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Changes in Grandchildren's Adult Role Statuses and Their Relationships with Grandparents

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Abstract

This study examines the associations between grandchildren's ($N = 1,170$) adult role transitions and their contact with, and closeness to, grandparents, by drawing on data from Waves 2 and 3 of the National Survey of Families and Households. Findings indicate that this relationship is frequently contingent on the nature of the adult role in question, a specific dimension of intergenerational solidarity (i.e., contact vs. closeness), lineage, and grandparent's gender. The effect of grandchildren's adult roles on grandparent-grandchild ties may also differ for grandsons and granddaughters. The explanations suggested by relevant theoretical perspectives – the saliency of different roles, the similarity of life experiences between generations, and evaluations of adult role transitions – only partially account for the patterns of these associations. Future research should take into consideration the mediating role of parents, the geographic proximity, social opportunities and constraints related to grandchildren's adult roles, and grandparents' assistance for grandchildren.

Keywords

adult grandchildren; grandparents; closeness; contact; transition to adulthood

Increasing longevity has created the opportunity for individuals to spend more years in family roles, such as the roles of adult grandchild and grandparent with adult grandchildren (Silverstein & Marengo, 2001). The extended duration of these roles raises new questions concerning the continuity and change of intergenerational ties over time. As family members grow older and experience different life course events, their relationships with one another may change. The transition of grandchildren to young adulthood, for example, is likely to alter the dynamics of their relations to grandparents (Hodgson, 1998). Adult grandchildren may experience changes in residence, education, employment, marital and parental status. Adulthood may also weaken relationships between grandchildren and grandparents since the adult roles of worker, spouse, or parent have more explicit expectations and responsibilities than the grandchild role. On the other hand, the similarity of life experiences related to adult roles can strengthen grandchildren's ties to grandparents. Adult roles are likely to provide grandchildren with a greater understanding of their grandparents' lives.

Studies on whether and how grandchildren's adult roles are associated with ties to grandparents are scarce and their findings are inconsistent (Crosnoe & Elder, 2002; Geurts, Poortman, van Tilburg, & Dykstra, 2009; Mills, 1999). It is essential, however, to investigate this issue because the quality of this relationship has implications for the lives of both generations. A strong grandparent-grandchild bond provides individuals with a sense of

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family continuity and stability (Kemp, 2007), whereas weakening ties to grandchildren can adversely influence grandparents' well-being (Kivnick, 1985; Forsyth, 1994). Grandparents and adult grandchildren are potential sources of mutual assistance, featuring emotional, instrumental, and financial support (Ashton, 1996; Kemp, 2005). Adult grandchildren can even become primary caregivers or at least, co-caregivers for grandparents when their health deteriorates (Dellman-Jenkins, Blankemeyer, & Pinkard, 2000; Fruhauf, Jarrott, & Allen 2006). Grandchildren's assistance to their aging grandparents is becoming even more important today because population aging is depleting national resources allocated to health care and other types of services for the elderly (Putney & Bengtson, 2003). With such change in mind, grandchildren's adult role transitions have implications for exchanges of support with grandparents and in particular for whether grandchildren are available to their grandparents in times of need.

The present study draws on interviews with grandchildren ($N = 1,170$) at Wave 2 (1992 - 94; ages 10 - 26) and Wave 3 (2001 - 03; ages 18 - 34) of the National Survey of Families and Households (NSFH). This study examines how changes in grandchildren's residential independence, enrollment in higher education, full-time employment, marital status, and parenthood status are related to changes in their perceptions of two dimensions of intergenerational solidarity with grandparents – contact and closeness. The actual or perceived contact and closeness of the generations may indicate potential help and support exchanges (Parrot & Bengtson, 1999). This paper extends previous longitudinal studies in this area (Mills, 1999; Crosnoe & Elder, 2002) by examining grandchildren's relationships with all living grandparents and thereby, by highlighting the important lineage and gender processes involved in intergenerational bonds. In addition, this study assesses whether the association between grandchildren's adult role transitions and changes in their ties to grandparents varies for grandsons and granddaughters. This gender issue has been neglected in prior research.

Theoretical Background

A life course perspective suggests that grandchildren's adult role transitions (i.e., role entries and exits) make a difference in relationships with grandparents. In spite of the bounded-in-time nature of transitions, their consequences may be long-term (Elder, Johnson, & Crosnoe, 2003). Role transitions require learning and adjustments that can lead to new behavioral patterns (Riley & Waring, 1976). However, *linked lives* – one of the key principles of the life course framework – implies that the consequences of role transitions can extend beyond a specific individual by affecting others in the family (Elder, 1985). Linkages between grandparents and grandchildren, for example, are created through interactions, sentiments, and behaviors that bond family members together and that are the basis of intergenerational solidarity (Bengtson & Roberts, 1991). In addition to the dimensions of contact and closeness examined in the present study, a multidimensional construct of intergenerational solidarity includes four other interrelated components: agreement on values, attitudes, and beliefs; instrumental support and exchanges of resources; commitment to familial roles and obligations; and the opportunity structure for family interactions.

This study is also guided by a role framework (Rosow, 1985) and the intergenerational similarity argument (Bengtson & Black, 1973) coupled with the family stress model (McCubbin & Patterson, 1983) that help specify the direction of change for grandchildren's ties to grandparents when grandchildren experience adult role transitions. These theoretical perspectives offer two competing approaches to this issue. The role framework suggests that when grandchildren acquire adult roles, their relationships with grandparents deteriorate (Rosow, 1985). Adult roles have well-established behavioral expectations and guidelines attached to them. The grandchild role which is a more ambiguously defined or tenuous role

becomes less important to grandchildren when they experience the adult roles of worker, spouse, or parent. On the other hand, grandchildren who exit adult roles (e.g., leave employment, marriage or school) or who fail to acquire adult roles (e.g., reside with parents, are not employed, or remain single or childless) may be more involved in relationships with grandparents.

In contrast to the role framework, the intergenerational similarity argument and the family stress model imply that grandchildren's transitions into adult roles strengthen their relationships with grandparents. According to the intergenerational similarity hypothesis, life experiences related to adult roles help grandchildren better understand and identify with their grandparents (Bengtson & Black, 1973). Conversely, grandchildren who fail to acquire an adult role may have less in common with their grandparents. The family stress model complements the intergenerational similarity hypothesis by drawing attention to how positive vs. negative evaluations of grandchildren's adult role transitions by family members can determine the direction of changes in family ties (McCubbin & Patterson, 1983). In spite of being stressful, grandchildren's entries into adult roles can be viewed as positive events that lead to improved relationships with grandparents. Alternatively, certain exits from adult roles (e.g., a divorce and job lay-off) or failures to acquire adult roles can be perceived negatively and have adverse consequences for these relationships.

Generational variations in the experiences related to adult roles may not always line up with family members' evaluations of them. Grandchildren can acquire adult roles that were not experienced by their grandparents (e.g., entry into college or the full-time employment of women). Yet, positive perceptions of these roles by older generations could strengthen the grandparent-grandchild relationship. On the other hand, both generations might have gone through a divorce or job lay-off. Nevertheless, these events can be viewed negatively by family members and can be linked to a decline in their relationships.

Literature Review and Hypotheses

Research shows that the grandparent-grandchild relationship changes as grandchildren become older. Grandparents in Cherlin and Furstenberg's (1986) study perceived that grandchildren began disengaging from them already in adolescence and that there was little improvement in their relationships even when grandchildren started their own families. However, changes in the grandparent-grandchild relationship over time are not necessarily unidirectional. Silverstein and Marengo's (2001) research revealed, for example, that although grandparents reported having more frequent interactions with younger grandchildren, they were more likely to discuss personal concerns with older grandchildren. Adult grandchildren's reports in Hodgson's (1992) study indicate that increased geographic distance, grandparents' health problems or institutionalization, and family disagreements lead to less close relationships with grandparents, whereas grandchildren's parental status or personal crises in both generations (e.g., health issues or death of a spouse) can produce closer ties to grandparents.

Studies that directly examined the associations between grandchildren's adult roles and their relationships with grandparents provide mixed support for the theoretical perspectives discussed above. Drawing on data from the Longitudinal Study of Generations, Mills (1999) specifically tested the role framework. He focused on baby-boomer grandchildren (ages 19 - 55) and examined whether their adult role entries and exits were consequential for different dimensions of intergenerational solidarity with grandparents. Contrary to the role framework, Mills found that role entries were not necessarily related to a decline in the grandparent-grandchild relationship, nor were role losses always linked to an improvement

in this relationship. The direction of the effect of a particular role transition was contingent on a specific aspect of intergenerational solidarity and grandparent's gender.

Focusing on college-age grandchildren from the Iowa Youth and Families Project, Crosnoe and Elder (2002) found that both grandchildren and grandparents reported improvements in the quality of their relationships when the former enrolled in college, a finding that is consistent with the intergenerational similarity hypothesis and the family stress model. However, the transition of grandchildren into marriage, parenthood, and employment were not predictive of changes in the grandparent-grandchild relationship in Crosnoe and Elder's study. Geurts and colleagues (2009) examined cross-sectional data from young adults ages 18 to 35 in the Netherlands and similar to Crosnoe and Elder, found that grandchildren's employment status, partner, and parenthood status did not matter for the frequency of contact with grandparents. On the other hand, consistent with the role framework, young adults' residential independence from parents was negatively related to the frequency of visits as well as communication with grandparents (Geurts, et al.).

On the basis of theory and prior research, this study tests two competing hypotheses on the association between changes in grandchildren's adult roles and in their relations with grandparents. The role framework suggests that grandchildren's entry into adult roles is associated with decreases in contact and closeness with grandparents, whereas their adult role exits or failures to acquire these roles are related to improvements in this intergenerational relationship over time. Alternatively, the intergenerational similarity perspective and the family stress model suggest that grandchildren's entry into adult roles is associated with increases in contact and closeness with grandparents, whereas role exits or failures to acquire adult roles are related to decreases in this relationship over time.

Gender

Gendered dynamics in family relationships can make a difference in the association between grandchildren's adult roles and their ties to grandparents. Because women are more invested in maintaining close kinship ties than are men, grandchildren tend to have stronger ties to maternal grandparents and grandmothers than to paternal grandparents and grandfathers (e.g., Hodgson, 1992; Chan & Elder, 2000). However, little is known about the implications of lineage and grandparent's gender for the associations between changes in grandchildren's adult roles and changes in their relationships with grandparents. Unlike prior longitudinal research in the area (Mills, 1999; Crosnoe & Elder, 2002), this study takes into account lineage and grandparent's gender by analyzing grandchildren's ties to all available grandparents.

In contrast to previous research, this study also examines whether grandchild's gender matters for these associations. In general, research indicates that granddaughters feel closer to, have more frequent interactions with, and are more involved in giving and receiving help from grandparents (Ashton, 1996; Creasey & Koblewski, 1991). Further, the transition to adulthood is experienced differently by men and women due to socialization, cultural norms, and structural factors (Mahaffy, 2003). There are gender variations in time demands and constraints related to different adult roles. For instance, research on life course transitions and time use suggests that transitions to partnership and parenthood lead to considerable increases in time on routine housework for women and to only small increases for men (Baxter, Hewitt, & Haynes, 2008; Gauthier & Furstenberg, 2002). However, after the transition to parenthood, time in paid employment decreases for women but increases for men (Gauthier & Furstenberg). Accordingly, the association between changes in grandchildren's family roles (i.e., marriage and parenthood) and changes in the grandparent-grandchild relationship is likely to be stronger for granddaughters than for grandsons, whereas the association between changes in grandchildren's non-family roles (i.e., separate

residence, enrollment in school, and full-time employment) and changes in the grandparent-grandchild relationship is likely to be stronger for grandsons than for granddaughters.

Additional Factors

Measures of grandchildren's contact and relationship quality with their parents were included as control variables because research has indicated that parent-child ties make a difference in adult grandchildren's relations with grandparents (e.g., Brown, 2003; Monserud, 2008). This study did not consider parents' relations with the grandparent generation because these measures are available in the NSFH only when grandchildren's biological parents are married to each other (i.e., for 56% of the study sample). This study also controlled for grandchild characteristics: age, race, and level of education. Younger adult grandchildren tend to live closer to, and to have more frequent interactions with, grandparents (Hodgson, 1992). Compared to grandchildren of other racial/ethnic backgrounds, African Americans have closer relationships with their grandparents and are more similar to them in their opinions (Lawton, Silverstein, & Bengtson, 1994). Grandchildren with higher levels of education may have more resources (e.g., money to travel), which could facilitate more frequent interactions with grandparents. Finally, this study controls for whether grandchildren's biological parents were married to each other at Wave 3 of the NSFH because parental divorce is known to have adverse implications for grandchildren's relationships with paternal grandparents (Cherlin & Furstenberg, 1986). Further, married biological parents can have more opportunities to act as intermediaries between their offspring and the grandparent generation.

Method

Sample

This study predominantly draws on focal children's interviews from Wave 2 (1992 - 94) and Wave 3 (2001 - 03) of the NSFH (Sweet & Bumpass, 2002). These focal children were selected at Wave 1 of the NSFH, 1987 - 88. The data for the main respondents at Wave 1 were collected from a stratified multistage area probability U.S. sample of adults with an oversampling of racial and ethnic minorities, single parents, stepfamilies, cohabiting individuals, and recently married couples. The Wave 1 main respondents ($N = 13,017$) who had any biological, adopted, step (including partner's), or foster children under the age of 18 residing in the household reported about one of these children (i.e., the focal child; $N = 3,808$).

Wave 2 included telephone interviews with focal children from Wave 1. Of the Wave 1 original focal children, 2,505 children (66%) participated at Wave 2. These children fell within one of two age groups: 10 - 17 ($N = 1,415$) and 18 - 23 ($N = 1,090$). At Wave 3, interviews were attempted with Wave 1 original focal children who were age 18 and older at that time, regardless of whether or not they participated at Wave 2. These young adults were ages 18 - 34 at Wave 3 ($N = 1,952$). At both waves, interviews with focal children included questions on their relationships with biological and step-grandparents. This study examines grandchildren's relationships only with their biological grandparents. Because information was not available on their past relationships with grandparents from Wave 2, the 429 additional focal children interviewed at Wave 3 were not included in the present analyses. The current study focuses only on those focal children who participated at both Waves 2 and 3 and who had at least one living biological grandparent at Wave 3 ($N = 1,170$). Compared to the other focal children at Waves 2 and 3, the focal children in the final sample were more likely to be White, female, to have biological parents who were married to each other, and to report closer relationships with paternal grandfathers, but not other grandparents. This study refers to focal children as grandchildren.

Measures

All measures were taken from Waves 2 and 3 of the NSFH, with the exception of race/ethnicity that came from Wave 1.

Dependent Variables

Changes in contact with grandparents: Two variables measuring changes in grandchildren's contact with maternal and paternal grandparents, as a couple, were created by subtracting grandchildren's Wave 2 responses from their Wave 3 responses. The wording of, and the number of response categories for, the contact questions varied for different groups of grandchildren necessitating some recoding before these change score variables were created.

Older grandchildren at Wave 2 and all grandchildren at Wave 3 responded to only one contact question that incorporated their visits as well as communication by phone, letter, or e-mail during previous year with their grandparents of a given lineage. In contrast, younger grandchildren at Wave 2 were asked two separate questions about visits and about communication with their grandparents of a given lineage. Responses to these two questions for younger grandchildren at Wave 2 were averaged to create a single measure of contact with grandparents of a given lineage. Response categories for the contact questions ranged from 1 = *not at all* to 6 = *more than once a week* at Wave 2 for younger grandchildren and at Wave 3 for all grandchildren, but they ranged from 1 = *not at all* to 5 = *more than once a week* at Wave 2 for older grandchildren. The response categories for younger grandchildren at Wave 2 and for all grandchildren at Wave 3 were recoded in order to range from 1 = *not at all* to 5 = *more than once a week*, by collapsing categories 2 = *about once a year* and 3 = *several times a year* into 2 = *less than once a month*.

Changes in closeness to grandparents: Four variables measuring changes in closeness to each grandparent were created by subtracting grandchildren's Wave 2 responses from their Wave 3 responses. At both waves, grandchildren ranked their closeness to each available grandparent on a scale from 0 = *not at all close* to 10 = *extremely close*. Because grandchildren reported on their relationships with none to four grandparents, depending on the number who were still alive, closeness to each grandparent was considered in turn.

Independent Variables—Several independent variables captured changes in living arrangements, enrollment in higher education, employment, marital and parenthood statuses experienced by the grandchild between Waves 2 and 3. These variables were constructed by comparing grandchildren's responses to relevant questions at the time of the two interviews. Because younger focal children at Wave 2 were not asked questions about their marital status, parenthood status, and employment, measures of changes in these adult roles for this group of grandchildren were based on relevant history questions at Wave 3. Due to sample size limitations, some transitions between waves were not assessed separately in the present analyses. As discussed below, these transitions were included into other relevant categories that had larger sample sizes. Excluding these cases from the analyses did not change the results.

Changes in residential independence: This was measured by three dummy variables: separate residence at both waves, left parental home between waves, and *lived with parents at both waves* (reference category). The latter group also included grandchildren who started living with parents between waves ($n = 12$).

Changes in enrollment in higher education: This was measured by three dummy variables: enrolled in school between waves, not enrolled in school at both waves, and *left*

school between waves (reference category). The category 'enrolled in school between waves' also included 30 grandchildren who were enrolled in school at both waves. Enrollment in school implies enrollment in any kind of educational institution beyond high school (i.e., a vocational, technical, or trade school; a two-year, junior, or community college; four-year college or university; professional or graduate school; and a business college or secretarial/nursing school).

Changes in full-time employment: This was measured by four dummy variables: worked full-time at both waves, started working full-time between waves, worked less than full-time at Wave 3, and *not employed at both waves* (reference category). Full-time is defined as 30 hours or more per week. The category 'worked less than full-time at Wave 3' includes grandchildren who worked part-time at both waves ($n = 5$) or who experienced certain transitions between waves, such as from not being employed to part-time employment ($n = 112$), from part-time employment to not being employed ($n = 10$), from full-time employment to part-time employment ($n = 15$), and from full-time employment to not being employed ($n = 30$).

Changes in marital status: This was measured by four dummy variables: got married between waves, got divorced between waves, single at both waves, and *married at both waves* (reference category). Grandchildren who were not married at Wave 2, got married, and then got divorced between waves ($n = 45$) were combined with those who were married at Wave 2 and got divorced between waves.

Changes in parenthood status: This was measured by three dummy variables: parent at both waves, became a parent between waves, and *childless at both waves* (reference category).

Control Variables—*Mother-child contact* and *father-child contact* were created by averaging grandchildren's reports at Wave 3 on two questions regarding two types of contact with each parent over the last 3 months – visits and communication (1 = *not at all*, 5 = *more than once a week*). *Mother-child relationship* and *father-child relationship* captured grandchild's perceptions of their relationships with each parent at Wave 3 on a scale from 0 = *really bad* to 10 = *absolutely perfect*.

Granddaughter measured whether the grandchild was a female (0 = *no*, 1 = *yes*). *Grandchild's age* was taken from Wave 3. Because neither grandchildren nor their parents were asked about their race/ethnicity at Waves 2 and 3, race/ethnicity reported by parents at Wave 1 was used as a proxy measure of grandchild's race. It was not feasible to distinguish among racial/ethnic backgrounds of non-Whites in the study. The sample was over 87% White, with the remaining 12% split among a number of groups leaving no sizable sample in any one minority group, particularly because models for changes in closeness to grandparents were conducted for each living grandparent. Therefore, *White* was a dichotomous variable (0 = *no*, 1 = *yes*). *Grandchild's education* at Wave 3 was measured in years, ranging from 6 = *6th grade* to 20 = *doctorate*.

This study also controlled for whether biological parents of grandchildren were married to each other at Wave 3. Three dummy variables were created on the basis of parents' reports at Wave 3: parents married to each other, parents not married to each other (reference category), and *missing parental marital status*. Missing values for parents' marital status were not imputed because about 15% of the study grandchildren's parents did not participate at Wave 3. Non-participation may be an indicator of marital problems. For example, it might have been more difficult to locate those respondents who got divorced and moved away between waves.

Except for parents' marital status, missing values on all other independent and control variables were handled using the Stata command *ice* for multiple imputation (Accock, 2005). Individual variables had between 0% to 6% missing values. Variables requiring the most imputed values were measures of grandchildren's contact and relationship quality with their fathers. Mean substitution and listwise deletion techniques resulted in similar findings as those presented in this paper.

Analysis

Zero-order correlations (not shown) confirmed that except for the correlations between changes in the same adult role, the rest of bivariate correlations among the independent and control variables considered in the same regression model did not exceed .60. To examine the associations between grandchildren's adult roles and their relationships with grandparents, the change score method was used. Because change score models control for unobserved heterogeneity and produce estimates unbiased by measurement error in the dependent variable, they are more appropriate than the lagged dependent variable technique when using two waves of panel data to investigate the effects of transitions on outcomes (Johnson, 2005). Models predicting changes in grandchildren's contact with grandparents of a certain lineage as a couple were estimated using ordinal logistic regressions. Models for changes in grandchildren's closeness to each living grandparent were conducted employing ordinary least squares regressions. To assess whether the associations between changes in grandchildren's adult roles and grandparent-grandchild ties varied by grandchild's gender, interaction terms between changes in adult roles and grandchild's gender were used in the regression models (only statistically significant results are presented in Tables 3 and 4). The analyses used weights constructed by NSFH researchers to adjust for the unequal probabilities of selection into the survey across different demographic subgroups and family structures.

Sample Attrition—The two-step Heckman procedure was used in the present analyses to control for the effect of sample attrition between Waves 2 and 3 (Winship & Mare, 1992). In the first step of this procedure, the residuals of probit regression model were used to construct a selection bias control factor called Lambda. The residuals in this model provided information on the effects of grandchildren's unmeasured characteristics on the attrition. Lambda, as a summarizing measure, captured the effects of all these unmeasured characteristics. The dependent variable in the probit model was a dummy variable indicating whether or not the grandchild was a respondent at Wave 3. Independent variables were the characteristics of grandchildren available at Wave 2. In the second step of the Heckman procedure, Lambda was entered as a correction factor in each regression model to control for sample attrition. Thereby, the regression analyses produced unbiased coefficients for predictors of interest in the models.

Results

Descriptive Statistics

Descriptive statistics are presented in Table 1. There were slightly more granddaughters (53.3%) in the study sample than grandsons. The mean age of grandchildren at Wave 3 of the NSFH was 26. The majority of grandchildren were White (87.6%). There was a large change over 7 - 10 years between Waves 2 and 3 in contact and closeness between grandchildren and grandparents (Table 2). Grandchildren's reports indicated that their relationships with grandparents were more likely to deteriorate than to improve between waves. Contact with grandparents was more likely than closeness to remain the same between waves. However, closeness with grandparents was more likely than contact to improve between waves.

Regression Results

Changes in Contact with Grandparents—Changes in contact with maternal and paternal grandparents are presented in Table 3. Grandchildren who left the parental home between waves reported decreased contact with their maternal grandparents over time, when compared to those who continued living with parents. Unlike those who were married at both waves, grandchildren who got married between waves or who were single at both waves were more likely to report decreased contact with maternal grandparents. Grandsons who divorced between the two data waves decreased their contact with maternal grandparents. This was not the case for granddaughters. Changes in grandchildren's adult roles were not predictive of contact with paternal grandparents.

Changes in Closeness to Grandparents—Changes in closeness to maternal and paternal grandparents are presented in Table 4. Tests of interaction terms showed that not being enrolled in higher education at both waves was associated with increased closeness to maternal grandmothers for grandsons, but not for granddaughters. Compared to the unemployed at both waves, grandchildren, males and females, who worked full-time across both waves reported decreased closeness to their grandfathers over time, regardless of lineage. Among granddaughters, interaction terms also indicated that becoming employed between waves was related to increased closeness to paternal grandmothers.

Unlike their continuously married counterparts across the two data waves, grandchildren who got married between waves perceived increases in closeness to paternal grandfathers over time. Interaction terms showed that getting divorced between waves was related to greater closeness to maternal grandmothers among granddaughters. Also, compared to those who were married at both waves, grandchildren who got divorced between waves perceived more closeness to maternal grandfathers over time. Unlike continuously married grandchildren, those who were single at both waves experienced greater closeness to grandfathers over time, regardless of lineage. Tests of interaction terms indicated that being a parent at both waves was associated with increases in closeness to both paternal grandparents for grandsons, whereas becoming a parent between waves was related among granddaughters to increased closeness to paternal grandmothers.

Discussion

A young person's status transitions into adulthood have potential consequences for changing their relation to all linked lives, though little is known about the nature of such change. This longitudinal study focuses on stable and changing aspects of relationships between grandchildren and their grandparents. Drawing upon data from two waves of the National Survey of Families and Households, the analysis examines the implications of grandchildren's residential independence, college attendance, employment, marriage, and parenthood as potential change-producing transitions, as expressed in perceived contact with and closeness to grandparents, maternal and paternal. Findings indicate that the nature of the adult role in question, a specific dimension of intergenerational solidarity (i.e., contact vs. closeness), lineage, and gender can make a difference in grandchildren's ties to grandparents.

Consistent with previous research, this study found mixed support for the role framework and for the intergenerational similarity hypothesis coupled with the family stress model. Nevertheless, several patterns emerged in this study that suggest that in addition to the explanations proposed by these theoretical perspectives, several other factors may help illuminate variations in the associations between grandchildren's adult roles and the grandparent-grandchild relationship. In other words, the saliency of an adult role, the similarity in life experiences, and positive vs. negative evaluations of adult role transitions

are only partially accountable for these associations. As discussed below, future research as well as theoretical debates need to take into consideration the mediating role of parents, the geographic proximity, additional resources and opportunities provided by grandchildren's adult roles for involvement with grandparents, and grandparents' emotional, instrumental, and financial support to grandchildren.

The implications of grandchildren's residential independence for their ties to grandparents have not been examined in previous longitudinal studies in the area (Mills, 1999; Crosnoe & Elder, 2002). Prior cross-sectional research of Geurts and colleagues (2009) found that adult grandchildren who lived independently had less frequent contact with their grandparents. The present study indicates that grandchildren's transition to residential independence is related to decreased contact with maternal grandparents but not with paternal grandparents. The role framework suggests that this negative association can be accounted for by new concerns and responsibilities related to establishing a household of one's own.

Lineage differences in the associations between the transition to independent living and contact may be explained by a general matrilineal bias in the grandparent-grandchild relationship. Similar to their younger counterparts, adult grandchildren have greater involvement with maternal grandparents, because women are major kin-keepers in the family (Hodgson, 1992). At the same time, co-residence makes it easier for parents to facilitate grandchildren's interactions with their grandparents, regardless of lineage. After leaving the parental home, grandchildren's reports, however, may reflect their greater guilt about decreased contact with maternal grandparents. Prior research suggests, for instance, that adult grandchildren may be less satisfied with the frequency of contact with grandparents while in college than while residing with parents (Hartshorne & Manaster, 1982) and they may feel guilty when they do not fulfill their perceived obligations towards grandparents (Kemp, 2005).

Note that this study did not control for geographic proximity because the information is not provided by the NSFH. Future studies would benefit by taking into account changes in distance between grandchildren and grandparents over time. Grandchildren tend to live closer to maternal grandparents than to paternal ones (Drew & Smith, 1999). After the transition to independent residence, adult grandchildren may have to adjust their expectations of frequent contact with maternal grandparents to diminished contact with less geographic proximity. Regardless of the underlying reason, these findings suggest that grandchildren who leave the parental home may be less available to their maternal grandparents in times of need.

Unlike research by Crosnoe and Elder (2002), this study finds very limited support for the idea that grandchildren's enrollment in higher education matters for changes in their relationships with grandparents. In accord with the role framework, grandsons who were not enrolled in higher education at both waves reported increases in closeness with their maternal grandmothers. The exact mechanisms underlying this positive association is not clear. However, adult grandsons who had not attended college might have lower geographic mobility and thereby, could have more opportunities for strengthening their relationships with maternal grandmothers.

Full-time employment seems to divert grandchildren's attention from their relationships with grandparents. In support of the role framework, grandchildren's continuous full-time employment had adverse implications for their closeness to grandfathers, regardless of lineage. Also, grandchildren's transition to full-time employment between waves is related to decreased closeness to paternal grandfathers. On the other hand, granddaughters who started working full-time between waves reported greater closeness to their paternal

grandmothers which is consistent with the intergenerational similarity perspective and the family stress model.

Findings indicate that unlike other grandchildren, continuously married grandchildren experienced increased contact with their maternal grandparents over time. These results are consistent with the intergenerational similarity hypothesis and the family stress model. Being married for several years seems to provide additional opportunities for grandchildren's involvement with their maternal grandparents. It is also possible that continuously married grandchildren may have a stronger commitment to familial roles and obligations, which can in turn lead to more frequent interactions with grandparents. This study, however, was not able to assess normative solidarity between grandchildren and grandparents.

In contrast to the findings for contact with grandparents, not being continuously married across the two waves seems to have positive implications for grandchildren's closeness to grandparents. In line with the intergenerational similarity hypothesis and the family stress model, grandchildren's transition to marriage seems to create extra linkages with paternal grandfathers. Because women are more involved in family relationships, grandchildren tend to feel less close to and to have less frequent contact with paternal grandfathers than with maternal grandparents and paternal grandmothers (Creasey & Koblewski, 1991; Silverstein & Marengo, 2001). Grandchildren's marriage, however, can boost their relationships with paternal grandfathers through additional opportunities for involvement such as family gatherings.

Also, supporting the role framework, divorce between waves was associated with increased closeness to maternal grandmothers for granddaughters and to maternal grandfathers for grandchildren of both genders. Further, grandchildren who were single at both waves experienced increases in closeness to their grandfathers, regardless of lineage. It appears that grandchildren who are not married have more time and energy to devote to their relationships with grandparents than do their counterparts who have been married for a few years. In addition, unpartnered grandchildren can look for closeness in their relationships with grandparents when they cannot find it in intimate relationships. Another possible explanation is that grandparents can provide different types of assistance – emotional support, help with financial expenses or child care – to their divorced and single grandchildren (Doka & Mertz, 1988). Also, grandparents and adult grandchildren can serve as confidants to one another (Kemp, 2005; Silverstein & Marengo, 2001). Moreover, Kemp's (2005) study suggests that young adults can more freely discuss their personal issues with their grandparents than with their parents. The grandparent-grandchild relationship is characterized by much lower levels of conflict and tension than the parent-child relationship because grandparents are guided by the norm of non-interference. Compared to parents, they are less likely to criticize and pass judgment on grandchildren.

In accord with the intergenerational similarity hypothesis and the family stress model, parenthood at both waves was predictive of improvements in closeness to both paternal grandparents for grandsons. Further, granddaughters who became parents between waves experienced increases in closeness to paternal grandmothers. Parenthood seems to create additional opportunities for grandchildren to strengthen their ties to paternal grandparents. Due to the matrilineal bias, grandchildren tend to have better relationships with maternal grandparents (Chan & Elder, 2000). However, parenthood may encourage grandchildren to increase their involvement with paternal grandparents so that their children can get to know their grandparents on both sides of the family. The grandchild's transition to parenthood is a counter-transition for grandparents to great-grandparenthood which, according to great-grandparents' perceptions, reaffirms their family continuity (Doka & Mertz, 1988). The

transition to great-grandparenthood may encourage paternal grandparents to improve their relationships with grandchildren as well as to provide support to them in order to participate in the lives of their great-grandchildren. Another plausible reason for the special relationship that grandsons who are parents develop with paternal grandparents may relate to the paternal grandparents' aspiration that the family name would carry on.

The argument that family role transitions have a stronger effect on granddaughters' ties to their grandparents, whereas non-family role transitions have a stronger effect on grandsons' ties to their grandparents received some support. A divorce and birth of the first child between waves were predictive of improvements in closeness to grandparents only for granddaughters, while the non-student status at both waves was related to increases in closeness to grandparents only for grandsons. However, contrary to expectations, entry into full-time employment was salient for granddaughters' closeness to grandparents, whereas a divorce between waves and parenthood at both waves were important for grandsons' ties to grandparents.

Several limitations of this research should be considered when interpreting its findings. As mentioned above, this study did not control for geographic distance between grandchildren and their grandparents. Also, this study could not consider grandparents' characteristics, life course transitions (e.g., retirement, widowhood, increasingly poor health), and relationships with the middle generation because this information is available only for certain grandparents (56% of the study sample), depending on marital status of grandchildren's parents. Moreover, the grandparents' perspective is not represented in this research. Deeper understanding of variations in grandparent-grandchild ties related to grandchildren's adult roles could be developed by comparing reports from both generations.

Despite such limitations, this study provides evidence that grandchildren's adult role transitions are associated with changes in contact and closeness between grandchildren and grandparents. The analyses demonstrate that lineage and gender may help us better understand variations in these associations. In addition, the findings imply that there are times in the life course when grandchildren may be less available for grandparents when they need help. Yet, grandparents benefit from their interactions with grandchildren even when the latter seem too busy. The findings that grandchildren's divorce, singlehood, and parenthood are linked to improvements in closeness to grandparents suggest that during the transition to adulthood, grandchildren may also turn to their grandparents for support and assistance.

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Table 1

Descriptive Statistics

Variables	<i>M(SD)</i>	%	<i>Range</i>	<i>Unweighted N</i>
Dependent Variables:				
1. Change in contact with maternal grandparents	-.58(1.15)		-4 – 4	932
2. Change in contact with paternal grandparents	-.64(1.19)		-4 – 4	799
3. Change in closeness to maternal grandmother	-1.17(2.40)		-10 – 8	815
4. Change in closeness to maternal grandfather	-1.40(2.65)		-10 – 8	495
5. Change in closeness to paternal grandmother	-1.39(2.77)		-10 – 10	691
6. Change in closeness to paternal grandfather	-1.55(2.67)		-9 – 10	389
Independent Variables:				
7. Separate residence at both waves ^I		17.8	0 – 1	1,170
8. Left parental home between waves ^I		57.7	0 – 1	1,170
9. Lived with parents at both waves (reference category) ^I		24.8	0 – 1	1,170
10. Enrolled in school between waves ^I		26.5	0 – 1	1,170
11. Not enrolled in school at both waves ^I		57.7	0 – 1	1,170
12. Left school between waves (reference category) ^I		15.8	0 – 1	1,170
13. Worked full-time at both waves ^I		17.2	0 – 1	1,170
14. Started working full-time between waves ^I		48.2	0 – 1	1,170
15. Worked less than full-time at Wave 3 ^I		14.9	0 – 1	1,170
16. Not employed at both waves (reference category) ^I		19.7	0 – 1	1,170
17. Got married between waves ^I		27.3	0 – 1	1,170
18. Got divorced between waves ^I		4.2	0 – 1	1,170
19. Single at both waves ^I		62.1	0 – 1	1,170
20. Married at both waves (reference category) ^I		6.4	0 – 1	1,170
21. Parent at both waves ^I		6.1	0 – 1	1,170
22. Became a parent between waves ^I		25.5	0 – 1	1,170
23. Childless at both waves (reference category) ^I		69.5	0 – 1	1,170
Control variables:				
24. Mother-child contact at Wave 3	4.09(0.95)		1 – 5	1,170
25. Father-child contact at Wave 3	3.54(1.21)		1 – 5	1,170
26. Mother-child relationship at Wave 3	8.13(1.56)		0 – 10	1,170
27. Father-child relationship at Wave 3	7.01(2.44)		0 – 10	1,170
28. Granddaughter ^I		53.3	0 – 1	1,170
29. Grandchild's age	25.78(4.44)		18 – 34	1,170
30. White ^I		87.6	0 – 1	1,170

Variables	<i>M(SD)</i>	%	<i>Range</i>	<i>Unweighted N</i>
31. Grandchild's education (in years)	13.84(1.71)		6 – 20	1,170
32. Parents married to each other ^{<i>I</i>}		56.1	0 – 1	1,170
33. Parents not married to each other (reference category) ^{<i>I</i>}		33.8	0 – 1	1,170
34. Missing parental marital status ^{<i>I</i>}		10.1	0 – 1	1,170

Note: Weighted means, standard deviations, and percentages are shown.

^{*I*}Variables are coded as 0 = *no* and 1 = *yes*.

Table 2

Descriptive Statistics: Changes between Waves in Grandchildren's Ties to Grandparents

Variables	Deterioration	No Change	Improvement	Unweighted N
Dependent Variables:				
1. Change in contact with maternal grandparents	51.0	36.0	13.0	932
2. Change in contact with paternal grandparents	53.0	34.1	12.9	799
3. Change in closeness to maternal grandmother	55.7	25.1	19.3	815
4. Change in closeness to maternal grandfather	58.7	22.0	19.3	495
5. Change in closeness to paternal grandmother	63.9	13.8	22.3	691
6. Change in closeness to paternal grandfather	56.9	25.0	18.1	389

Note: Weighted percentages are shown.

Table 3

Ordinal Logistic Regression Analysis for Variables Predicting Change in Contact with Grandparents between Waves 2 and 3

Variables	Maternal grandparents		Paternal grandparents	
	<i>B</i>	(<i>SD</i>)	<i>B</i>	(<i>SD</i>)
Separate residence at both waves ¹	-.29	(.28)	-.20	(.30)
Left parental home between waves ¹	-.55**	(.19)	-.27	(.20)
Enrolled in school between waves ²	-.30	(.25)	.15	(.29)
Not enrolled in school at both waves ²	-.08	(.21)	-.01	(.24)
Worked full-time at both waves ³	-.05	(.26)	.34	(.28)
Started working full-time between waves ³	-.31	(.18)	-.08	(.19)
Worked less than full-time at Wave 3 ³	-.22	(.22)	-.21	(.23)
Got married between waves ⁴	-.77*	(.32)	.32	(.34)
Got divorced between waves ⁴	-1.61**	(.56)	.28	(.44)
Single at both waves ⁴	-.82*	(.34)	.23	(.37)
Parent at both waves ⁵	.57	(.33)	.48	(.37)
Became a parent between waves ⁵	.06	(.19)	-.03	(.21)
Mother-child contact	-.08	(.09)	.05	(.10)
Father-child contact	.12	(.08)	.14	(.09)
Mother-child relationship	-.03	(.05)	-.01	(.05)
Father-child relationship	-.04	(.03)	-.03	(.04)
Granddaughter	.25	(.30)	.19	(.33)
Grandchild's age	.02	(.03)	.03	(.04)
White	1.05	(1.26)	1.28	(1.43)
Grandchild's education	.07	(.04)	-.01	(.05)
Parents married to each other ⁶	-.11	(.15)	-.17	(.15)
Missing parental marital status ⁶	-.13	(.23)	-.18	(.27)
Got divorced between waves x granddaughter	1.19*	(.64)		
Lambda	2.43	(3.20)	2.34	(3.65)
Pseudo <i>R</i> ²	.08		.05	
χ^2	70.39***		37.10*	
<i>df</i>	24		23	
Unweighted <i>N</i>	932		799	

Notes: Reference categories

¹Lived with parents at both waves

²Left school between waves

³Not employed at both waves

⁴Married at both waves

⁵ Childless at both waves

⁶ Parents not married to each other.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 4
 Ordinary Least Squares Regression Analysis for Variables Predicting Change in Closeness to Grandparents between Waves 2 and 3

Variables	Maternal grandmother		Maternal grandfather		Paternal grandmother		Paternal grandfather	
	B(SD)	β	B(SD)	β	B(SD)	β	B(SD)	β
Separate residence at both waves ¹	-.47(.38)	-.08	1.04(.57)	.12	.13(.48)	.02	1.15(.65)	.14
Left parental home between waves ¹	-.02(.25)	-.01	.34(.36)	.06	.24(.31)	.04	.08(.39)	.01
Enrolled in school between waves ²	-.01(.33)	-.01	.12(.52)	.02	.80(.46)	.13	.49(.67)	.09
Not enrolled in school at both waves ²	.77(.33)	.16*	.49(.44)	.09	.47(.39)	.08	.95(.59)	.18
Worked full-time at both waves ³	-.07(.35)	-.01	-1.14(.52)	-.15*	-.69(.45)	-.09	-2.05(.60)	-.25***
Started working full-time between waves ³	.22(.24)	.05	-.02(.34)	-.01	-.59(.38)	-.11	-.90(.38)	-.17*
Worked less than full-time at Wave 3 ³	.12(.30)	.02	-.04(.41)	-.01	-.52(.37)	-.07	-.76(.44)	-.11
Got married between waves ⁴	-.15(.42)	-.03	1.05(.75)	.18	-.20(.54)	-.03	2.12(.75)	.34**
Got divorced between waves ⁴	-1.04(.70)	-.09	2.16(.97)	.14*	.16(.70)	.01	1.16(.98)	.08
Single at both waves ⁴	.16(.46)	.03	1.73(.80)	.31*	.20(.59)	.04	2.04(.81)	.36*
Parent at both waves ⁵	-.06(.45)	-.01	.34(.68)	.03	2.48(.82)	.21**	4.26(1.09)	.37***
Became a parent between waves ⁵	-.33(.25)	-.06	-.69(.38)	-.10	.21(.33)	.03	.28(.44)	.04
Mother-child contact	.11(.12)	.04	.17(.18)	.06	.10(.15)	.03	.33(.19)	.12
Father-child contact	-.05(.11)	-.03	-.06(.16)	-.03	-.02(.14)	-.01	-.36(.17)	-.16*
Mother-child relationship	.14(.06)	.09*	.08(.09)	.05	-.10(.08)	-.06	.18(.09)	.12*
Father-child relationship	.01(.05)	.02	.02(.06)	.02	.14(.06)	.12*	.18(.07)	.16*
Granddaughter	.42(.44)	.09	1.05(.62)	.20	.04(.56)	.01	-.62(.71)	-.12
Grandchild's age	.17(.05)	.30***	.14(.06)	.20*	.19(.06)	.29**	.18(.08)	.27*
White	-1.24(1.68)	-.17	-2.16(2.57)	-.25	.64(2.24)	.07	-1.14(3.14)	-.13
Grandchild's education	.10(.06)	.07	.11(.09)	.06	.16(.08)	.09*	-.11(.11)	-.06
Parents married to each other ⁶	-.52(.20)	-.11*	.08(.29)	.02	-.08(.25)	-.01	-.28(.32)	-.05
Missing parental marital status ⁶	-.17(.31)	-.02	1.04(.46)	.12*	-.46(.44)	-.04	-.74(.55)	-.08
Not enrolled in school at both waves x granddaughter	-.74(.34)	-.14*						

Variables	Maternal grandmother		Maternal grandfather		Paternal grandmother		Paternal grandfather	
	<i>B(SD)</i>	β	<i>B(SD)</i>	β	<i>B(SD)</i>	β	<i>B(SD)</i>	β
Started working full-time between waves x granddaughter					.87(.43)	.14*		
Got divorced between waves x granddaughter	1.64(.82)	.10*						
Parent at both waves x granddaughter					-2.47(.95)	-.17*	-3.22(1.23)	-.22***
Became a parent between waves x granddaughter					.94(.53)	.12*		
Lambda	-2.76(4.28)	-.16	6.59(6.61)	.32	1.92(5.72)	.09	-3.15(8.05)	-.15
<i>R</i> ²	.10***		.11***		.12***		.19***	
<i>Unweighted N</i>	815		495		691		389	

Notes: Reference categories

- 1 Lived with parents at both waves
- 2 Left school between waves
- 3 Not employed at both waves
- 4 Married at both waves
- 5 Childless at both waves
- 6 Parents not married to each other.

* $p < .05$.

** $p < .01$.

*** $p < .001$.