Communication Monographs
Vol. 73, No. 1, March 2006, pp. 87–107

Routledge
Taylor & Francis Group

Shared Family Identity, Age Salience, and Intergroup Contact: Investigation of the Grandparent–Grandchild Relationship

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This study investigated communicative and relational aspects of the grandparent–grandchild relationship that lead to perceptions of age salience and shared family identity with the grandparent. The perceptions represent manifestations of inter- and intragroup levels of categorization in dealing with the other family member. The association between these group-oriented categorizations and perceptions of intergenerational contact outside of the family was examined. Participants ($N = 369$) completed questionnaires assessing perceptions of experiences with multiple grandparents. Findings showed that general family identification of the grandchild, parental encouragement, and personal communication (social support and reciprocal self-disclosure) are positively associated with perceptions of shared family identity, whereas intergroup communication (under/overaccommodation) and perceptions of impaired health are associated with age salience. Results suggest that age salience may moderate the relationship between shared family identity and perceptions of older adults in some circumstances.

Keywords: Intergenerational Communication; Grandparent–Grandchild Relations; Family Identity; Contact Theory; Attitudes Towards Older Adults

Much recent research has examined younger and older adults' intergenerational communication (Williams & Nussbaum, 2001), enhancing our understanding of the

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ISSN 0363-7751 (print)/ISSN 1479-5787 (online)
DOI: 10.1080/03637750500534388

relationship between perceptions of age groups and behaviors in intergenerational contexts. This research has focused on communication *outside* of the family; typically between strangers. Recently, more work has examined the grandparent–grandchild relationship, including considering the effects of grandparent–grandchild communication on ageist attitudes (Harwood, Hewstone, Paolini, & Voci, 2005; Soliz & Harwood, 2003). Williams and Nussbaum (2001) state that, "to understand intergenerational communication, a much greater effort on the part of scholars needs to be directed towards the communication behavior found within the grandparent–grandchild relationship" (p. 183). The current research answers this call by investigating grandparent–grandchild communication from an intergroup perspective to further understand the link between communication in this family dyad, age identity, and perceptions of older adults.

Intergroup Theory and Family Relations

Social identity theory (SIT) and communication accommodation theory (CAT) are central to an intergroup approach to communication (Harwood & Giles, 2005). Both theories stipulate that individuals relate and communicate with one another in part based on group-level categorizations of social ingroups and outgroups (e.g., men/women, Hispanic/Asian; Tajfel & Turner, 1986). The communicative dimension of intergroup relations is explicated in CAT (Shepard, Giles, & LePoire, 2001). While CAT has been broadly applied in examining the relationship between various group stereotypes (particularly ethnic groups; Giles, Bourhis, & Taylor, 1977), it has recently been applied extensively in the area of intergenerational communication (e.g., Coupland, Coupland, Giles, & Henwood, 1988; Ryan, Giles, Bartolucci, & Henwood, 1986; Williams et al., 1997). This research has focused on the ways in which older and younger adults *overaccommodate* (i.e., alter communication in excess of what is needed), or *underaccommodate* (i.e., fail to adjust communication) to one another in interaction. These accommodations can often be seen to reflect intergroup boundaries; for instance, when overaccommodation occurs as a "baby talk" style to older adults who are stereotyped as incompetent (Hummert, Garstka, Ryan, & Bonnesen, 2004). Thus, examining interactions through an accommodative lens using CAT highlights the association between group identities and communication.

The majority of this work has examined communication between strangers, perhaps because this is where intergroup boundaries might be expected to be most salient. Intergroup boundaries, however, may be important even in "personal" relationships such as families. Families include both *inter*group and *intra*group relationships. The family is inherently a shared ingroup for all members, but family members also posses identities signifying intergroup boundaries within the family (Harwood, Soliz, & Lin, 2006). Such intergroup boundaries may be superseded when family identity (i.e., a common ingroup) is salient (Gaertner & Dovidio, 2000). However, while family can be considered as "generally the most salient ingroup category in the lives of individuals" (Lay et al., 1998, p. 434), attention must be paid to other potential group identifications that will emerge within family interaction.

Viewed through an intergroup lens, our family interactions may influence how we communicate with and perceive members of groups outside of the family. This possibility is grounded in intergroup contact theory.

Intergroup Contact Theory

Originally, intergroup contact theory hypothesized that specific experiences with outgroup members influence perceptions of the outgroup as a whole (Allport, 1954). Scholars have uncovered general support for this model (Pettigrew & Tropp, 2000), as well as demonstrating a variety of facilitating conditions important for this type of generalization to occur (e.g., high quality contact, equal status, institutional support: Amir, 1976). Pettigrew (1998) suggests that contact in long-term relationships can be particularly powerful in influencing general perceptions of the outgroup.

Recent theorizing has highlighted an additional facilitating condition for the generalization from individual contact to group attitudes—group salience. Hewstone and Brown (1986; Brown & Hewstone, 2005) suggest that such generalization requires that group memberships be foregrounded in intergroup interaction and that conversational partners are perceived as somewhat typical representatives of the group. The idea that group salience facilitates generalization has been empirically supported (e.g., Brown, Vivian, & Hewstone, 1999): When individuals are aware of an interlocutor's group membership, their attitudes about the interlocutor are more likely to influence their attitudes about the group as a whole. Ironically, group salience is often negatively related to quality of contact (Harwood et al., 2005; Islam & Hewstone, 1993). This research has rarely considered multiple levels of group categorization, and thus the influence of a common ingroup between conversation partners has not been examined. When considering whether family interaction can influence outgroup attitudes, the shared family identity of the participants must be considered alongside their differentiated intergroup identities. The next section focuses on grandparent–grandchild relationships, which can be usefully understood from an intergroup perspective.

The Grandparent–Grandchild Relationship

Due to the increase in the older population and increasing longevity, the grandparent–grandchild relationship is one that can last for decades—more younger children and adults have living grandparents today than in any time in history (Mares, 1995). Close relationships with grandparents have been shown to be influential factors in the development of beliefs and values of grandchildren (Brussoni & Boon, 1998). The grandparent relationship provides grandchildren with their first and most frequent contact with older adults (Ng, Liu, Weatherall, & Loong, 1997; Szinovacz, 1998). This contact offers the possibility of shared family identification but also a salient intergroup divide—age (Harwood & Lin, 2000; Nussbaum & Bettini, 1994). The grandparent displays physical features of old age and contact with grandparents can be characterized by age-relevant interactions

(e.g., dispensing wisdom, talking about historical events; Harwood, 2000; Harwood et al., 2006; Nussbaum & Bettini, 1994). Hence, the grandparent–grandchild relationship may be characterized as both *inter*group and *intra*group.

The salience of this intergroup boundary (age) varies in the grandparent–grandchild relationship as a function of many features (e.g., grandparent communication style, physical context; Anderson, Harwood, & Hummert, 2005). The same is true of family identity: Talk about family history may raise the salience of shared family identity with the grandparent; a grandparent's birthday may raise the salience of age. While it is possible for both age and family identity to be salient in interactions (e.g., a grandparent telling a story about the parent's childhood), we suspect that these two are negatively correlated. Research finds negative implications associated with age salience (e.g., perhaps through invoking age stereotypes: Harwood et al., 2005), whereas shared family identity has positive implications (Banker & Gaertner, 1998), suggesting that the two are negatively related. Various theoretical perspectives on categorization also suggest that operating simultaneously at different hierarchical levels of categorization is difficult or impossible (e.g., Oakes, Haslam, & Turner, 1994). A salient age categorization, for instance, may inherently undermine the prospects for a shared family-level categorization because it involves simultaneously categorizing the self as a family member and a young person, one of which connects the self to the older family member, and the other of which distances the self from that person. Understanding the association between these two is a first step in understanding their implications for ageist attitudes.

H1: Shared family identity with the grandparent and age salience are inversely related.

The second step in understanding implications of these constructs for ageist attitudes is to understand more about the grandparent–grandchild communication that may contribute to these attitudes. Communication accommodation theory and other related literatures were drawn on to derive the specific dimensions described below.

Communication accommodation. Perceptions of (in)appropriate accommodation in intergenerational communication is linked to personal or group-based orientation in the interaction. For example, painful self-disclosures (e.g., health issues, loneliness, bereavement) by older adults are perceived as underaccommodating behavior by younger adults (Bonnesen & Hummert, 2002; Coupland et al., 1988). Likewise, patronizing communication (i.e., talking down to the younger person) is perceived as an overaccommodative behavior (Harwood, 2000). In both cases, over- and underaccommodation are reflective of an age-based orientation in the interaction and will raise the salience of age as a relevant construct. On the other hand, perceptions of appropriate accommodation are reflective of a more person-centered approach (i.e., shared family identity), which downplays age-group distinctions.

Grandparent support. Supportive interaction is not only important to everyday coping, but also to the development and maintenance of close relationships (Burleson, 1990; Leatham & Duck, 1990). Burleson's (1990) contention that successful supportive

messages are those that are person-centered (e.g., nonevaluative, conveying involvement, attentive to emotions) is significant here. It suggests that person-centered communication is negatively associated with group salience. The relational focus of supportive communication suggests that it would be indicative of a shared family identity.

Self-disclosure. Appropriate self-disclosure is an important dimension in relational satisfaction (Altman & Taylor, 1987) and closeness (Berg & Archer, 1983). This suggests positive consequences for disclosure in terms of shared family identity. Reciprocal self-disclosure personalizes intergroup interactions and reduces intergroup favoritism (Ensari & Miller, 2002).

In addition to the explicitly communicative factors, three additional constructs appear likely to be associated with age salience or shared family identity in interesting ways.

Parental encouragement. Parents typically encourage grandchildren to communicate and develop relationships with their grandparents (Harwood et al., 2006) and the parent–child relationship influences the grandparent-grandchild relationship (Whitbeck, Hoyt, & Huck, 1993). From a contact theory perspective, such encouragement can be understood as a form of "institutional support," one of the facilitating conditions for outgroup generalization (Allport, 1954). Higher levels of support from within the family should be associated with a higher degree of shared family identity.

Grandchild family identification. We predict that shared family identity with a grandparent will only be possible when the grandchild has at least a minimal level of identification with the family unit as a whole. Hence, family identification will predict shared family identity with the grandparent.

Perceived health of grandparent. Age salience and older adult stereotypes can be activated by physical and health cues (Ryan et al., 1986). Since physical and cognitive impairments (e.g., hearing loss, limited mobility) are stereotypically associated with aging, perceived health of the grandparent will influence age salience.

The following hypotheses summarize the discussion above.

H2: Grandparent accommodation, social support, self-disclosure, parental encouragement, and grandchild family identification are positively related with shared family identity with the grandparent.

H3: Grandparent overaccommodation and underaccommodation and perceptions of health problems are positively related with age salience.

Contact with Grandparents and Perceptual Outcomes

The fundamental goal of contact theory has been to understand how interpersonal contact can translate into attitudes about groups. In the current context, we aim to understand how intergenerational contact in the family is associated with attitudes about aging. Ageist attitudes have negative impacts on intergenerational interaction (Ryan et al., 1986) as well as individuals' experiences of their own lifespan development (e.g., Levy, Slade, Kunkel, & Kasl, 2002). Hence, the final hypotheses,

derived from intergroup contact theory, concern the ways in which contact with grandparents influences grandchildren's attitudes about older adults and perceptions of their own aging (Giles, Fortman, Honeycutt, & Ota, 2002). As previously stated, to investigate how family communication may be associated with outgroup attitudes, shared family identity must be considered alongside age salience. We hypothesize that those who share family identity with their grandparents will have more positive attitudes about aging. A shared group identity should elicit positive evaluations of the grandparent, which have the potential of generalizing to other older people. However, invoking the earlier discussion of Hewstone and Brown's (1986) model of contact, the relationship between shared family identity and attitudes towards the outgroup should be facilitated by age salience. The grandchild must perceive the grandparents as somewhat representative of older adults for feelings about the grandparent to generalize to the whole outgroup. Previous work (e.g., Harwood et al., 2005) has demonstrated that age salience per se, though, has a negative effect on attitudes, largely because it activates negative stereotypes and anxiety (Harwood, Raman, & Hewstone, in press). Therefore, we make the following predictions.

H4: Age salience is negatively associated with perceptions of older adults and attitudes towards one's own aging

H5: Shared family identity with a grandparent is positively associated with perceptions of older adults and attitudes towards one's own aging; this association is stronger under conditions of high age salience.

Method

Young adults ($N = 369$) from introductory speech classes at a large Midwestern university received course credit for their participation (61.2% female, 38.5% male; 18–26 years old, $M = 19.74$, $SD = 1.31$). Most were European American (84%). The rest were Latino (3.8%), Asian American (3.3%), African American (2.7%), Native American (0.5%), and other/multiple ethnicities (5.4%).

Procedures and Materials

Participants completed three sets of questionnaires in 53 small group sessions ($n = 4 - 16$). The Grandparent Relationship Questionnaire instructed participants to "briefly describe (e.g., name, relationship to you, appearance) the grandparents you have had contact with during your life regardless of the nature or length of the relationship." Participants were instructed to *not* include grandparents of whom they had no recollection. Participants were instructed to *include* stepgrandparents *if* they perceived them as grandparents, and dead grandparents *if* they could recall the relationship. Subjects reported on 1–6 grandparents (one: 9%; two: 13.3%; three: 27.1%; four: 44.7%; five: 7.6%; six: 5.7%).

Participants then completed a Grandparent Questionnaire for each grandparent. In this questionnaire, participants assessed the dimensions of the grandparent–grandchild relationship and personal characteristics of the grandparent listed below. Reliability and validity of scales developed for this research (shared family identity,

grandchild family identification, parental encouragement) were established in pilot studies. Unless noted, all items were measured on 5-point scales. Reliabilities in the current study were assessed for each target grandparent, and are hence reported as ranges.

Grandparent social support. We used the social support subscale of the Quality of Relationships Inventory (Pierce, Sarason, & Sarason, 1991), a valid and reliable measure of available support in a relationship (Pierce, Sarason, Sarason, Solky-Butzel, & Nagle, 1997; e.g., "To what extent can you turn to this person for advice about problems?"; alpha = .91–.95).

Self-disclosure. This was assessed with items derived from Laurenceau, Barrett, and Pietromonaco (1998) in Harwood et al.'s (2005) investigation of the grandparent–grandchild relationship. The items assessed perceptions of reciprocal grandparent–grandchild self-disclosure. The scale was reliable (e.g., "How much do you express your feelings?"; alpha = .90–.97).

Communication accommodation. Items measuring accommodation, overaccommodation, and underaccommodation were derived from prior work on grandparent–grandchild communication (Lin & Harwood, 2003; Soliz & Harwood, 2003). Pilot work indicated that including accommodation in the current study resulted in substantial multicollinearity with measures of social support and self-disclosure.[1] Hence, it was dropped. Participants rated *grandparent overaccommodation* (e.g., "My grandparent negatively stereotypes me as a young person"; "Talks down to me."; alpha = .72–.83), and *underaccommodation* (e.g., "My grandparent complains about his/her health"; alpha = .82–.93).

Parental encouragement. Four items were developed to assess parental encouragement of grandparent contact (e.g. "My parent(s) remind me to email this grandparent"; alpha = .71–.87).

Shared family identity. Six items measuring shared family identity with the grandparent were developed in initial pilot studies (e.g., "I am proud to be in the same family as this grandparent"; "This grandparent is an important part of my family"; alpha = .90–.96).

Perceived grandparent health. The Instrumental Activities of Daily Living scale (IADL: Lawton & Brody, 1969) asks how often an older adult (in this case, a grandparent) needs assistance with daily living activities (e.g., using the telephone, getting to places beyond walking distance). Pilot work showed appropriateness of the measure for perceptions of grandparents. Items were reverse-coded so higher scores would indicate better perceived health (alpha = .94–.99).

Age salience. This was measured with four items from Harwood et al. (2005; e.g., "How much do you think about this grandparent's age when communicating with them"; alpha = .71–.89).

Quantity of contact. Quantity of contact with the grandparent was assessed on a 6-point scale ("almost daily", "weekly", "monthly", "every six months", "yearly", "less than yearly").

The General Attitudes Questionnaire measured grandchild family identification, attitudes towards older adults, and attitudes towards one's aging. Ordering of this questionnaire and the grandparent questionnaires was counterbalanced.

Grandchild family identification. Four items for measuring this were developed in pilot work (e.g., "I am committed to my family"; "I do *not* feel a sense of belonging to my family"; alpha = .86).

General attitudes towards older adults. Attitudes were measured using Knox, Gekoski, and Johnson's (1986) scale evaluating older adults on 7-point semantic differentials (e.g., wise–foolish). The items form a reliable composite score of positive attitudes towards older adults (alpha = .78).

Attitudes towards one's aging. This was assessed with a shortened nine-item version of the Attitudes Towards Aging scale (Braithwaite, Lynd-Stevenson, & Pigram, 1993; e.g., "Once you get to a certain age, life inevitably goes downhill"). Scores were recoded so higher scores represented more positive attitudes towards one's own aging (alpha = .80).

Results

Perceptions of Older Adults and Attitudes Towards Aging: Most Contact Analysis

Tests of contact theory often examine the most frequent source of outgroup contact. In line with this approach, the current analysis began with a consideration of the grandparent with whom the grandchild had the *most* contact (gauged using the *quantity of contact* item on the questionnaire). If a subject indicated more contact with a single grandparent, this grandparent was selected. If two or more grandparents had equal levels of contact, grandparents who were still living were selected. In cases involving two or more living grandparents who had equal levels of contact, grandparents were randomly selected. Most of these grandparents were living (82%; average age = 75.42 years, $SD = 7.60$). Many were maternal grandmothers (39.6%), followed by paternal grandmothers (25.2%), maternal grandfathers (15.7%), paternal grandfathers (15.2%), and step- or great grandparents (4.3%).

As predicted by H1, age salience was negatively related to shared family identity, $r(369) = -.20$, $p < .001$. The remaining hypotheses were examined using Structural Equation Modeling (SEM).[2] The hypothesized models we discuss outline theoretically derived relationships between constructs and the subsequent analysis assess the extent to which our data supports the model. However, due to the nature of the data (i.e., nonlongitudinal), claims of directional influence or causality are limited.

Model modifications were considered only if they fit with the theoretical foundation of the study, and nonsignificant paths were removed only if they did not significantly reduce model fit. Model fit was evaluated with the maximum likelihood chi-squared statistic, the nonnormed fit index (NNFI), comparative fit index (CFI), and root mean square error of approximation (RMSEA). Interpretation of the chi-squared statistic was done by examining the ratio of the statistic to degrees of freedom to account for the sensitivity of sample size (χ^2/df ratios < 3 are

acceptable: Kline, 1998). Model comparisons were done using the original chi-squared statistic with p-values of .01 to account for sample size.

Prior to the SEM analysis, items for grandchild family identification, parental encouragement, grandparent health, shared family identity, age salience, perceptions of older adults, and attitudes towards aging were parceled. A parcel is an "aggregate-level indicator comprised of the sum (or average) of two or more items, responses, or behaviors" (Little, Cunningham, Shahar, & Widaman, 2002, p. 152). Parcels are preferred over item-level data due to psychometric characteristics of items (e.g., lower reliability, greater likelihood of distributional violations; Little et al., 2002; MacCallum & Austin, 2000). For SEM, parcels are advantageous in that models using parcels require fewer parameters and are more parsimonious compared to item-level data. For our study, parcels were created by random assignment of all items and three parcels were created for each construct when possible (e.g., the six-item measure of shared family identity is parceled into three indicators containing two items each).

Preliminary SEM analysis of the measurement model indicated large correlated residuals between grandparent social support and self-disclosure, and between over- and underaccommodation. This suggested that the grandparent–grandchild communicative dimensions represent two distinct communicative constructs. Hence, social support and self-disclosure serve as indicators of *personal grandparent–grandchild communication* and over/underaccommodation were indicators of *intergroup grandparent–grandchild communication*. The results of the parceling, model modification, and hypotheses are summarized in Figure 1, which represents *anticipated* relationships among constructs. In terms of exogenous constructs (i.e., the latent constructs *not predicted* by other latent constructs), standard practice dictates that all relationships be tested regardless of the expected associations.

A measurement model was tested to verify the relationship between the indicators and latent constructs. As part of the measurement model, all relationships between latent constructs were free to vary. The measurement model showed close goodness of fit, $\chi^2(N = 369,\ 178) = 405.35,\ p < .001$; NNFI = .95; CFI = .96; RMSEA = .057. Indicators all had reasonably high loadings on their respective factors and intercorrelations among the indicators of the same factor were higher than correlations with indicators of other factors. Additionally, the estimated correlations among the factors were not extremely high. The results of the measurement model support the convergent and discriminant validity of the model (Kline, 1998; Rigdon, 1998). Modification indices suggested that further estimates would not significantly improve the fit of the model. Completely standardized loadings for the indicators in the final structural model are presented in Table 1 (most contact).[3]

Next, the structural component of the model (i.e., the measurement model with the addition of the hypothesized paths) was tested, including an orthogonalized interaction between shared family identity and age salience. To create the orthogonalized interaction construct, an interaction term was created from the three indicators of shared family identity and the two indicators of age salience resulting in six interaction terms. Each of these was regressed on the five indicators of shared

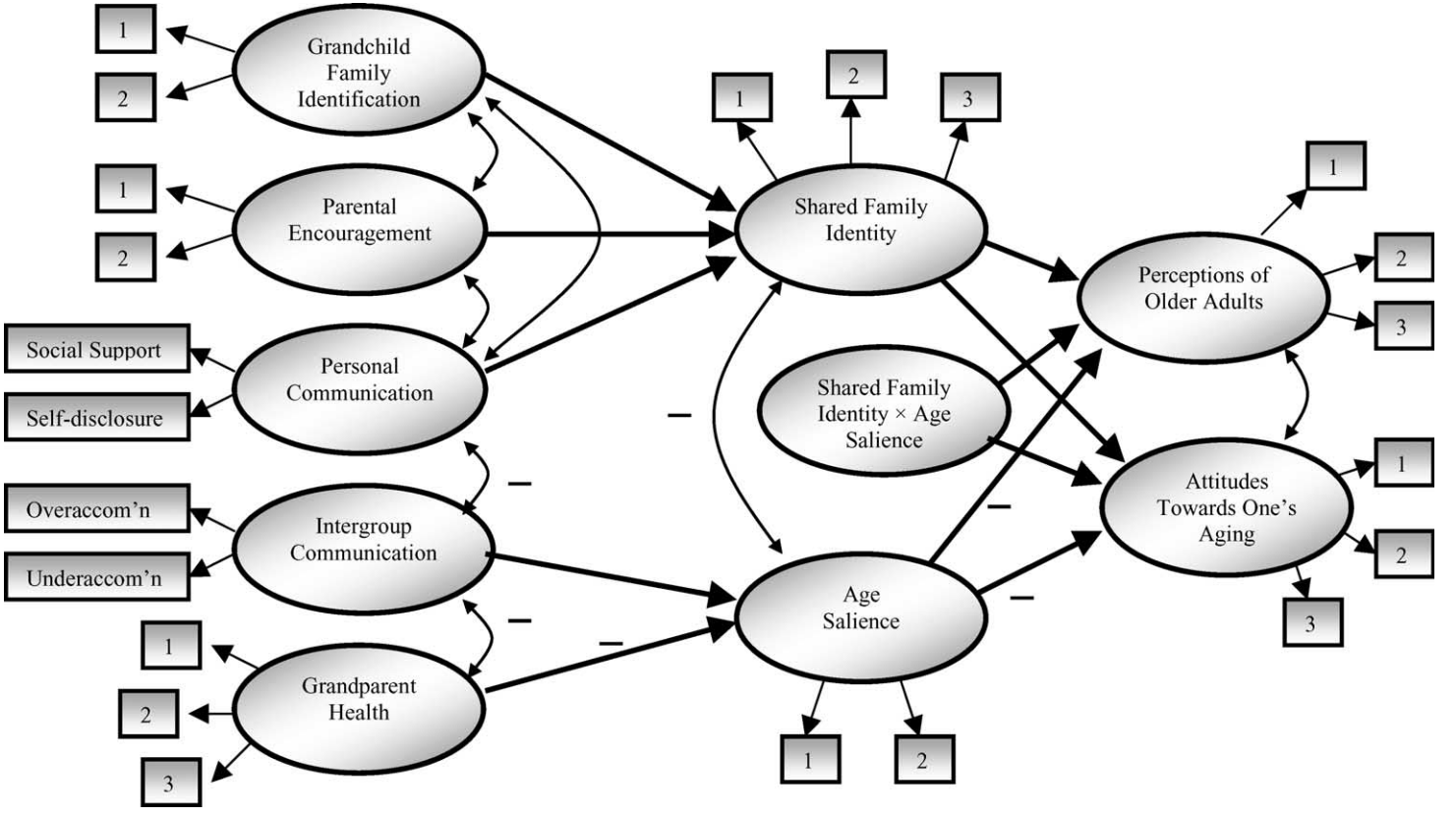

Figure 1 Hypothesized model for "most contact" and "all grandparents" analysis.

Table 1 Descriptive statistics and lambda (λ) loadings for indicators of latent constructs in the "most contact" and "all grandparents" models

	Most contact model		*All grandparents model*	
Latent construct/indicator	*Mean (SD)*	*Lambda (λ) loadings (residual)*	*Mean (SD)*	*Lambda (λ) loadings (residual)*
Grandchild family identification/P1	4.54 (0.79)	.85 (.27)	4.54 (0.79)	.85 (.28)
Grandchild family identification/P2	4.24 (0.82)	.86 (.26)	4.24 (0.82)	.86 (.26)
Parental encouragement/P1	4.37 (0.78)	.79 (.38)	4.23 (0.67)	.81 (.35)
Parental encouragement/P2	3.98 (0.99)	.74 (.46)	3.81 (0.88)	.75 (.43)
Personal communication/ Self-disclosure	2.93 (0.97)	.78 (.39)	2.67 (0.76)	.76 (.43)
Personal communication/ Social support	3.56 (1.09)	.89 (.21)	3.33 (0.85)	.87 (.24)
Grandparent health/P1	3.84 (1.48)	.86 (.26)	3.87 (0.97)	.89 (.21)
Grandparent health/P2	4.02 (1.33)	.95 (.10)	3.98 (0.92)	.97 (.05)
Grandparent health/P3	4.15 (1.33)	.96 (.09)	4.06 (0.91)	.96 (.08)
Intergroup communication/ Overaccommodation	1.72 (0.80)	.79 (.37)	1.77 (0.57)	.80 (.36)
Intergroup communication/ Underaccommodation	2.08 (0.90)	.79 (.38)	2.06 (0.68)	.79 (.38)
Shared family identity/P1	4.62 (0.67)	.85 (.27)	4.45 (0.61)	.89 (.20)
Shared family identity/P2	4.40 (0.83)	.81 (.34)	4.19 (0.75)	.84 (.29)
Shared family identity/P3	4.45 (0.84)	.91 (.17)	4.25 (0.77)	.92 (.14)
Age salience/P1	3.29 (1.07)	.80 (.36)	3.33 (0.84)	.83 (.32)
Age salience/P2	2.93 (0.94)	.80 (.36)	2.99 (0.71)	.83 (.30)
Attitudes towards aging/P1	3.00 (0.87)	.79 (.37)	3.00 (0.87)	.79 (.38)
Attitudes towards aging/P2	3.12 (0.87)	.65 (.58)	3.12 (0.87)	.64 (.58)
Attitudes towards aging/P3	3.01 (0.88)	.83 (.32)	3.01 (0.88)	.83 (.30)
Perceptions of older adults/P1	5.44 (0.94)	.69 (.53)	5.44 (0.94)	.68 (.54)
Perceptions of older adults/P2	5.26 (1.04)	.90 (.20)	5.26 (1.04)	.90 (.19)
Perceptions of older adults/P3	5.18 (1.03)	.65 (.57)	5.18 (1.03)	.65 (.58)

P1, P2, and P3 indicate parcels of the respective latent constructs.

family identity and age salience. The unstandardized residual for each regression serves as an indicator of the interaction construct which is independent of the main effects (i.e., it is uncorrelated with shared family identity and age salience). This procedure limits problems with unreliable beta weights that occur with other methods (Little, Hoffman, Bovaird, Finger, & Widaman, 2002). The hypothesized model with the interaction showed acceptable fit, $\chi^2(N = 369,\ 330) = 610.58$, $p < .001$; NNFI = .96; CFI = .97; RMSEA = .045. Nonsignificant paths were removed from the hypothesized model resulting in no significant difference in model fit, $\Delta\chi^2(N = 369,\ 5) = 5.26,\ p > .05$. Therefore, the more parsimonious model (with nonsignificant paths removed) was retained. Results for the final structural model are presented in Figure 2.

The first hypothesis predicted a negative association between shared family identity and age salience. This was supported by the negative zero-order correlation between these two variables in the current data (see above). The SEM analysis suggests that

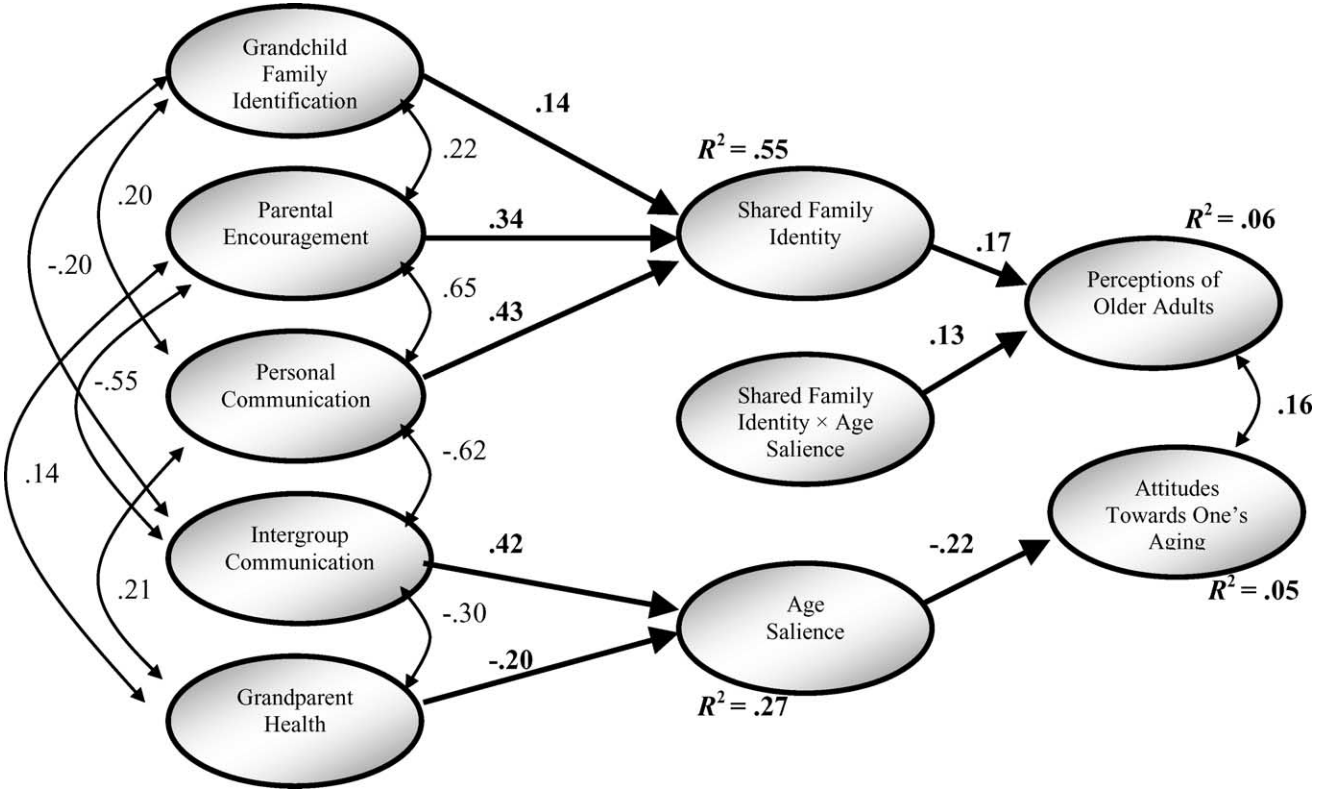

Figure 2 Final structural model for "most contact" analysis. $\chi^2(N = 369, 335) = 615.84$, $p < .001$; NNFI = .96; CFI = .97; RMSEA = .045. Parameters for indicators are provided in Table 1.

this negative zero-order correlation is a function of underlying associations with communicative and relational dimensions; the negative association disappears in the structural model when communicative and relational factors are included.

The second hypothesis predicted that grandchild family identification and parental encouragement would be associated with higher levels of shared family identity, and this is supported by the model. Likewise, personal communication, indicated by social support and self-disclosure, is positively related to shared family identity. Personal communication and parental encouragement are more strongly associated with shared family identity than grandchild family identification.

In support of the third hypothesis, intergroup communication (as indicated by the presence of overaccommodative and underaccommodative behaviors) and grandparent health are associated with perceptions of age salience in the model. Negative communication is more strongly associated with age salience than perceived health of the grandparent.

As predicted by H4, age salience is negatively related with perceptions of one's own aging, suggesting that it may *mediate* relations between the exogenous constructs (intergroup communication and perceptions of grandparent health), and the attitudinal outcome. Higher age salience is associated with more negative attitudes towards one's own aging. Age salience is not related to attitudes concerning older adults.

Finally, H5 concerned the association between contact with grandparent and attitudes about older adults and aging. Results show some support for H5 in that shared family identity is associated with perceptions of older adults (but not attitudes about one's own aging). Also, the data support the hypothesis that this relationship is moderated by levels of age salience. To decompose the interaction, a quartile split was performed on age salience, and correlations between shared family identity and perceptions of older adult were examined for each level of age salience (Aiken & West, 1991). As expected, the correlation between shared family identity and perceptions of older adults is significant among the highest quartile group on age salience, $r(83) = .35$, $p = .001$, but nonsignificant when salience is lower, $r(80) = .04$, $p = .70$, $r(98) = .12$, $p = .26$, $r(108) = .08$, $p = .43$, for the first, second, and third quartiles, respectively.

Perceptions of Older Adults and Attitudes Towards Aging: All Grandparents Analysis

We tested the same model (Figure 1) using experiences with *all* grandparents. Dimensions were calculated as average scores across all grandparent relationships. Approximately 72% of these grandparents were living (average age = 72.74 years, $SD = 7.55$: maternal grandmothers, 25.6%, paternal grandmothers, 24.2%, maternal grandfathers, 20.7%, and paternal grandfathers, 19.3%). Approximately 10% were step- or great grandparents. Procedures for this analysis (e.g., parceling, model fit, orthogonalized interaction) were equivalent to the "most contact" analysis. Age salience was again found to be negatively related with shared family identity, $r(369) = -.15$, $p < .001$. The measurement model showed close goodness of fit, $\chi^2(N = 369,\ 178) = 365.78$, $p < .001$; NNFI = .96; CFI = .97; RMSEA = .054 (see

Table 1, all grandparents, for completely standardized loadings of indicators in final structural model). Similar support emerged here for convergent and discriminant validity of the model.

The hypothesized model with the interaction showed acceptable fit, $\chi^2(N = 369, 330) = 597.14$, $p < .001$; NNFI = .97; CFI = .97; RMSEA = .047. Modification indices indicated that further estimates would not significantly improve the fit. Removal of nonsignificant paths from the hypothesized model did not significantly reduce fit, $\Delta\chi^2(N = 369, 6) = 6.80$, $p > .05$, so the more parsimonious model was retained (see Figure 3). Results follow the pattern of the "most contact" model with four exceptions. First, there is no interaction effect between age salience and shared family identity. Second, shared family identity was positively associated with attitudes towards one's aging. Hence, the data suggest that shared family identity mediates the relationship between the exogenous variables (personal communication, parental encouragement, grandchild family identification) and the two outcome attitudes measures. Third, the strength of association between intergroup communication and perceptions of age salience is lower (as is the amount of variance explained in age salience) in the all grandparent model. Fourth, there was no significant relationship between parental encouragement and grandparent health.

Discussion

Communicative, Relational, and Family Identity Issues

As expected, shared family identity and age salience were negatively related. However, this relationship was weak. This offers some hope for finding ways to simultaneously maximize group salience and shared identity—a combination that would maximize positive attitudinal outcomes (Hewstone & Brown, 1986). The structural model analysis treated these two constructs as higher order evaluations of communicative/relational dimensions of the grandparent–grandchild relationship. When communicative/relational dimensions are included, the association between shared family identity and age salience is no longer significant, suggesting that the association between shared family identity and age salience is a function of associations in the underlying communicative dimensions.

Since most previous research on intergroup interaction involves generic measures of quality of contact, we investigated more specific communicative manifestations of that construct. Personal communication was indicated by perceptions of social support and reciprocal self-disclosure, whereas intergroup communication was indicated by perceptions of overaccommodation and underaccommodation. As expected, personal communication emerged as a strong influential factor in perceptions of shared family identity across *all* grandparents. Although self-disclosure and social support have been identified as significant dimensions of the quality of interpersonal relationships, their role in grandparenting relationships is only beginning to be studied (Tam, Hewstone, Harwood, Voci, & Kenworthy, in press). Demonstrating the presence of these behaviors and their links to relational

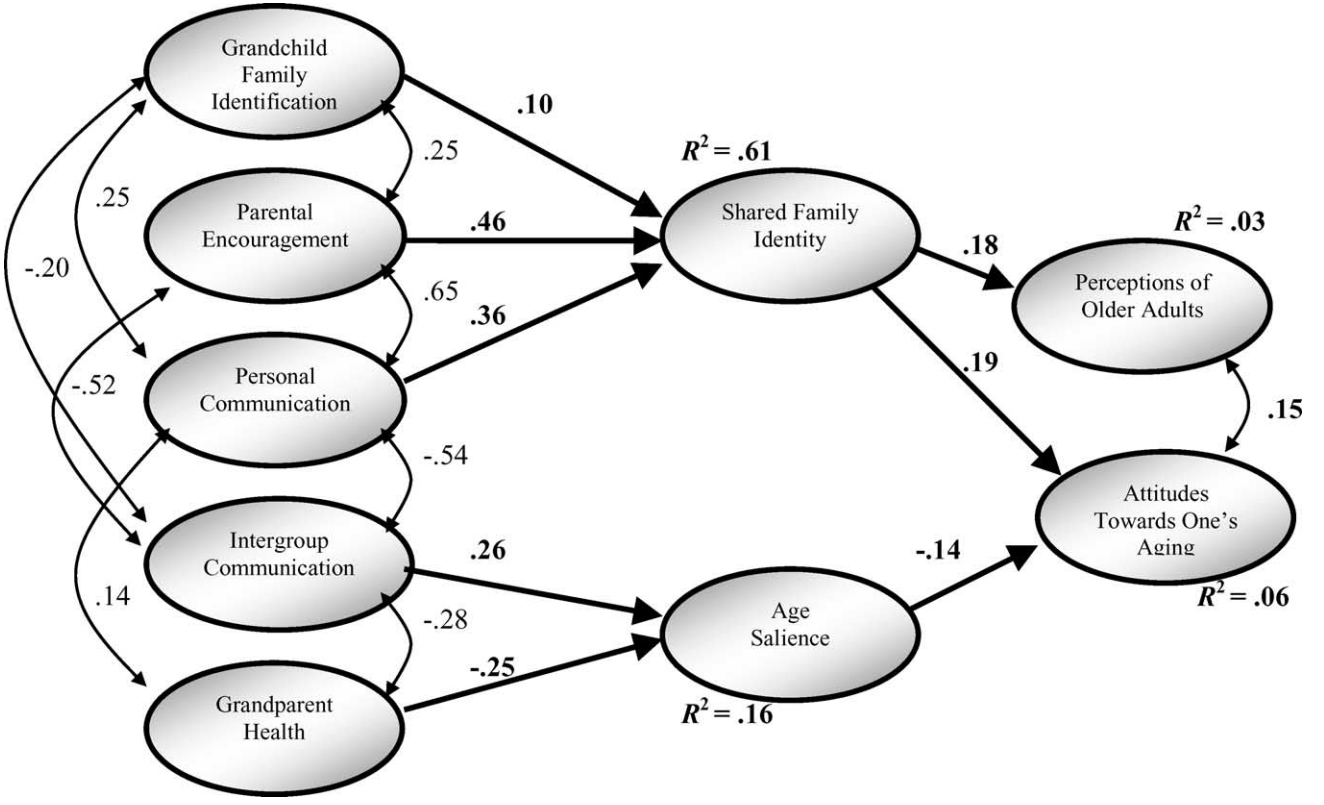

Figure 3 Final structural model for "all grandparents" analysis. $\chi^2(N = 369, 336) = 603.94$, $p < .001$; NNFI = .97; CFI = .97; RMSEA = .046. Parameters for indicators are provided in Table 1.

outcomes counters stereotypes that grandparenting relationships lack depth. Further work should examine the role of these two variables in maximizing positive consequences of intergroup encounters.

In line with expectations, intergroup communication is associated with perceptions of age salience. According to CAT, over- and underaccommodation are likely to render group memberships salient in interaction (e.g., a grandparent's painful self-disclosure will immediately trigger age as a relevant situational construct). The relationship between intergroup communication and age salience decreases when considering *all* grandparent–grandchild interactions as opposed to the grandparent with most contact. This may be because stereotypes of age play a larger role in grandparent–grandchild relations when interaction is less frequent, and hence communication is reduced to a smaller role in influencing such evaluations (Anderson et al., 2005; Pecchioni & Croghan, 2002). In our context, intergroup communication ultimately exerts a negative pull on attitudes, but more positive effects may accrue from other group-related communication styles (e.g., positive advice-giving from a grandparent).

Findings support the contention that parental encouragement of grandparent contact is related to shared family identity. In fact, when assessing this across all grandparent relations, parental encouragement plays a more significant role than personal communication. This finding adds support to the claim of "institutional support" as a condition of quality of contact. Further research should consider the influence of the parent on the grandparent–grandchild relationship (Whitbeck et al., 1993).

Findings across all grandparents support the prediction that perceptions of impaired grandparent health would emphasize age-group distinction. Likewise, impairment was associated with less personal communication. As noted by Ryan et al. (1986), health-related cues may trigger negative stereotyping, which, in turn, constrains communication. For the grandparent with whom the grandchild has the most contact, impaired health was also associated with reduced levels of parental encouragement. Parents perhaps believe that impaired grandparents are not "up to" much interaction, or they may wish to shelter the grandchild from the challenges of interacting with an impaired grandparent. Overall, in line with expectations, grandparent health may play an important role in triggering intergroup distinctions.

Age-Related Attitudes

Support for intergroup contact theory was found when investigating grandparents with the most frequent contact (shared family identity predicts attitudes). Additionally, in support of theorizing concerning the significance of group salience in outgroup generalization, the data support the idea that this effect is moderated by age salience—age salience had to be high in order for generalization to occur. Although group salience is typically associated with negative affect, it is nonetheless essential to generalization. When assessing *all* grandparent–grandchild relationships, no moderator effect emerged. This is not surprising when we consider that this analysis averaged across levels of shared identity and salience for multiple targets.

In terms of attitudes towards one's aging, findings also support an effect of experiences with grandparents. However, the specific results for this variable are distinct from those for perceptions of older adults, and the two attitude measures were only weakly related. Such findings suggest interesting directions for considering varied attitudinal outcomes in this line of research. As discussed by Levy et al. (2002), attitudes towards one's own aging have significant practical consequences in terms of personal well-being, but they have not been investigated extensively.

In assessing age salience and shared family identity with the grandparent, our research has considered self and other social categorizations at multiple levels, unlike typical research on intergroup interaction that has focused on one level of categorization. To date, contact conceptualized at the *intra*group level (e.g., shared family identity) has rarely been examined in terms of outgroup generalization, although experimental research indicates that cross-categorization (i.e., identifying with two contrasting groups; Brewer, 2000) and superordinate categorization (e.g., identifying as Americans instead of Republican and Democrats; Gaertner & Dovidio, 2000) may both ameliorate some of the negative aspects of outgroup differentiation. Further, in focusing on one level of categorization, previous research may be limited in its reflection of how ingroup and outgroup distinction may operate in personal and family relationships (see also Pettigrew, 1998). Hence, our approach has practical applications for other intergroup contexts which may be relevant in family and other personal relationships (e.g., interfaith and interethnic families, social groups consisting of heterosexual and gay and lesbian members). With its emphasis on the relationship between group identities and communication, Communication Accommodation Theory offers a useful framework here given its ability to span intra- and intergroup contexts.

Conclusion

Because the model was based on a single sample, further research should include diverse samples to validate the generalizability of the model. Specifically, our study is limited in terms of the educational and ethnic homogeneity of the sample, as well as the fact that younger and older grandchildren were not included. Future research should attend to cultural differences given their profound importance for age-related attitudes (Williams et al., 1997). Given the number of variables we were examining, we also did not consider sex differences. Previous work has focused on grandmothers and grandfathers, but research should also take into account potential variations between grandsons and granddaughters (Semon-Dubas, 2001). We must also acknowledge potential differences between our subjects' perceptions (of communication, their grandparents' health, etc.) and reality. Finally, our goal was examining structural relationships between these variables, not making strong claims of causality. While the model developed in the study implies causality, longitudinal analysis would enhance our understanding of causal links in the model. Assessing grandparent–grandchild relationships over time might also show how they influence the grandparents (e.g., in terms of health, perceived social support, attitudes about

the young). Despite the limitations, our research provides a better understanding of this intergenerational family dyad. We have highlighted important factors influencing perceptions of shared family identity and age salience, and have demonstrated how experiences with grandparents are related to perceptions of older adults and attitudes towards aging.

Notes

[1] Grandparent accommodation was highly correlated with measures of social support ($r = .73$, $p < .01$), self-disclosure ($r = .63$, $p < .01$), overaccommodation ($r = -.64$, $p < .01$), and underaccommodation ($r = -.50$, $p < .01$).

[2] LISREL 8.54 was used for analysis. Missing data for analyses (less than 0.1%) was imputed with an Expectation Maximum (EM) estimation. Means and standard deviations were examined pre- and postimputation and no notable changes were present. Models were estimated with Maximum Likelihood (ML) estimation.

[3] Intercorrelations for indicators of latent constructs are available from the first author by request.

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