum to one. The estimates are useful for describing the prevalence of types within a population and for comparing prevalence between subgroups. Item-response probabilities reflect the probability of different responses to the items, conditional on latent class membership. The parameter estimates are analogous to factor loadings in that they provide the basis on which each latent class is interpreted and labeled.

Using the selected model, the three sets of covariates (e.g., adult children's demographics, geographic distance from parents/parents-in-law, and marital quality) were examined. For the effects of the covariates on latent class membership, a multinomial logistic regression was applied, due to the categorical nature of the dependent variable (i.e., classes of intergenerational exchanges). In the multinomial logistic regression model, odds ratios were obtained to describe the increase in odds of membership in a particular latent class (relative to a reference latent class) corresponding to a one-unit change in the covariate.

5.5 Results

5.5.1 Latent Patterns of Intergenerational Exchanges with Parents and Parents-In-Law

First, models with different numbers of latent class were compared to select a model with the optimal balance of fit (See *Table 5.2* for details on model fit). Comparison of model fit statistics revealed that a 5-class model would be optimal because adding more classes to the model did not show significant decreases of the Bayesian Information Criterion.

Table 5.3 summarizes the results of the 5-class model, including the class membership probabilities and item response probabilities, which provide a basis for assigning meaningful labels to each class. Because the primary focus of this study was on how adult children balance exchanges between parents and parents-in-law, classes were first distinguished into balanced and imbalanced patterns based on whether the pattern of exchanges is similar between parents and parents-in-law (*Figure 5.1*). As a result, among five classes, three classes (60% of participants) revealed balanced patterns between parents and parents-in-law, while two classes reflected imbalanced patterns between parents and parents-in-law (40% of participants).

The first class of balanced pattern was labeled as “*high exchanges*,” showing high probabilities of exchanges with both sets of parents (16%). Adult children in this class are likely to give and receive all three types of support frequently with both parents and parents-in-law. The second class of balanced pattern is “*low exchanges*” and 22% of adult children belonged to this class. Adult children in this class overall have low probabilities of exchanging support with both parents and parents-in-law, though the probability of giving financial support to parents and parents-in-law is at a moderate level (0.30 for parents and 0.27 for parents-in-law). The third class of balanced pattern was labeled as “*giving more than receiving*” (23%), showing a pattern of giving to both sides of parents more than receiving from them. This class reflected the role of

middle-aged children as a support provider to elderly parents and parents-in-law.

Among imbalanced patterns, the first class was referred to as “*exchanges only with own parents*” where adult children (24%) showed moderate levels of exchanges with own parents, and very low exchanges with parents-in-law. The second imbalanced pattern was labeled as “*giving tangible support to parents-in-law*” and 17% of adult children belonged to this pattern. Adult children in this class reported high (for emotional support) and moderate (for financial and instrumental support) levels of exchanges with own parents, but with parents-in-law, they are likely to give only tangible forms of support (financial and instrumental) rather than receiving from them. This pattern represents a typical obligatory pattern of exchanges with parents-in-law, with high levels of tangible support given to in-laws, but low levels of emotional support exchanged between them.

5.5.2 Gender Differences in Membership Probabilities of Latent Class

To examine how probabilities of being a member of each class differ by gender of adult offspring, gender was added to the five-class model as a grouping variable with measurement invariance held across gender (See top rows in *Table 5.3*). Males and females were equally likely to belong to Class 1 (*high exchanges*; 16% vs. 17% respectively), but gender differences in the membership probabilities were observed in other four classes. Specifically, males were more likely than females to be a member of Class 2 (*low exchanges*; 24% vs. 20%) and Class 4 (*exchanges only with own parents*; 41% vs. 6%). In contrast, females were more likely than males to belong to Class 3 (*giving more than receiving*; 27% vs. 19%) and Class 5 (*giving tangible support to parents-in-law*; 35% vs. 0%). The gender differences of the class membership probabilities, especially in imbalanced patterns, underscore gendered roles of women as support provider/kin-keeper as well as patrilineal patterns in Korean families.

5.5.3 Effects of Marital Quality on Exchange Patterns with Parents and Parents-In-

Law

Table 5.4 shows the results of the multinomial logistic regression analyses to examine effects of marital quality in distinguishing different patterns of exchanges with parents and parents-in-law. Since all covariates were entered simultaneously in a single model, the results reflect the relative effect of each covariate when all other covariates are held constant. Class 1 (*high exchanges - balanced pattern*) was specified as the reference class for the multinomial regression.

After controlling demographic variables of respondents and geographic distance from their parents and parents-in-law, both dimensions of marital quality showed a significant association with the class membership ($p < .001$ for spousal support; $p < .05$ for spousal strain), especially, with membership of imbalanced classes. Regarding effects of spousal support, for every one-unit increase in support, odds of membership of Class 2 (*low exchanges*; OR = 0.39), Class 4 (*exchanges only with own parents*; OR = 0.44), and Class 5 (*giving parents-in-law only tangible support*; OR = 0.64) decreased relative to Class 1 (*high exchanges*) whereas there was an increase in odds of being a member of Class 3 (*giving more than receiving*; OR = 1.22). Thus, the results suggest that respondents who reported higher levels of spousal support were less likely to show imbalanced patterns between parents and parents-in-law and a low exchange pattern.

Next, spousal strain was also predictive of membership, and the effect was more prominent in distinguishing imbalanced classes. A one-unit increase in spousal strain corresponds to higher odds of belonging to Class 5 (*giving parents-in-law only tangible support*; OR = 1.99) and lower odds of membership of Class 4 (*exchanges only with own parents*; OR = 0.46) relative to the reference class. However, regarding levels of spousal strain, odds of membership in the three balanced classes (Class 1, 2, and 3) were similar (OR = 1.00, 1.07, and

1.11 respectively).

5.5 Discussion

The first aim of this study was to classify the patterns of support exchanges between adult children and their parents and parents-in-law. The result of LCA identified five distinct classes of intergenerational exchanges, and the proportions of participants who belong to each latent class evenly ranged between 16% and 24%. These results suggested variability in the exchange pattern, rather than revealing some dominant, normative patterns. Looking at each pattern, intergenerational exchanges of contemporary Korean families appear characterized by mixed patterns of patrilineal tradition and bilateral changes. Despite variations of the levels of support depending on the direction of flow and type of support (e.g., *high exchanges*, *low exchanges*, and *giving more than receiving*), three classes appear to follow bilateral rules when exchanging support with parents and parents-in-law, responding equally to both sets of parents. It is interesting that a substantial proportion of adult children (60%) reported these balanced patterns of exchanges between parents and parents-in-law. The frequency of these balanced patterns may reflect changes of Korean families from traditional patrilineal kinship patterns.

Meanwhile, the other two classes revealed asymmetric patterns of exchanges between parents and parents-in-law. The two classes did not differ in the levels of exchanges with own parents, showing moderate to high probabilities of exchanges across all types of support. Rather, the imbalanced classes were distinct from each other in terms of the exchanges with parents-in-law. One class does not exchange with parents-in-law at all. Given that this class is almost entirely composed of males, the asymmetric pattern appears to be consistent with the typical patrilineal tradition of greater emphasis on husbands' kinships. However, the other imbalanced class does not fit the traditional pattern. Specifically, participants in this class (almost all females) show obligatory patterns of exchanges toward parents-in-law, providing monetary

support or instrumental assistance/care to parents-in-law, but also frequent exchanges (especially, emotional exchanges) with their own parents after marriage. Thus, this pattern suggests that whereas social changes toward egalitarian and bilateral kinships have increased and strengthened ties and exchanges with own parents for women after marriage, for these women obligatory duties and responsibilities toward parents-in-law in Korean families are still persistent.

Next, this study found gender differences in membership probabilities of all exchange patterns except one class. Gender differences in two balanced patterns confirm the roles of women as kin-keepers and principle support providers in the family. Specifically, females are more likely than males to be involved in exchanging help with parents/parents-in-law, which has been commonly observed in western societies. However, gender differences in imbalanced patterns reflect patrilineal priority in exchanging support with parents/parents-in-law in Korean families. The participants who exchange support with only own parents are almost males, whereas females tend to exchange support with their own parents as well as provide tangible support to parents-in-law. Thus, males clearly give greater priority to relations with their own parents, showing a biggest proportion of the pattern (41%). In contrast, women (35%) appear to respond to both sides of parents, though the nature of exchanges with parents-in-law is characterized by a lack of emotional support compared to own parents.

Lastly, the findings showed that pattern of exchanges between parents and parents-in-law are significantly associated with adult children's marital quality. This has importance in two aspects. First, consistent with a family systems perspective, the findings show the possibility of reciprocal influences between marital relationships and intergenerational exchanges between parents and parents-in-law across subsystems within families (e.g., marital subsystems and parent-child subsystem). Literature based on family systems theory has documented an association between marital dissatisfaction or conflict and problematic outcomes for children and

adolescents and disturbances in parent-child relationships (Cummings, 1994). Work in child and adolescent development has shown that conflict in the marital dyad, as a subsystem of family, is likely to extend to other parts of the family system, such as parent-child relationship and sibling relationship (Gano-Philips & Fincham, 1995). However, regarding the extended family of adults, we know relatively little about the implications of intergenerational support between adult children and parents on other family subsystems (e.g., marital relationship). The findings suggest that relationship with parents-in-law is important in examining associations between parent-child subsystems and marital subsystems in adult families.

Second, examining associations of marital quality with the pattern of exchanges may shed light on the implications of cultural changes in exchange patterns for adult children. In this study, I was able to compare marital quality of adult children who followed the traditional imbalanced pattern (e.g., men helping own parents and women helping in-laws) and those who followed balanced patterns. According to the findings, more balanced allocation of aid toward parents/parents-in-law was associated with higher levels of spousal support for adult children. In addition, participants who provide tangible support to parents-in-law experienced higher levels of strain with spouse than people who showed balanced exchanges with parents and parents-in-law. Traditional cultural patterns in parent support may lead to tensions in the relationship, where wives have expectations for a more bilateral kinship patterns. Conversely, these marriages may reflect overall a more traditional marriage, with an emphasis on obligations rather than marital quality. Likewise, the balanced patterns may reflect more contemporary expectations both toward parents and in-laws and marriage. The high exchangers may be more open and positive in all their relationships - with a spouse, parents, and in-laws. Although participants who exchange support with only own parents experience lower levels of strain, this result may reflect relatively low expectations for men to provide support to their parents-in-law.

Thus, for husbands following the tradition of exchanges may not invoke much marital conflict, compared to wives.

Some limitations of this study should be noted. First, the data relied on children's reports about giving and receiving support, but I do not have information from parents about these exchanges. Further, this study mainly considered children's characteristics as control variables in examining effects of marital quality on class membership, though I included proximity from parents and parents-in-law. Given that exchanges of support are often contingent on needs and resources of givers as well as receivers (Eggebeen & Davey, 1998), characteristics of parents and parents-in-law (e.g., income, marital status, and health) may condition the patterns of support exchanges. Second, in the analysis, I considered adult offspring's relationships with own parents and parents-in-law. However, the approach toward kinship and lineages may not be culturally sensitive. Traditionally, meanings of lineage in Asian cultures have been asymmetrical between wives and husbands, with more emphasis on paternal (i.e., husbands' kinship) than maternal lineage (i.e., wives' kinship). This approach blurs this distinction somewhat, though the implications of lineage should clearly emerge in the treatment of gender and typologies of exchanges. Third, though I was interested in married couples, this study used individuals as the unit of analysis. Given that division of roles between wives and husbands, roles that spouses are performing in exchanges of support with parents/parents-in-law should be assessed together.

Intergenerational family members are vital sources of social support across all societies, but rules of exchanges are often prescribed in the historical and cultural traditions of each society. This study considered the cultural context for intergenerational exchanges by examining the structure of support exchanges with own parents and parents-in-law among Korean married adults. Although in-law relations have been underrepresented in the western family literature,

considering multiple parents, including both parents and parents-in-law would be critical for a more comprehensive understanding of intergenerational exchanges in contexts of family systems.

5.6 References

- Amato, P. R., Rezac, S. J., & Booth, A. (1995). Helping between parents and young adult offspring: The role of parental marital quality, divorce and remarriage. *Journal of Marriage and the Family*, *57*, 363-374. doi:10.2307/353690
- Bookwala, J. (2009). The impact of parent care on marital quality and well-being in adult daughters and sons. *Journal of Gerontology: Psychological Sciences*, *64B*, P339-P347. doi:10.1093/geronb/gbp018
- Chesley, N., & Poppie, K. (2009). Assisting parents and in-laws: Gender, type of assistance, and couples' employment. *Journal of Marriage and Family*, *71*, 247-262. doi:10.1111/j.1741-3737.2009.00597.x
- Cho, C. M. (1997). The study of the bilateralization of Korean kin relationship. *Journal of Korean Women's Studies*, *13*(1), 87-114. (In Korean)
- Choi, J. S. (1982). *Studies of modern families*. Seoul: Iljisa. (in Korean)
- Collins, L. M., & Lanza, S. T. (2010). *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. New York: Wiley.
- Cong, E., & Silverstein, M. (2008). Intergenerational support and depression among elders in rural China: Do daughters-in-law matter? *Journal of Marriage and Family*, *70*, 599-612. doi:10.1111/j.1741-3737.2008.00508.x
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Reviews of Psychology*, *48*, 243-267. doi:10.1146/annurev.psych.48.1.243
- Cummings, E. M. (1994). Marital conflict and children's functioning. *Social Development*, *3*, 16-36. doi:10.1111/j.1467-9507.1994.tb00021.x
- 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: Springer.
- Eggebeen, D. J., & Davey, A. (1998). Do safety nets work? The role of anticipated help in times of need. *Journal of Marriage and Family*, *60*, 939-959. doi: 10.2307/353636
- Fingerman, K. L., & Bermann, E. (2000). Applications of family systems theory to the study of adulthood. *International Journal of Aging and Human Development*, *51*, 5-29.

- 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
- Furstenberg, F. F., Jr., Hoffman, S. D., & Shrestha, L. (1995). The effect of divorce on intergenerational transfers: New evidence. *Demography*, *32*, 319-333. doi:10.2307/2061683
- Gano-Philips, S., & Fincham, F. D. (1995). Family conflict, divorce, and children's adjustment. In M. A. Fitzpatrick & A. L. Vangelisti (Eds.), *Explaining family interactions* (pp. 206-231). Thousand Oaks, CA: Sage.
- Han, G., & Yoon, S. E. (2004). The bilateralization of the kinship relations in Korean Families: Focused on the intergenerational exchange. *Korea Journal of Population Studies*, *27*, 177-203. (In Korean)
- Han, G., Lee, J., Ok, S., Ryff, C. D., & Marks, N. F. (2002). Gender, social roles, and mental health in mid-life. *Journal of the Korean Gerontological Society*, *22*, 209-225. (In Korean)
- Henretta, J. C., Hill, M. S., Li, W., Soldo, B. J., & Wolf, D. A. (1997). Selection of children to provide care: The effect of earlier parental transfers. *Journal of Gerontology*, *52B*, 110-119. doi:10.1093/geronb/52B.Special_Issue.110
- Henretta, J. C., Soldo, B. J., & Van Voorhis, M. F. (2011). Why do families differ? Children's care for an unmarried mother. *Journal of Marriage and Family*, *73*, 383-395. doi:10.1111/j.1741-3737.2010.00813.x
- Henz, U. (2009). Couples' provision of informal care for parents and parents-in-law: Far from sharing equally? *Ageing and Society*, *29*, 369-395. doi: 10.1017/S0144686X08008155
- Hogan, D. P., Eggebeen, D. J., & Clogg, C. C. (1993). The structure of intergenerational exchanges in American families. *American Journal of Sociology*, *98*, 1428-1458. doi:10.1086/230194
- Ingersoll-Dayton, B., Starrels, M. E., & Dowler, D. (1996). Caregiving for parents and parents-in-law: Is gender important? *The Gerontologist*, *36*, 483-491. doi:10.1093/geront/36.4.483
- Kim, S. O., & Kim, S. J. (2002). Kinship behavior of marital couples in early stage. *Journal of Human Life Science*, *5*, 195-215. (In Korean)

- Kim, S. Y. (2002). Kin relationship. In D. W. Lee, H. J. Kim, S. H. Choi, I. H. Ham, & S. Y. Kim (Eds.), *Current Korean families*. Seoul, Korea: Hakjisa. (In Korean)
- Lanza, S. T., Collins, L. M., Lemmon, D. R., & Schafer, J. L. (2007). PROC LCA: A SAS procedure for latent class analysis. *Structural Equation Modeling, 14*, 671-694.
doi:10.1080/10705510701575602
- Lee, E., Spitze, G., & Logan, J. R. (2003). Social support to parents-in-law: The interplay of gender and kin hierarchies. *Journal of Marriage and Family, 65*, 396-403.
doi:10.1111/j.1741-3737.2003.00396.x
- Lee, J. E., Zarit, S. H., Rovine, M. J., Birditt, K. S., & Fingerman, K. L. (2012). Middle-aged couples' exchanges of support with aging parents: Patterns and association with marital satisfaction. *Gerontology, 58*, 88-96. doi: 10.1159/000324512
- Lee, J. K. (1999). Modern transformation of Korean family: Feminist analysis. *Journal of Korean Women's Studies, 15*(2), 55-86. (In Korean)
- Lye, D. N. (1996). Adult child-parent relationships. *Annual Review of Sociology, 22*, 79-102.
doi:10.1146/annurev.soc.22.1.79
- Martire, L., Stephen, M. A. P., & Frank, M. M. (1997). Multiple roles of women caregivers: Feelings of mastery and self-esteem as predictors of psychosocial well-being. *Journal of Women and Aging, 9*, 117-131. doi:10.1300/J074v09n01_10
- 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
- Merrill, D. M. (1993). Daughters-in-law as caregivers to the elderly. *Research on Aging, 15*, 70-91. doi:10.1177/0164027593151004
- Park, K. S., Phua, V., McNally, J., & Sun, R. (2005). Diversity and structure of intergenerational relationships: Elderly parent-adult child relations in Korea. *Journal of Cross-Cultural Gerontology, 20*, 285-305. doi:10.1007/s10823-006-9007-1
- Pezzin, L. E., Pollak, R. A., & Schone, B. S. (2008a). Family bargaining and long-term care of the disabled elderly. In A. Booth, A. C. Crouter, S. M. Bianchi, & J. A. Seltzer (Eds.), *Intergenerational caregiving* (pp. 257-275). Washington, DC: The Urban Institute Press.

- Pezzin, L. E., Pollak, R. A., & Schone, B. S. (2008b). Parental marital disruption, family type, and transfers to disabled elderly parents. *Journal of Gerontology: Social Sciences*, *63B*, S349-S358. doi:10.1093/geronb/63.6.S349
- Pillemer, K., & Suito, J. J. (2006). Making choices: A within-family study of caregiver selection. *The Gerontologist*, *46*, 439-448. doi:10.1093/geront/46.4.439
- Pillemer, K., & Suito, J. J. (2008). Intergenerational support care, and relationship quality in later life. In A. Booth, A. C. Crouter, S. M. Bianchi, & J. A. Seltzer (Eds.), *Intergenerational caregiving* (pp. 195-232). Washington, DC: The Urban Institute Press.
- Rossi, A. S., & Rossi, P. H. (1990). *Of human bonding: Parent-child relations across the life course*. New York: Aldine de Gruyter.
- Schoeni, R. F., & Ross, K. E. (2005). Material assistance from families during the transition to adulthood. In R. A. Settersten, Jr., F. F. Furstenberg, Jr., & R. G. Rumbaut (Eds.), *On the frontier of adulthood: Theory, research, and public policy* (pp. 396-416). Chicago: University of Chicago Press.
- Schuster, T. L., Kessler, R. C., & Aseltine, R. H., Jr. (1990). Supportive interactions, negative interactions, and depressive mood. *American Journal of Community Psychology*, *18*, 423-438. doi:10.1007/BF00938116
- Shuey, K., & Hardy, M. A. (2003). Assistance to aging parents-in-law: Does lineage affect family allocation decisions? *Journal of Marriage and Family*, *65*, 418-431. doi:10.1111/j.1741-3737.2003.00418.x
- Silverstein, M., & Bengtson, V. L. (1997). Intergenerational solidarity and the structure of adult child-parents relationships in American families. *American Journal of Sociology*, *103*, 429-460. doi:10.1086/231213
- Silverstein, M., & Giarrusso, R. (2010). Aging and family life: A decade review. *Journal of Marriage and Family*, *72*, 1039-1058. doi:10.1111/j.1741-3737.2010.00749.x
- Slote, W. H., & De Vos, G. A. (1998). *Confucianism and the family*. Albany, NY: State University of New York Press.
- Suito, J. J., & Pillemer, K. (1994). Family caregiving and marital satisfaction: Findings from a one year panel study of women caring for parents with dementia. *Journal of Marriage and the Family*, *56*, 681-690. doi:10.2307/352878

- Suitor, J. J., Pillemer, K., & Sechrist, J. (2006). Within-family differences in mothers' support to adult children. *Journal of Gerontology: Social Science*, *61B*, S10-S17.
doi:10.1093/geronb/61.1.S10
- Szinovacz, M. E., & Davey, A. (2007). Changes in adult child caregiver networks. *The Gerontologist*, *47*, 280-295. doi:10.1093/geront/47.3.280
- Szinovacz, M., & Davey, A. (2008). The division of parent care between spouses. *Ageing and Society*, *28*, 571-597. doi:10.1017/S0144686X07006915
- Van Gaalen, R. I., & Dykstra, P. A. (2006). Solidarity and conflict between adult children and parents: A latent class analysis. *Journal of Marriage and Family*, *68*, 947-960.
doi:10.1111/j.1741-3737.2006.00306.x
- Walen, H. R., & Lachman, M. E. (2000). Social support and strain from partner, family and friends: Costs and benefits for men and women in adulthood. *Journal of Social and Personal Relationships*, *17*, 5-30. doi:10.1177/0265407500171001
- Ward, R. A. (2008). Multiple parent-adult child relations and well-being in middle and later life. *Journal of Gerontology: Social Sciences*, *63B*, S239-S247. doi:10.1111/j.1741-3737.2008.00587.x
- Ward, R. A., & Spitze, G. (1998). Sandwiched marriages: The implications of child and parent relations for marital quality in midlife. *Social Forces*, *77*, 647-666. doi:10.2307/3005542
- Wolf, D. A., Freedman, V., & Soldo, B. J. (1997). The division of family labor: Care for elderly parents. *Journal of Gerontology*, *52B*, 102-109.
doi:10.1093/geronb/52B.Special_Issue.102

Table 5.1

Descriptive Summary for Covariates

	<i>Mean</i>	<i>SD</i>	<i>Range</i>	<i>α</i>
<i>Demographic characteristics</i>				
Age	39.17	6.30	30 - 58	
Female (yes = 1)	46.70	0.50	0 - 1	
Education ^a	3.31	0.67	1 - 4	
Household income ^b	277.42	318.46	0 - 5310	
Dual earner (yes = 1)	0.49	0.50	0 - 1	
<i>Geographic distance^c</i>				
From parents	2.83	1.27	0 - 5	
From parents-in-law	2.82	1.26	0 - 5	
<i>Marital quality^d</i>				
Spousal support	2.94	0.50	1 - 4	0.84
Spousal strain	1.94	0.53	1 - 4	0.88

Notes. $N = 937$.

^aRated on a 4-point scale from 1 (*elementary school and under*) to 4 (*college and above*).

^bUnit of 10,000 Won (*Korean currency*).

^cRated on a 6-point scale from 0 (*live together*) to 5 (*live overseas*).

^dRated on a 4-point scale from 1 (*not at all / never*) to 4 (*a lot / often*).

Table 5.2

Model Fits of Latent Class Models

Model	G^2	df	AIC	BIC
2-class	2912.81	4070	2962.81	3083.83
3-class	2544.28	4057	2620.28	2804.22
4-class	2251.03	4044	2353.03	2599.90
5-class	2079.49	4031	2207.49	2517.29
6-class	1987.94	4018	2141.94	2514.66
7-class	1915.39	4005	2095.39	2531.03

Notes. $N = 937$.

Table 5.3

Membership and Item Response Probabilities of 5-Class Model

	Total Sample	Balanced Pattern			Imbalanced Pattern	
		Class 1	Class 2	Class 3	Class 4	Class 5
	Yes (%)	<i>High exchanges</i>	<i>Low exchanges</i>	<i>Giving more than receiving</i>	<i>Exchanges with only own parents</i>	<i>Giving tangible support to parents-in-law</i>
Class membership probability (γ_c)						
<i>Total</i>		0.16	0.22	0.23	0.24	0.17
Male		0.16	0.24	0.19	0.41	0.00
Female		0.17	0.20	0.27	0.06	0.35
Item response probability (ρ_{ic})						
<i>With Parents</i>						
Financial support - Given	57.0	0.75	0.30	0.63	0.72	0.47
Financial support - Received	35.5	0.64	0.12	0.26	0.31	0.57
Emotional support - Given	62.8	0.94	0.07	0.74	0.68	0.84
Emotional support - Received	57.1	0.97	0.09	0.56	0.56	0.86
Instrumental support - Given	47.5	0.92	0.09	0.32	0.71	0.44
Instrumental support - Received	34.1	0.92	0.02	0.05	0.39	0.55
<i>With Parents-in-law</i>						
Financial support - Given	50.5	0.78	0.27	0.66	0.29	0.62
Financial support - Received	28.7	0.64	0.13	0.42	0.15	0.15
Emotional support - Given	43.0	0.94	0.03	0.92	0.12	0.18
Emotional support - Received	35.3	0.91	0.04	0.73	0.10	0.04
Instrumental support - Given	41.7	0.87	0.13	0.57	0.15	0.50
Instrumental support - Received	28.1	0.82	0.06	0.37	0.14	0.12

Notes. $N = 937$.

Table 5.4

Odds Ratios for Effects of Covariates on Latent Class Membership

	Δ -2 Log Likelihood ^b ($\Delta df = 4$)	Balanced Pattern			Imbalanced Pattern	
		Class 1 ^a <i>High exchanges</i>	Class 2 <i>Low exchanges</i>	Class 3 <i>Giving more than receiving</i>	Class 4 <i>Exchanges with only own parents</i>	Class 5 <i>Giving tangible support to parents-in-law</i>
<i>Demographic characteristics</i>						
Age	31.49***	(1.00)	1.01	1.06	1.08	0.95
Female (yes = 1)	34.51***	(1.00)	0.84	1.33	0.03	2.24
Education	12.85*	(1.00)	0.47	0.72	0.57	0.81
Household income	6.12	(1.00)	1.00	1.00	1.00	1.00
Dual earner (yes = 1)	6.64	(1.00)	0.73	1.10	0.80	0.59
<i>Geographic distance</i>						
From parents	28.80***	(1.00)	1.33	1.31	0.93	0.83
From parents-in-law	30.99***	(1.00)	1.37	1.14	2.07	1.46
<i>Marital quality</i>						
Spousal support	20.38***	(1.00)	0.39	1.22	0.44	0.64
Spousal strain	10.88*	(1.00)	1.07	1.11	0.46	1.99

Notes. $N = 937$.

^aReference class (Class 1 = *high exchanges - balanced pattern*) has odds ratio of 1.00.

^b P values represent the overall effect of each covariates controlling for the others based on a Log Likelihood difference test.

* $p < .05$. ** $p < .01$. *** $p < .001$.

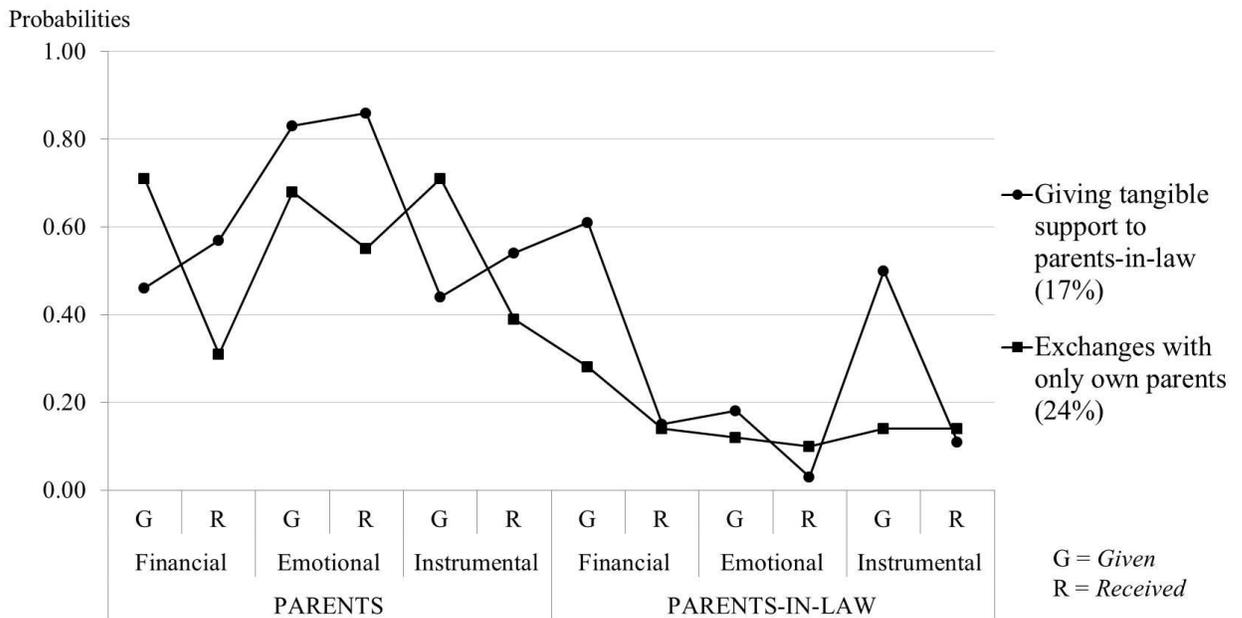
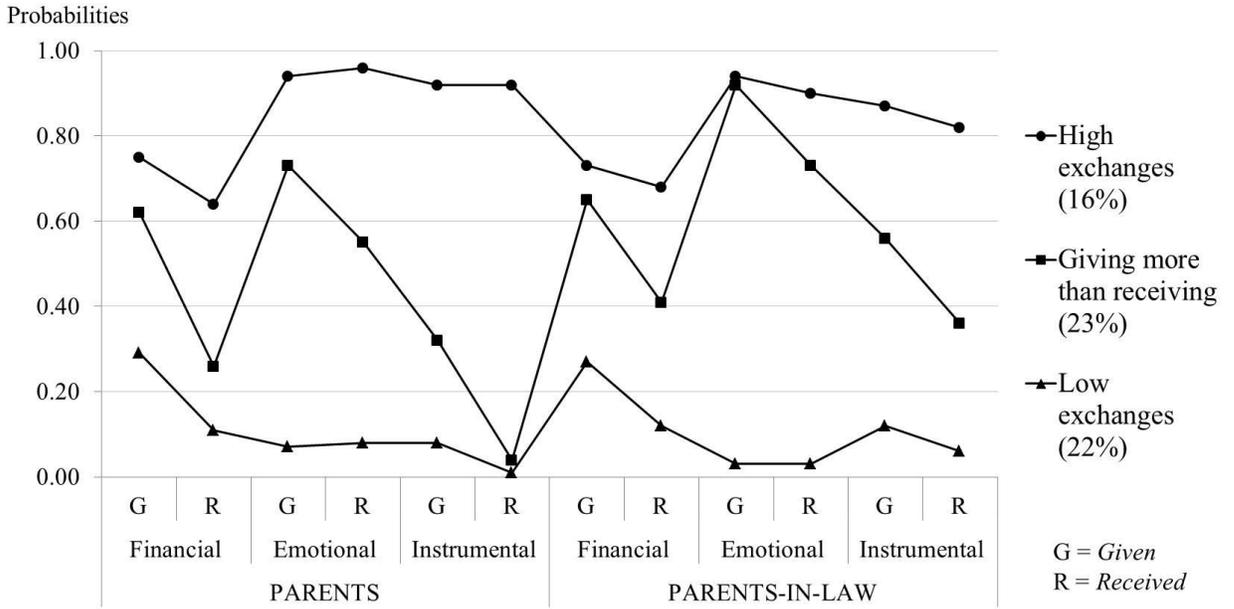


Figure 5.1. Item Response Probabilities of 5-Class Model.

VITA
Kyungmin Kim

EDUCATION

- 2012 **Ph.D.** in Human Development and Family Studies, Pennsylvania State University
2004 **M.A.** in Child Development and Family Studies, Seoul National University, Republic of Korea
2002 **B.A.** in Social Welfare and **B.H.E.** in Child Development and Family Studies, Seoul National University, Republic of Korea, *Cum Laude* (double major)

HONORS AND AWARDS

- 2011-2012 Kligman Graduate Fellowship Endowment, College of Health and Human Development, Pennsylvania State University
2011 RAND Summer Institutes Scholarship, Santa Monica, CA
2006 Top-up Award (\$2,040), Pennsylvania State University
1997-2003 Merit-Based Scholarship, Seoul National University, Republic of Korea

RESEARCH EXPERIENCE

- 2008-2012 RA for “Daily Stress and Health Study” (RO1 AG031758)
2011-2012 RA for “Family Exchanges Study II” (2R01 AG027769)
2007-2011 RA for “The Psychology of Intergenerational Transfers” (R01 AG027769)
2006-2008 RA for “Adaptive Interventions for At-Risk Caregivers” (R34 MH073559-01)
2002-2004 RA for “Successful Midlife Development: Survey on Mental Health and Work/Family Life Course in Korea and the United States” (KRF-99-042-D00174), Republic of Korea

TEACHING EXPERIENCE

- 2007-2011 TA for “Introduction of HDFS” (Sherry E. Corneal)
 TA for “Adult Development and Aging” (Steven H. Zarit; Lindsay H. Ryan; Carolyn H. Johnson)
 TA for “Family Development” (Carolyn H. Johnson; Rukmalie Jayakody; Christina M. Wolfe)
 TA for “Family Relationships” (David J. Eggebeen)

PUBLICATIONS

- Reamy, A. M., **Kim, K.**, Zarit, S. H., & Whitlatch, C. J. (in press). Values and preferences of individuals’ with dementia: Perceptions of family caregivers over time. *The Gerontologist*.
- Kim, K.**, Zarit, S. H., Femia, E. E., & Savla, J. (2012). Kin relationship between caregivers and people with dementia: Stress and response to intervention. *International Journal of Geriatric Psychiatry, 27*, 59-66.
- Kim, K.**, Zarit, S. H., Eggebeen, D. J., Birditt, K. S., & Fingerman, K. L. (2011). Discrepancy in reports of support exchanges between middle-aged children and their aging parents. *Journal of Gerontology: Psychological Sciences, 66B*, 527-537.
- Zarit, S. H., **Kim, K.**, Femia, E. E., Almeida, D. M., Savla, J., & Molenaar, P. C. M. (2011). Effects of adult day care on daily stress of caregivers: A within-person approach. *Journal of Gerontology: Psychological Sciences, 66B*, 538-546.
- Reamy, A. M., **Kim, K.**, Zarit, S. H., & Whitlatch, C. J. (2011). Understanding discrepancy in perceptions of values: Individuals with mild dementia and their family caregivers. *The Gerontologist, 51*, 473-483.
- Zarit, S. H., Femia, E. E., **Kim, K.**, & Whitlatch, C. J. (2010). The structure of risk factors and outcomes for family caregivers: Implications for assessment and treatment. *Aging and Mental Health, 14*, 220-231.
- Kim, K.**, & Han, G. (2004). The effects of family life events on psychological well-being of the middle-aged men and women. *Journal of the Korean Gerontological Society, 24*(3), 211-231.
- Han, G., Kim, J., & **Kim, K.** (2003). Supportive and conflictual social networks and mental health of the middle-aged in Korea: Does it vary by gender? *Journal of the Korean Gerontological Society, 23*(2), 155-170.