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Ambivalent versus Problematic Social Ties: Implications for Psychological Health, Functional Health, and Interpersonal Coping

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Abstract

Older adults often seek to manage their social networks to foster positive interactions, but they nonetheless sometimes experience negative interactions that detract from their health and well-being. Negative interactions may occur with ambivalent social partners (i.e., partners involved in both positive and negative exchanges) or exclusively problematic social partners (i.e., partners involved in negative exchanges only), but conflicting views exist in the literature regarding which type of social partner is likely to be more detrimental to older adults' physical and emotional health. This study examined the implications of the two kinds of network members for physical and psychological health and interpersonal coping responses in a representative sample of 916 older adults. Within this elderly sample, older age was associated with fewer ambivalent kin ties and fewer exclusively problematic kin ties. Analyses revealed that ambivalent social ties were more strongly related to functional health limitations than were exclusively problematic social ties, whereas problematic ties were more consistently related to psychological health than were ambivalent ties. Furthermore, negative exchanges that occurred with exclusively problematic social ties, as compared to those that occurred with ambivalent social ties, were associated with more avoidant and fewer conciliatory coping responses, stronger and longer-lasting negative emotions, and lower perceived coping effectiveness. A comprehensive understanding of the significance of social network ties in older adults' lives may benefit not only from attention to sources of social support but also from efforts to distinguish between different sources of conflict and disappointment.

Involvement in satisfying social relationships contributes to enhanced emotional and physical health throughout the life span (Cohen, 2004), including later adulthood (Krause, 2006). In fact, the need for satisfying social relationships may be both universal and essential to health and well-being (Baumeister & Leary, 1995). Older adults pursue the fulfillment of this need proactively, by seeking to manage their social relationships in ways

that foster positive interactions and reduce negative interactions (Carstensen, Fung, & Charles, 2003). Advancing age brings with it an awareness that time left to live is limited, leading people to strive to invest their time in emotionally rewarding relationships and to disengage from relationships that offer few rewards (Carstensen et al., 2003), and evidence suggests that many older adults succeed in achieving these goals (Luong, Charles, & Fingerma, 2011).

Although older adults report having more supportive ties and fewer aversive ties than do middle-aged adults (Windsor & Butterworth, 2010), it is not always possible for older adults to winnow problematic relationships from their social networks. Exchanges with some social network members (such as extended kin, in-laws, or coworkers) may be driven by social role obligations, rather than by mutual attraction and liking. Such relationships can become a source of negative exchanges exclusively, and they have come to be termed “problematic relationships” (Fingerman, Hay, & Birditt, 2004; Rook, 1984). Interactions with other social network members (such as adult children, grandchildren, and friends) may be anchored in positive sentiments and feelings of commitment, but even in these relationships, misunderstandings can occur and resentments can develop. Thus, such relationships can be a source of both positive and negative exchanges, and they have come to be termed “ambivalent relationships” (Fingerman et al., 2004; Uchino, Holt-Lunstad, Uno, & Flinders, 2001).

Some research, as discussed below, has differentiated between ambivalent and problematic social network members, but little research has examined how older adults respond to negative exchanges with these two types of network members. The purpose of this study was to examine the implications of ambivalent and problematic social network members for older adults’ psychological health and functional health and, in particular, to investigate older adults’ coping responses and emotional reactions to negative exchanges with these two kinds of social ties. We also examined age differences in these associations because previous research documenting an age-related increase in the desire to avoid or disengage from negative social ties generally has not differentiated between ambivalent and exclusively problematic ties across a broad range of role relationships (though see Fingerman et al., 2004, for an exception). Thus, the current study will examine age differences in an older sample to test whether the age-related patterns found in previous research extend into very late life.

Ambivalent versus Problematic Social Network Members, Functional Health, and Psychological Health

The small empirical literature that has distinguished between ambivalent and exclusively problematic social network members has focused primarily on the implications of the two kinds of social network members for health and well-being. This work has demonstrated that ambivalent ties and problematic ties make independent contributions to physical and psychological distress, although the relative strength of these effects varies across studies. In a study of young adults, participants were randomly assigned to think about and discuss different types of social partners, such as problematic or ambivalent ties (Bloor, Uchino, Hicks, & Smith, 2004). Participants assigned to talk about problematic ties rated these ties as being more upsetting in everyday interactions compared to the ratings of participants who discussed ambivalent ties. Additionally, women who discussed their problematic ties exhibited greater cardiovascular reactivity than did women who were assigned to talk about ambivalent ties. In another study that employed an experience sampling methodology, participants reported greater negative affect when they interacted with problematic ties, compared to ambivalent ties (Holt-Lunstad, Uchino, Smith, Olson-Cerny, & Nealey-Moore, 2003).

In contrast, other studies have shown that ambivalent ties, but not problematic ties, are associated with poorer health-related outcomes, such as higher levels of systolic and diastolic blood pressure (Holt-Lunstad et al., 2003) and shorter telomere length, an indicator of cellular aging (e.g., Uchino et al., 2012). Individuals who were primed to think about ambivalent relationships exhibited greater heart rate reactivity and greater decreases in respiratory sinus arrhythmia compared to individuals primed to think about other social partners, including problematic partners (Carlisle et al., 2011). In still other studies, both ambivalent and problematic social ties have been found to be associated with greater psychological distress (e.g., Rook, 1984, Uchino et al., 2001).

Thus, the literature has documented that both categories of social network ties have the potential to detract significantly from older adults' psychological and physical health, but existing findings are sparse and inconsistent regarding which category of social ties is more strongly associated with poorer health and well-being. In general, a review of existing evidence suggests that ambivalent social ties are more strongly linked to physiological reactivity and markers of physical health than are problematic social ties. In only one study published to date, cardiovascular reactivity was greater among participants instructed to talk about problematic social ties, compared to those who talked about ambivalent ties, but this effect was moderated by gender (Bloor et al., 2004). Studies examining associations between the two kinds of social ties thus document more consistent links between ambivalent social ties and physical health.

With respect to psychological health, the literature offers differing views regarding the implications of ambivalent versus problematic social ties. On the one hand, the inconsistent nature of ambivalent social ties, by virtue of their vacillating involvement in positive and negative exchanges, is thought to be a source of distress in its own right. Unpredictability is generally associated with greater emotional reactivity (e.g., Miller, 1986), which suggests that ambivalent ties would be associated with greater psychological distress than would problematic ties. Because ambivalent social ties generate both positive and negative exchanges, their unpredictability may also make it more difficult to adapt to and cope with these ties, as compared with exclusively problematic ties, which tend to be more predictably negative (e.g., Uchino et al., 2001; 2004). On the other hand, because ambivalent social ties have at least some positive component in the relationship, they may have the potential to boost positive affect (Abbey, Abramis, & Caplan, 1985) or at least to arouse less distress than problematic social ties, which have little redeeming value. In addition, older adults' ambivalent ties frequently are close kin ties (such as spouses, adult children, and siblings), whereas problematic ties frequently are acquaintances (including co-workers) and, to a lesser extent, friends and extended kin (Fingerman et al., 2004). As a result, adapting to negative exchanges with ambivalent social ties may actually be facilitated because individuals are likely to have known ambivalent ties for a longer duration and may be better able to predict the nature and outcome of negative exchanges with these ties.

Previous studies of the links between ambivalent versus problematic social ties and psychological health have seldom examined positive as well as negative dimensions of well-being. If ambivalent ties do sometimes boost psychological well-being, detecting such benefits would require researchers to examine positive, as well as negative, dimensions of psychological health (cf. Ingersoll-Dayton, Morgan, & Antonucci, 1997). Additionally, much previous work on the implications of ambivalent versus problematic social ties for psychological and physical health has been conducted with relatively small, non-representative samples, often emphasizing younger age groups. The current study accordingly evaluated the implications of ambivalent versus problematic social ties in a large, representative sample of older adults, taking the kin versus nonkin status of these ties into account and examining physical health and as well as positive and negative dimensions

of psychological health. An additional goal of the study was to examine age differences in these associations. Based on previous research that has documented age differences in social preferences and strategies of relationship regulation (Carstensen et al., 2003; Luong et al., 2011), we expected advancing age in this elderly sample to be associated with fewer ambivalent and problematic social ties, more efforts to minimize the distress aroused by such ties, and fewer adverse health-related effects of such ties (Luong et al., 2011).

Responses to Negative Exchanges with Ambivalent versus Problematic Social Network Members

A literature on older adults' coping responses to negative exchanges with members of their social networks is beginning to emerge (e.g., Birditt, Fingerman, & Almeida, 2005; Coats & Blanchard-Fields, 2008; Sorkin & Rook, 2006), but it has rarely differentiated between exchanges that occur with ambivalent versus exclusively problematic social network members. Researchers have speculated, however, about possible differences in the coping responses and emotional reactions elicited by the two kinds of social network members.

Because older adults' ambivalent network members are often close kin ties, efforts to resolve disagreements and misunderstandings with ambivalent network members might be expected to be more vigorous or motivated more by relationship-oriented goals than would efforts to resolve disagreements with exclusively problematic network members, who are often nonkin ties. Evidence from younger adults suggests that the motivation to maintain an ambivalent tie stems from being committed to the relationship and focusing on its positive qualities (Bushman & Holt-Lunstad, 2009). Similarly, in a study of parent-child relationships in later life that were characterized by both ambivalence and frequent contact, half of the elderly parents judged the relationships to be of high quality, despite the existence of tensions in the relationships (van Gaalen, Dykstra, & Komter, 2010). Thus, when older adults experience a negative exchange with an ambivalent social network member, as compared with an exclusively problematic network member, they may be more likely to use interpersonal coping strategies that promote relationship maintenance, such as attempting to reach a mutually satisfactory compromise, yielding to the person's wishes, sharing responsibility for the problem (including accepting some of the blame for the problem), and engaging in conciliatory behavior (such as forgiveness). Similarly, older adults' coping responses to negative exchanges with ambivalent network members, as compared with problematic network members, may be more likely to be directed toward preserving goodwill in the relationship rather than toward changing the network member's behavior. These effects are likely to be stronger among kin ties relative to nonkin ties, given the importance of family relationships in older adults' lives (Dykstra, 1993).

Conversely, when older adults experience a negative exchange with an exclusively problematic network member, they may be less inclined to engage in relationship-preserving coping responses and, instead, may be more likely to seek to change the network member's objectionable behavior, to avoid the situation (by avoiding the network member altogether or by refraining from thinking about the problem), or to focus on managing their own distress. Avoidant and emotion-focused forms of coping have been found to be more common and to have adaptive value when people are dealing with problems they perceive to be relatively unchangeable or uncontrollable (Compas, Banez, Malcarne, & Worsham, 1991), such as negative exchanges with involuntary ties. The goals that drive older adults' coping responses to negative exchanges with problematic social network members, similarly, are less likely to involve preservation of harmony in the relationship and more likely to involve efforts to change the network member or to manage one's own emotional distress.

Based on previous work that has revealed age differences across adulthood in emotion regulation strategies and interpersonal problem solving (e.g., Birditt et al., 2005; Blanchard-Fields, Mienaltowski, & Seay, 2007; Coats & Blanchard-Fields, 2008), we expected the older participants in this elderly sample, relative to the younger participants, to respond to negative exchanges with more conciliatory, less confrontational, and more avoidant coping responses; to be more likely to report preservation of relationship harmony and management of their emotional distress as their paramount coping goals; and to report less emotional distress and greater perceived coping effectiveness.

The Current Study

The current study sought to add to the sparse literature on two distinct categories of social network members involved in negative social exchanges in older adults' lives – those who function as a source of positive as well as negative exchanges (ambivalent network members) and those who function as a source of negative exchanges exclusively (problematic network members). We aimed to build upon previous research by examining the associations between functional and psychological health and ambivalent versus problematic network members in a large, representative sample of older adults. We also sought to delve into the seldom examined issue of how older adults respond to negative exchanges that occur with ambivalent versus problematic social network members. Moreover, because the effects of ambivalent versus problematic network ties have often been intertwined in the literature with the effects of their kinship status, we took advantage of a large sample and a complete mapping of participants' social networks to take into account the kinship status of the two types of network ties. The large sample also allowed us to examine later-life age differences in the health-related implications of, and coping responses to, negative exchanges with ambivalent versus problematic kin and nonkin network members.

We hypothesized that ambivalent social ties would be more strongly related to worse functional health than would problematic social ties, given that ambivalent ties have been linked in previous studies to markers of poorer health, such as elevated blood pressure, greater cardiovascular reactivity, and decreased telomere length. In contrast, we hypothesized that exclusively problematic social ties would be more strongly related to worse psychological health than would ambivalent social ties, based on our expectation that problematic ties offer fewer rewards and present more coping challenges than do ambivalent social ties. In this regard, we also hypothesized that negative exchanges involving problematic social ties, as compared to those involving ambivalent social ties, would: 1) elicit fewer cooperative and conciliatory coping responses, and more confrontational, avoidant, and emotion-focused responses, 2) elicit less motivation to preserve goodwill in the relationship and greater motivation to change the network member or to manage one's own emotional distress, and 3) arouse stronger and longer-lasting emotional distress and low perceived coping effectiveness. We anticipated that the predicted differences would be more evident among kin than nonkin ties, given the centrality of kin ties in older adults' lives (Dykstra, 1993). Finally, as noted earlier, we expected these differences to be more pronounced among older participants, relative to younger participants, in this elderly sample.

Method

Sample

Data for the current study came from the baseline assessment of the Later Life Study of Social Exchanges (LLSSE; see Sorkin & Rook, 2004). Participants were randomly drawn from 98 counties in the coterminous United States (primary sampling units, PSUs) stratified

to represent different geographic regions and regions with differing population densities. A particular PSU had a probability of being selected proportionate to the number of persons who were 65 years of age or older living within that PSU. The sampling frame was obtained from the Medicare Beneficiary Eligibility List of the Centers for Medicare and Medicaid Services (CMS). The study population was defined as non-institutionalized, English-speaking, 65-90 years of age, and cognitively functional.

Prospective participants received a letter describing the study and were then contacted by to schedule the initial interview. Prior to the start of the interview, informed consent to participate in all waves of the study was obtained from the participants. Among those who were eligible and who could be contacted, 53% were enrolled. The sampling and survey data collection were conducted by Harris Interactive, Inc., a survey research firm with a long history of experience conducting public opinion polls and social science surveys in the United States, including surveys with older adults.

The baseline sample consisted of 916 participants (349 men and 567 women). Participants' average age was 74.16 years ($SD = 6.63$). Slightly more than half (54%) of the participants were married, 34% were widowed, 8% were divorced, and 4% were never married. Eighty-three percent of the participants were White, 11% were African American, 5% were Hispanic, and 1% belonged to another ethnic minority group (e.g., Asian, Native American). The study participants closely resembled the older (65+) U.S. population based on comparisons with the 2000 census data (U.S. Bureau of the Census, 2000).

Measures

In-person interviews lasting an average of 70 minutes assessed participants' demographic characteristics, health status, psychological health, positive and negative social exchanges, social network ties, and coping responses to a specific negative social exchange.

Functional health limitations—We examined participants' functional health limitations as an important dimension of their physical health. Participants rated on a 4-point scale (0 = *not at all difficult*, 3 = *very difficult*) how difficult it was for them to engage in each 15 activities of daily living and instrumental activities of daily living (e.g., Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963). The 15 items were averaged to create an overall measure of functional impairment (Cronbach's $\alpha = .92$).

Psychological health—Both positive and negative aspects of psychological health were assessed. *Positive affect* was assessed with a 5-item scale developed by Diener and Emmons (1984, Studies 3 through 5). Participants rated on a 5-point scale (0 = *very slightly or not at all*, 4 = *very much*) the extent to which five adjectives (happy, joyful, pleased, enjoying myself, satisfied) described their feelings over the past month (Cronbach's $\alpha = .86$). We assessed *depressive symptoms* with a 7-item version (based on Santor & Coyne, 1997) of the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). Abbreviated versions of the CES-D have been found to be efficient in detecting depressive symptoms in older adults and in community samples (Zauszniewski & Graham, 2009). The short version used in the current study omits items that refer to interpersonal problems and items that assess happiness/enjoyment of life to avoid overlap with negative social exchanges and positive affect (Cronbach's $\alpha = .80$).

Ambivalent versus problematic social network members—We used a two-step process to identify social network members who functioned as sources of both positive and negative social exchanges (ambivalent network members) or who functioned solely as sources of negative social exchanges (problematic network members). First, we assessed the

frequency with which participants had experienced various positive and negative social exchanges in the past month. Twelve items asked participants how often they had experienced positive exchanges in four domains that have been found to be important in the literature: informational support, instrumental support, emotional support, and companionship. Twelve additional items asked participants how often they had experienced negative exchanges in four parallel domains: others' unwanted advice/intrusion, others' failure to provide help, others' unsympathetic/insensitive behavior, and rejection/neglect by others (see Newsom, Rook, Nishishiba, Sorkin, & Mahan, 2005 for additional information about these measures).

In the second step, we adapted a method of social network assessment initially developed by McCallister and Fischer (1978). For each positive or negative domain in which social exchanges had occurred in the past month, participants were asked to identify the specific individuals with whom these exchanges occurred. This network-elicitation process was repeated for each of the domains of positive and negative exchanges, and the information was used to classify the social network members into three groups: 1) *ambivalent network members* (those who were named as a source of both positive and negative exchanges), 2) *problematic network members* (those who were named as a source of negative exchanges only), and 3) *exclusively positive social network members* (those who were named as sources of positive social exchanges only). Scores were then derived for each respondent that reflected the number of exclusively problematic network members, number of ambivalent network members, and number of exclusively positive network members. Although our primary focus is on ambivalent versus problematic social ties, we examined positive social ties, as well, to control for their associations with psychological health and to provide a broader context for interpreting the results reported.

Kin versus nonkin status of ambivalent and problematic social network members—Additional questions that followed the social network elicitation asked participants to report on specific characteristics of their relationship with each network member, including the nature of the role relationship with the network member. Kin ties were defined as ties with spouses, adult children, siblings, parents, grandchildren, other relatives, and in-laws. Nonkin ties were defined as ties with friends, neighbors, co-workers, acquaintances, home aides, or other nonrelatives. The kin versus nonkin classification of each network member was combined with his or her classification as ambivalent, problematic, or positive, and the resulting joint classifications of each participant's social network members were tallied to yield measures of *ambivalent kin ties*, *problematic kin ties*, *positive kin ties*, *ambivalent nonkin ties*, *problematic nonkin ties*, and *positive nonkin ties*.

Positivity versus negativity of the different types of social network members—In examining the health-related implications of these different types of social network members, it is important to take into account the degree of positivity evident in exclusively positive versus ambivalent social ties and, likewise, to take into account the degree of negativity evident in exclusively negative versus ambivalent social ties. A strictly categorical classification of social network members does not capture the positivity or negativity of different kind of network ties and, for this reason, we constructed additional measures that gauged positivity and negativity in terms of the number of positive and negative social exchange domains, respectively, in which each social network member was engaged. Specifically, positivity was gauged by assigning each ambivalent network member and each exclusively positive network member a score from 1 to 4 that reflected the number of domains of positive social exchanges in which the network member had been engaged during the past month; by definition, exclusively problematic network members received a score of 0 on this measure. Similarly, negativity was gauged by assigning each ambivalent network member and each exclusively negative network member a score from 1 to 4 that

reflected the number of domains of negative social exchanges in which the network member had been engaged during the past month; by definition, exclusively positive network members received a score of 0 on this measure.

This information was combined with information about the network member's kin or nonkin status and was summed across network members to yield 4 measures that captured the *positivity of exclusively positive kin ties*, the *positivity of ambivalent kin ties*, the *negativity of ambivalent kin ties*, and the *negativity of exclusively problematic kin ties*. Four parallel measures were created that reflected the *positivity of exclusively positive nonkin ties*, the *positivity of ambivalent nonkin ties*, the *negativity of ambivalent nonkin ties*, and the *negativity of exclusively problematic nonkin ties*. An important benefit of these measures is that they make it possible to evaluate whether the positive aspects of ambivalent ties have similar or different implications for health and well-being than do the positive aspects of exclusively positive ties and, likewise, whether the negative aspects of ambivalent ties have similar or different implications than do the negative aspects of exclusively negative ties. This allowed us to “unpack” the implications of ambivalent social ties, and also avoided possible over- or underestimation of the positivity and negativity of different kinds of ties, which might otherwise occur with a strictly categorical classification of network ties.

Responses to negative exchanges: coping responses, coping goals, emotional distress, and perceived coping effectiveness—In this elderly sample, 61% of participants reported having recently experienced one or more negative social exchanges ($N = 562$); this percentage corresponds to figures reported in other studies of older adults' social exchanges (Rook, 1990). The participants who reported having experienced one or more recent negative exchanges were administered a module of questions that assessed their responses (coping, emotional distress, and perceived coping effectiveness) to a negative exchange that had occurred with a specific social network member ($N = 467$); the module was not administered to 95 participants who declined to identify particular individual(s) with whom they had experienced negative exchange(s). For participants who had experienced negative exchanges with multiple network members, the interviewer followed a prescribed algorithm to identify a specific network member to be the focus of the module of questions about emotional reactions and coping experiences. This involved first selecting the most frequently named source of negative exchanges and then selecting the specific domain of negative exchange for which the individual was first named.

Participants' *coping responses* were assessed using a measure adapted from the Ways of Coping Scale (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) and the Rahim Organizational Conflict Inventory (Rahim, Afzalur, & Nace, 1995). Items were worded to reflect possible responses to negative social exchanges rather than responses to stressful life events in general (e.g., Folkman et al., 1986) or to workplace conflicts (e.g., Rahim et al., 1995). To minimize participant burden while still capturing a broad range of coping responses, single items assessed eight types of coping responses chosen to reflect, on the one hand, efforts to preserve the relationship or, on the other hand, efforts to change or avoid the person, avoid the problem, or manage one's own distress. Coping responses that were conceptualized as directed toward preserving the relationship included: *compromising* (“You tried to find a solution that would satisfy both of you”), *yielding* (“You gave in to what [NAME] wanted”), *accepting responsibility for the problem* (“You thought that you brought the problem on yourself”), and *forgiving the person* (“You forgave [NAME]”). Coping responses that were conceptualized as directed toward changing or avoiding the person, avoiding the problem, or managing one's own distress included: *asserting oneself* (“You stood your ground and argued on your own behalf”), *avoiding the person* (“You avoided [NAME of the network member] or kept your distance”), *cognitive distancing* or refusing to think about the situation (“You put the situation out of your mind and refused to

think about it”), and *seeking social support* (“You talked to someone else about how you felt or how you could handle the situation”). Participants indicated on a 4-point scale (0 = *not at all*, 3 = *very well*) how well each of the statements described the manner in which they tried to respond to the negative exchange with the network member.

Participants’ *coping goals* were assessed with three items that asked them to indicate whether they had any of the following coping goals in mind as they were responding to the negative exchange: (1) “You wanted to get [NAME] to change his/her behavior toward you,” (2) “You wanted to preserve goodwill or avoid tensions in the relationship with [NAME],” and (3) “You wanted to keep yourself from feeling upset about the situation.” If participants reported having had more than one coping goal, they were asked which goal had been most important in the situation. Using this process, one *primary coping goal* was derived for each participant.

We assessed emotional distress with three items that asked participants how angry, sad, or anxious they felt at the time of the negative exchange with the network member. Ratings were made on a 4-point scale (0 = *not at all*, 3 = *very*). These items were averaged to create a composite measure of the *level of emotional distress* experienced during the negative exchange (Cronbach’s $\alpha = .71$). We also assessed the *duration of emotional distress* by asking participants to indicate how long they had experienced the emotional distress (sadness, anger, anxiety) reported earlier. Ratings were made on a 4-point scale ranging (0 = *you felt this way just at the time this happened*, 3 = *you still feel this way*).

Participants were also asked to indicate how effectively they felt they had responded to the negative social exchange. Specifically, participants’ *perceived coping effectiveness* was evaluated by asking them to indicate on a 4-point scale (0 = *not at all successful*, 3 = *very successful*) how successful they had been in attaining their primary coping goal.

Covariates—Age, sex (0 = *male*, 1 = *female*), and the *number of chronic health conditions* with which the participant had been diagnosed (from a list of 12 conditions, e.g., high blood pressure/hypertension, diabetes, arthritis/rheumatism) were included as covariates in our hypothesis tests. Although age is grouped with other demographic characteristics, the current study includes a substantive focus on age differences, and we accordingly examine main effects and interaction effects involving age in our hypothesis tests

Results

Descriptive Analyses

The study participants identified a total of 5,088 network members with whom they had experienced positive and/or negative exchanges. Of these social network members, 80.31% ($N = 4086$) were classified as exclusively positive, 9.65% ($N = 491$) were classified as ambivalent, and 10.04% ($N = 511$) were classified as exclusively problematic. These percentages correspond closely to those reported by Fingerman et al. (2004) and confirm findings from previous studies indicating that the majority of older adults’ social network members function as sources of positive exchanges only (Rook, 1990). The presence of comparable numbers of ambivalent and problematic ties in participants’ social networks converges with the results of some previous studies (e.g., Fingerman et al., 2004) but diverges from others (e.g., Uchino et al., 2004).

Participants’ social networks reflected, on average, the following distribution of network members: exclusively positive social ties, $M = 4.46$, $SD = 2.95$, range = 0 to 17; ambivalent social ties, $M = 0.56$, $SD = 1.00$, range = 0 to 7; and exclusively negative members, $M = 0.54$, $SD = 0.91$, range = 0 to 5. These figures are lower than those reported in studies that have

assessed the number of social network members who could or who sometimes participate in various kinds of exchanges (e.g., Antonucci & Akiyama, 1987); the current study, in contrast, focused on those social network members who had been involved in various kinds of exchanges in the past month.

As anticipated, advancing age in this elderly sample was associated, although modestly, with having fewer ambivalent kin ties, $r(914) = -.12, p < .001$ and having fewer exclusively problematic kin ties, $r(914) = -.12, p < .001$. Comparable associations with age were not found when participants' nonkin ties were examined. Advanced age was not significantly related to having fewer positive kin ties, but was marginally related to having fewer positive nonkin ties, $r(914) = -.06, p < .06$.

Nature of the role relationships with ambivalent versus problematic network members

As a context for understanding the results of our hypothesis tests, we examined the nature of participants' role relationships with network members classified as ambivalent versus problematic. Role relationship information was missing for 49 of the 5,088 network members reported; therefore, the analyses presented are based on 5,039 network members. Table 1 presents the percent of network members within each of 11 categories of role relationships; two role relationship categories considered too small to disaggregate (parents, $N=21$; home aides, $N=33$) are excluded from the table. Percents are calculated within each role relationship category in Table 1 to take into account variability in the number of people who could plausibly be represented within a given role relationship type; for example, participants could name one spouse at most, but they could name multiple children, relatives, friends, acquaintances, etc. (cf. Fingerman et al., 2004).

Consistent with previous research, the majority of network members functioned as sources of positive exchanges exclusively, although this majority is slimmer for relatively peripheral and involuntary nonkin relationships, such as relationships with acquaintances and co-workers. In contrast, relationships that are normatively considered both close and voluntary (Blieszner & Roberto, 2004), such as those with friends, neighbors, and other nonkin (e.g., clergy), were more likely to be exclusively positive. Participants' kin ties generally exhibited neither the exclusive positivity of voluntary nonkin ties nor the exclusive negativity of involuntary nonkin ties but, instead, occupied an intermediate position on these dimensions.

Ambivalent versus Problematic Social Network Members, Psychological Health, and Functional Health

Our next analyses examined the implications of ambivalent versus problematic social network members for participants' psychological and physical health, taking the network members' kinship status into account as well. In these analyses, participants ($N=916$), rather than participants' social network members, represent the unit of analysis. We conducted three separate multiple regression analyses in which each of the measures of psychological health (depressive symptoms or positive affect) and measure of physical health (functional health limitations) was regressed in step 1 on the covariates (age, sex, number of chronic health conditions), in step 2 on the 8 social network variables (positivity of exclusively positive kin ties, positivity of ambivalent kin ties, negativity of ambivalent kin ties, negativity of exclusively problematic kin ties, positivity of exclusively positive nonkin ties, positivity of ambivalent nonkin ties, negativity of ambivalent nonkin ties, negativity of exclusively problematic nonkin ties) and in step 3 on terms representing the interaction of age with each of the social network variables. Age and the social network variables were centered before creating the interaction terms (Aiken & West, 1991). In these and subsequent analyses, alpha levels were adjusted using Bonferroni corrections for each

family of analyses. Only one significant interaction with age emerged (described below); therefore, we emphasize in Table 2 the main-effect findings from these analyses.

The findings revealed that greater functional impairment (shown in Table 2, left panel) was significantly related to greater negativity of ambivalent kin ties ($\beta = .17, p < .01$) but was not significantly related to the other social network variables. No interactions between age and the social network variables were significant. These findings are generally consistent with our hypothesis that ambivalent social ties would be more strongly linked to functional impairment than would problematic ties, and the findings indicate that it is the negative aspects of ambivalent ties, rather than their positive aspects, that are most strongly linked to functional health. Similarly, as expected, interactions with ambivalent kin ties appeared to be more consequential for functional health than did interactions with ambivalent nonkin ties.

With respect to psychological health, greater positive affect (shown in Table 2, middle panel) was associated with greater positivity of both exclusively positive kin ($\beta = .15, p < .001$) and exclusively positive nonkin ($\beta = .09, p < .01$) ties. Lower positive affect was related, in contrast, to the negativity of both ambivalent kin ($\beta = -.20, p < .001$) and exclusively problematic kin ($\beta = -.10, p < .01$) ties. The negativity of exclusively problematic nonkin ties did not exhibit a main effect, but did interact significantly with age ($\beta = .08, p < .01$, not shown in Table 2). The interaction effect was evaluated by examining simple slopes at $+1$ *SD* above and -1 *SD* below mean age, as recommended by Aiken and West (1991). These tests revealed a nonsignificant slope ($\beta = .05, ns$) among the older participants ($M_{age} = 80.79$) but a significant slope ($\beta = -.08, p < .05$) among the younger participants ($M_{age} = 67.53$). This pattern is consistent with socioemotional selectivity theory (Carstensen et al., 2003) in that advanced age appeared to play a role in muting the mood-dampening effects of negative exchanges with nonkin, although a comparable muting effect was not evident for negative exchanges with kin ties (ambivalent or problematic). No other interactions with age emerged.

The analysis of depressive symptoms (Table 2, right panel) revealed that greater positivity of exclusively positive kin ties was associated with significantly fewer depressive symptoms ($\beta = -.07, p < .05$, marginal with Bonferroni correction). Greater negativity of ambivalent kin ties ($\beta = .14, p < .01$), problematic kin ties ($\beta = .12, p < .001$), and problematic nonkin ties ($\beta = .09, p < .01$) were associated with significantly more depressive symptoms. The analysis revealed no interaction effects with age.

Considered together, these results provide some support for the prediction that problematic social ties would be more strongly related to older adults' psychological health than would ambivalent social ties, particularly among kin ties. Moreover, no evidence emerged that the positive component of ambivalent social ties benefitted older adults' positive psychological health (either by enhancing positive affect or reducing depressive symptoms). Only the level of positivity of exclusively positive social ties was associated with enhanced psychological health.

Responses to Negative Exchanges with Ambivalent versus Problematic Social Network Members

Our next analyses examined participants' coping responses, coping goals, emotional distress, and perceived coping effectiveness as they dealt with a recent negative exchange with a social network member. Multiple regression analyses were conducted to examine the continuous dependent variables as a function of the ambivalent versus exclusively problematic nature of the social tie in which the negative exchange had occurred, the kin versus nonkin status of the tie, and the covariates (age, sex, number of chronic health

conditions). Chi-square analysis was used to examine the participant's primary coping goal as a function of the type (ambivalent vs. problematic) and kinship status (kin vs. nonkin) of the relationship with the social network member. Effects of age were also evaluated in these analyses.

Before conducting these analyses we examined whether participants who reported their reactions to a negative exchange with an ambivalent network member differed from participants who reported their reactions to a negative exchange with an exclusively problematic network member. Analyses revealed that the two groups did not differ significantly in age, sex, marital status, employment status, race, self-rated health, or number of chronic health conditions.

Coping responses—Multiple regression analyses were conducted in which each of the eight coping responses was regressed on the covariates (age, sex, number of chronic health conditions) in the first step, on two key characteristics of the social network member with whom the negative exchange occurred (ambivalent vs. exclusively problematic, kin vs. nonkin) in the second step, on two-way interactions between age and each network member characteristic in the third step, and on a three-way interaction of age and both network member characteristics in the fourth step. Bonferroni corrections for multiple comparisons, revealed significant differences for four of the eight coping responses and marginal differences for two coping responses, as shown in Table 3. Participants who were coping with an exclusively problematic network member were less likely to engage in conciliatory responses, such as attempting to achieve a mutually satisfying compromise, accepting some of the responsibility for the problem, forgiving the network member, and yielding to the network member. Participants who were coping with a problematic network member also were more likely to try to avoid contact with the person and to seek social support from others.

Coping goals—A significant chi-square test, $\chi^2(2, N = 416) = 7.56, p < .05$, revealed that participants' coping goals varied as a function of the type of network member (ambivalent vs. problematic, kin vs. nonkin) with whom the negative exchange had occurred. We expected participants to be more likely to endorse preserving goodwill as their primary coping goal with ambivalent network members and, as shown in Table 4, we found this to be the case among kin ties. In contrast, participants were somewhat more likely to endorse the goal of changing the network member's behavior when they were coping with a negative exchange with an exclusively problematic kin tie. Contrary to expectation, participants endorsed the goal of managing their own distress equally often for ambivalent and problematic network members.

Further chi-square analyses (not shown) that included age dichotomized at the median suggested that the younger and older participants in this elderly sample endorsed different coping goals for ambivalent and problematic kin, $\chi^2(2, N = 416) = 7.54, p < .05$. The younger participants were more inclined than the older participants (27.3% versus 17.6%) to endorse changing the behavior of a problematic kin tie as their primary coping goal. The younger participants, somewhat unexpectedly, were also more likely than the older participants (25.5% versus 12.9%) to endorse the managing their emotional distress as their primary coping goal when responding to a negative exchange with a problematic kin tie. Age differences in coping goals were not evident among participants who were responding to negative exchanges with nonkin $\chi^2(2, N = 416) = 2.25, n.s.$

Emotional distress and perceived coping effectiveness—Our final analyses examined the elderly participants' emotional reactions to and sense of coping effectiveness in dealing with a recent negative exchange. Multiple regression analyses were conducted in

which emotional distress (both level and duration) and perceived coping effectiveness responses were regressed on the covariates (age, sex, number of chronic health conditions) in the first step, on two key characteristics of the social network member with whom the negative exchange occurred (ambivalent vs. exclusively problematic, kin vs. nonkin) in the second step, on two-way interactions between age and each network member characteristic in the third step, and on a three-way interaction of age and both network member characteristics in the fourth step. No main effects or interactions with age emerged in these analyses, after Bonferroni corrections for multiple comparisons. As shown in Table 5, the main effect of the network member's ambivalent versus problematic status was significant, with Bonferroni corrections, for each of the dependent variables. Participants reported a higher level of emotional distress and longer-lasting emotional distress when the negative exchange involved a problematic network member as compared with an ambivalent network member. Similarly, participants judged their coping efforts to have been less successful when the negative exchange involved a problematic network member than when the exchange involved an ambivalent network member.

Although main effects of the network member's kin versus nonkin status were not a central focus of the current study, a main effect (not shown in Table 5) of kinship emerged in these analyses for the level and duration of participants' emotional distress and their perceived coping effectiveness. Specifically, when the negative exchange involved a kin tie, as compared to a nonkin tie, emotional distress was higher and longer lasting, and participants perceived themselves to have coped less effectively.

Discussion

Tensions and disagreements that occur with social network members have been found in many studies to detract from older adults' health and well-being (Krause & Shaw, 2002; Newsom et al., 2005), but relatively few studies have distinguished between individuals who serve as sources of both positive and negative exchanges (ambivalent network members) and individuals who serve as sources of negative exchanges exclusively (problematic network members). The current study sought to contribute in two primary ways to an emerging literature that has begun to make this distinction. First, the study investigated the implications for physical and psychological health of these two categories of network members in a large, representative sample of older adults. Second, the study addressed largely unexamined questions about how older adults react to and seek to cope with negative exchanges that involve the two different categories of network members, taking into account possible age differences, as well. These issues were pursued in analyses that also considered the kin versus nonkin status of older adults' ambivalent and problematic social network members. The results of the current study help to extend existing knowledge of the implications of social network relationships that serve as sources of friction, consistently or intermittently, in later life.

Ambivalent versus Problematic Social Ties and Functional Health

Our findings suggest that ambivalent and problematic social ties exhibit different associations with older adults' health and well-being. We found that the level of negativity of ambivalent kin ties, but not that of problematic kin ties or problematic nonkin ties, was associated with greater functional impairment. This link between ambivalent ties and worse health converges with similar findings in studies of other age groups (e.g., Holt-Lunstad et al., 2003, Uchino et al., 2012). Uchino and colleagues (2012) interpret this association as evidence that the unpredictability of ambivalent ties contributes to interpersonal stress that may harm health if such ties are numerous. Our data do not allow us to claim that ambivalent ties play a causal role in the development of functional impairment, but such ties may create stress in older adults' lives in ways that exacerbate existing health conditions,

amplify the effects of other life stress, or undermine their motivation to engage in health-preserving behaviors (such as exercise, sleep, or sound nutritional practices). Why exclusively problematic social ties would not have similar effects is less clear, but older adults' motivation to avoid problematic ties (Carstensen et al., 2003) may help to limit the toll that such ties take. Alternatively, the greater predictability of exclusively problematic social ties, especially kin ties, may contribute more to emotional distress than to health-damaging stress per se, although this idea would require careful disaggregation in future research given the associations that typically exist between emotional distress and physical health (see review by Salovey, Rothman, Detweiler, & Steward, 2000).

Ambivalent versus Problematic Social Ties and Psychological Health

Our findings challenge views in the literature of the links between psychological health and ambivalent versus problematic social ties. First, we found no evidence that ambivalent ties, by virtue of sometimes functioning as sources of support, contribute to psychological health, as some researchers have speculated (e.g., Abbey et al., 1985). Second, we found little evidence to support the view that negative interactions with ambivalent social network members arouse more psychological distress and are more difficult to adapt to than are negative interactions with exclusively problematic network members (Uchino et al., 2001, 2004). Instead, our results suggest that problematic ties, particularly those involving kin, are more likely to be associated with psychological distress and to pose more coping challenges for older adults. Negative exchanges with problematic social network members, as compared to those with ambivalent network members, elicited more avoidant and fewer conciliatory coping responses, aroused stronger and longer-lasting emotional distress, and resulted in a lower sense of coping effectiveness. The greater emotional impact of, and difficulty coping with, negative exchanges experienced with problematic network ties may help to explain why such ties were more consistently related to worse psychological health in this study than were ambivalent network ties. These findings do not appear to be attributable to problematic social network members' involvement in more domains of negative social exchanges; in fact, supplemental analyses indicated that problematic network members actually engaged in significantly fewer domains of negative exchanges (of the four domains assessed) than did ambivalent network members.

The results raise the question of why problematic social ties are more emotionally distressing and difficult to adapt to than ambivalent ties. One explanation may be that even though ambivalent network members do not appear to enhance emotional health, they do nonetheless provide support and companionship at times, and this may make it easier for older adults to tolerate the negative exchanges that occur with such individuals (e.g., Fung, Yeung, Li, & Lang, 2009). This buffering effect has been conceptualized in the literature as within-source (or same-source) buffering, and some (e.g., Major, Zubek, Cooper, Cozzarelli, & Richards, 1997), though not all (e.g., Okun & Keith, 1998), researchers have found evidence of such buffering effects. In a related vein, people may be more motivated to seek a post-conflict resolution with a network member who also provides some positive benefits. Barrera and Stice (1998, p. 205) commented in this regard, "Relationships that are bankrupt of mutual enjoyment provide few incentives for reconciliation." Consistent with this idea, the elderly participants in this study more often endorsed the goal of preserving goodwill and less often endorsed the goal of changing the network member's behavior in response to a negative exchange that involved an ambivalent kin tie, as compared with a problematic kin tie.

The coping process may also be more constrained or more likely to go awry when older adults seek to respond to negative exchanges with problematic network members. The elderly participants in our study used different coping responses with problematic versus ambivalent network members. What drives this differential use of coping responses is a

question for future research. It may reflect problematic network members' unresponsiveness to efforts to remedy disagreements or, alternatively, it may reflect limited coping skills among older adults whose social networks include exclusively problematic social network members. Social norms may also limit the range of interpersonal coping responses regarded as appropriate in some contexts, including the responses that can be initiated with interaction partners who are not kin and/or not close. In addition, older adults may consider it too risky in some situations to express their displeasure with others' behavior, leading some resentments to remain submerged (Fingerman, 1998). If such self-censorship more often occurs with exclusively problematic network members, it would provide a further explanation for why such social ties are particularly distressing.

Age Differences and Ambivalent versus Problematic Social Ties

Although the effects of age might be expected to be attenuated in an elderly sample, we did find several age effects, and they were consistent with the propositions of socioemotional selectivity theory (Carstensen et al., 2003) and with previous research on age differences in social motivations and strategies of relationship regulation (Luong et al., 2011). For example, we found that older age was negatively related to the number of ambivalent kin ties and exclusively problematic kin ties. In addition, the level of negativity of exclusively problematic nonkin ties was associated with less positive affect for the young-old adults in the sample, but not for the oldest-old. Thus, the previous findings on age differences in socioemotional regulation processes appear to extend into very late life.

Limitations and Future Directions

Several limitations of the study should be noted in evaluating the results. First, participants' exchanges with members of their social networks and their health and well-being were assessed using self-reports. As a result, personality factors or a negative response set could have caused some participants to perceive both their social ties and their own health and well-being in negative terms. Such an interpretation of our findings seems unlikely, however, as it could not account for the distinctive associations observed for ambivalent versus exclusively problematic social network members. This issue warrants more attention in future research, but Cohen (2004) concluded in a review of the literature that personality traits do not fully account for the health-related effects of negative social interactions.

The dependent variables we assessed to gauge the effects of ambivalent versus problematic social ties may have been too limited to detect some effects of interest. For example, ambivalent kin ties may provide benefits that are not captured by measures of older adults' emotional health. Older adults' tendency to view their intergenerational relationships in positive terms may lead them to feel lenient toward ambivalent ties with their children or grandchildren and to derive feelings of solidarity, generational continuity, or other satisfactions from such ties (e.g., Winkeler, Filipp, & Boll, 2000). Similarly our focus on functional impairment to gauge physical health did not shed light on physiological processes that might help to explain the association between ambivalent ties and worse health.

The current study also lacked information about the older participants' feelings toward the social network members classified as ambivalent versus exclusively problematic. We operationalized ambivalence in terms of mixed patterns of positive and negative interaction rather than mixed sentiments of closeness and resentment per se, as have some researchers (e.g., Suito, Gilligan, & Pillemer, 2011). Both approaches have merit, and bringing them together in future studies of older adults' social relationships would facilitate exploration of previously unexamined questions. For example, although multilevel analyses were not possible in the current study, they could be undertaken in future research to examine the particular patterns of positive and negative exchanges within specific social relationships

that give rise to feelings of ambivalence and to investigate whether the emergence of such feelings varies across age groups or role relationships (cf. Fingerman et al., 2004). Similarly, studies that integrate exchange-based and sentiment-based approaches would help to clarify whether the effects of, and responses to, ambivalent network members are conditioned on underlying feelings of ambivalence.

Future research would also benefit from greater attention to the antecedents and developmental trajectory of positivity, negativity, and ambivalence within older adults' social relationships. Emergent health problems or other challenging life circumstances might precipitate changes in network members' transactions with an older person and, in turn, shifts in the network members' status from positive to ambivalent (or vice-versa). Understanding how such relationships develop, how they evolve over time, and how they may affect -- or be affected by -- older adults' health and well-being at different points during the course of later adulthood are important questions for future research.

Conclusion

Older adults' efforts to regulate their social relationships involve selective engagement with rewarding interaction partners, as well as efforts to deal with unrewarding or inconsistent interaction partners. Considered together, these complementary processes have an influence on the quality of older adults' social relationships and, in turn, on their physical health and psychological well-being. We proposed several reasons why ambivalent social ties may be more strongly associated with physical health than are problematic social ties and why problematic social ties may be more strongly associated with emotional distress than are ambivalent social ties. More research is needed to tease apart these predicted associations and to investigate how they may be linked with different aspects of interpersonal coping in later life.

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References

- Abbey A, Abramis DJ, Caplan RD. Effects of differential sources of social support and social conflict on emotional well-being. *Basic and Applied Social Psychology*. 1985; 6:111–129.
- Aiken, LS.; West, SG. *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage; 1991.
- Antonucci TC, Akiyama H. Social networks in adult life and a preliminary examination of the convoy model. *Journal of Gerontology*. 1987; 42:519–527.10.1093/geronj/42.5.519 [PubMed: 3624811]
- Barrera M Jr, Stice E. Parent-adolescent conflict in the context of parental support: Alcoholic and nonalcoholic fathers. *Journal of Family Issues*. 1998; 12:195–208.10.1037/0893-3200.12.2.195
- Baumeister RF, Leary MR. The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*. 1995; 117:497–529.10.1037//0033-2909.117.3.497 [PubMed: 7777651]
- Birditt KS, Fingerman KL, Almeida DM. Age differences in exposure and reactions to interpersonal tensions: A daily diary study. *Psychology and Aging*. 2005; 20:330–340.10.1037/0882-7974.20.2.330 [PubMed: 16029096]
- Blanchard-Fields F, Mienaltowski A, Seay RB. Age differences in everyday problem-solving effectiveness: Older adults select more effective strategies for interpersonal problems. *Journals of Gerontology: Psychological Sciences*. 2007; 62:61–64.

- Blieszner, R.; Roberto, KA. Friendship across the life span: Reciprocity in individual and relationship development. In: Lang, F.; Fingerma, KL., editors. *Growing together: Personal relationships across the life span*. New York: Cambridge University Press; 2004. p. 159-182.
- Bloor LE, Uchino BN, Hicks A, Smith TW. Social relationships and physiological function: The effects of recalling social relationships on cardiovascular reactivity. *Annals of Behavioral Medicine*. 2004; 28:29–38.10.1207/s15324796abm2801_5 [PubMed: 15249257]
- Bushman BB, Holt-Lunstad J. Understanding social relationship maintenance among friends: Why we don't end those frustrating friendships. *Journal of Social and Clinical Psychology*. 2009; 28:749–778.10.1521/jscp.2009.28.6.749
- Carlisle M, Uchino BN, Sanbonmatsu DM, Smith TW, Cribbet MR, Birmingham W, et al. Subliminal activation of social ties moderates cardiovascular reactivity during acute stress. *Health Psychology*. 2011 Advance online publication. 10.1037/a0025187
- Carstensen LL, Fung HH, Charles S. Socioemotional selectivity theory and regulation of emotion in the second half of life. *Motivation and Emotion*. 2003; 27:103–123.10.1023/A:1024569803230
- Coats AH, Blanchard-Fields F. Emotion regulation in interpersonal problems: The role of cognitive-emotional complexity, emotion regulation goals, and expressivity. *Psychology and Aging*. 2008; 23(1):39–51.10.1037/0882-7974.23.1.39 [PubMed: 18361653]
- Cohen S. Social relationships and health. *American Psychologist*. 2004; 59:676–684.10.1037/0003-066X.59.8.676 [PubMed: 15554821]
- Compas BE, Banez GA, Malcarne V, Worsham N. Perceived control and coping with stress: A developmental perspective. *Journal of Social Issues*. 1991; 47:23–34.10.1111/j.1540-4560.1991.tb01832.x
- Diener E, Emmons RA. The independence of positive and negative affect. *Journal of Personality and Social Psychology*. 1984; 47:1105–1117.10.1037//0022-3514.47.5.1105 [PubMed: 6520704]
- Dykstra PA. The differential availability of relationships and the provision and effectiveness of support to older adults. *Journal of Social and Personal Relationships*. 1993; 10:355–370.10.1177/0265407593103004
- Fingerman KL. Tight lips?: Aging mothers' and adult daughters' responses to interpersonal tensions in their relationships. *Personal Relationships*. 1998; 5:121–138.10.1111/j.1475-6811.1998.tb00163.x
- Fingerman KL, Hay EL, Birditt KS. The best of ties, the worst of ties: Close, problematic, and ambivalent social relationships. *Journal of Marriage and the Family*. 2004; 66:792–808.10.1111/j.0022-2445.2004.00053.x
- Folkman S, Lazarus RS, Dunkel-Schetter C, DeLongis A, Gruen RJ. Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*. 1986; 50:992–1003.10.1037/0022-3514.50.5.992 [PubMed: 3712234]
- Fung HH, Yeung DY, Li KK, Lang FR. Benefits of negative social exchanges for emotional closeness. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 2009; 64(5):612–621.10.1093/geronb/gbp065
- Holt-Lunstad J, Uchino BN, Smith TW, Olson-Cerny C, Nealey-Moore JB. Social relationships and ambulatory blood pressure: Structural and qualitative predictors of cardiovascular function during everyday social interactions. *Health Psychology*. 2003; 22:388–397.10.1037/0278-6133.22.4.388 [PubMed: 12940395]
- Ingersoll-Dayton B, Morgan D, Antonucci T. The effects of positive and negative social exchanges on aging adults. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 1997; 52(4):S190–S199.10.1093/geronb/52B.4
- Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW. Studies of illness in the aged. The index of ADL: A standardized measure of biological and psychosocial function. *Journal of the American Medical Association*. 1963; 185:914–919. [PubMed: 14044222]
- Krause, N. Social relationships in late life. In: Binstock, RH.; George, LK., editors. *Handbook of aging and the social sciences*. 6. San Diego, CA: Academic Press; 2006. p. 181-200.
- Krause N, Shaw BA. Negative interaction and changes in functional disability during late life. *Journal of Social and Personal Relationships*. 2002; 19:339–359.

- Luong G, Charles ST, Fingerman KL. Better with age: Social relationships across adulthood. *Journal of Social and Personal Relationships*. 2011; 28:9–23.10.1177/0265407510391362 [PubMed: 22389547]
- Major B, Zubek JM, Cooper ML, Cozzarelli C, Richards C. Mixed messages: Implications of social conflict and social support within close relationships for adjustment to a stressful life event. *Journal of Personality and Social Psychology*. 1997; 72:1349–1363.10.1037/0022-3514.72.6.1349 [PubMed: 9177021]
- McCallister L, Fischer CS. A procedure for surveying personal networks. *Sociological Methods and Research*. 1978; 7:131–148.10.1177/004912417800700202
- Miller, SM. Predictability and human stress: Toward a clarification of evidence and theory. In: Berkowitz, L., editor. *Advances in experimental social psychology*. Vol. 14. New York: Academic Press; 1981. p. 203-256.
- Newsom JT, Rook KS, Nishishiba M, Sorkin DH, Mahan TL. Understanding the relative importance of positive and negative social exchanges: Examining specific domains and appraisals. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 2005; 60(6):P304–P312.10.1093/geronb/60.6.P304
- Okun MA, Keith VM. Effects of positive and negative social exchanges with various sources on depressive symptoms in younger and older adults. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 1998; 53(1):P4–P20.10.1093/geronb/53B.1.P4
- Radloff LS. The CES D scale: A self report depression scale for research in the general population. *Applied Psychology and Measurement*. 1977; 1:385–401.10.1177/014662167700100306
- Rahim M, Afzalur M, Nace R. Confirmatory factor analysis of the styles of handling interpersonal conflict: First-order factor model and its invariance across groups. *Journal of Applied Psychology*. 1995; 80:122–132.10.1037//0021-9010.80.1.122 [PubMed: 7706190]
- Rook KS. The negative side of social interaction: Impact on psychological well being. *Journal of Personality and Social Psychology*. 1984; 46:1097–1108.10.1037//0022-3514.46.5.1097 [PubMed: 6737206]
- Rook, KS. Stressful aspects of older adults' social relationships: An overview of current theory and research. In: Stephens, MAP.; Crowther, JH.; Hobfoll, SE.; Tennenbaum, DL., editors. *Stress and coping in later life families*. Washington, DC: Hemisphere; 1990. p. 173-192.
- Salovey P, Rothman AJ, Detweiler JB, Steward WT. Emotional states and physical health. *American Psychologist*. 2000; 55:110–121.10.1037//0003-066X.55.1.110 [PubMed: 11392855]
- Santor DA, Coyne JC. Shortening the CES-D to improve its ability to detect cases of depression. *Psychological Assessment*. 1997; 9:233–243.10.1037//1040-3590.9.3.233
- Sorkin DH, Rook KS. Interpersonal control strivings and vulnerability to negative social exchanges in later life. *Psychology and Aging*. 2004; 19:555–564.10.1037/0882-7974.19.4.555 [PubMed: 15584782]
- Sorkin DH, Rook KS. Dealing with negative social exchanges in later life: Coping responses, goals, and effectiveness. *Psychology and Aging*. 2006; 21:715–725.10.1037/0882-7974.21.4.715 [PubMed: 17201492]
- Suitor JJ, Gilligan M, Pillemer K. Conceptualizing and measuring intergenerational ambivalence in later life. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*. 2011; 66(6):769–781.10.1093/geronb/gbr108
- Uchino BN, Holt-Lunstad J, Smith T, Bloor L. Heterogeneity in social networks: A comparison of different models linking relationship to psychosocial outcomes. *Journal of Social and Clinical Psychology*. 2004; 23:123–139.10.1521/jscp.23.2.123.31014
- Uchino BN, Holt-Lunstad J, Uno D, Flinders JB. Heterogeneity in the social networks of young and older adults: Prediction of mental health and cardiovascular reactivity during acute stress. *Journal of Behavioral Medicine*. 2001; 24:361–382.10.1023/A:1010634902498 [PubMed: 11523333]
- Uchino BN, Cawthon RM, Smith TW, Light KC, McKenzie J, Carlisle M, et al. Social relationships and health: Is feeling positive, negative, or both (ambivalent) about your social ties related to telomeres? *Health Psychology*. 2012 Advance online publication. 10.1037/a0026836

- U. S. Bureau of the Census: Current population survey. America's families and living arrangements: Population characteristics. 2000. Retrieved on September 9, 2003, from <http://www.census.gov/prod/2001pubs/p20-537.pdf>
- van Gaalen RI, Dykstra PA, Komter AE. Where is the exit? Intergenerational ambivalence and relationship quality in high contact ties. *Journal of Aging Studies*. 2010; 24:105–114.10.1016/j.jaging.2008.10.006
- Windsor TD, Butterworth P. Supportive, aversive, ambivalent, and indifferent partner evaluations in midlife and young-old adulthood. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 2010; 65(3):287–295.10.1093/geronb/gbq016
- Winkler M, Filipp SH, Boll T. Positivity in the aged's perceptions of intergenerational relationships: A "stake" or "leniency" effect? *International Journal of Behavioral Development*. 2000; 24:173–182.10.1080/016502500383296
- Zauszniewski JA, Graham GC. Comparison of short scales to measure depressive symptoms in elders with diabetes. *Western Journal of Nursing Research*. 2009; 31:219–234.10.1177/0193945908326065 [PubMed: 19050228]

Table 1

Role Relationships with Social Network Members Classified as Exclusively Positive, Ambivalent, or Exclusively Problematic

Role Relationship	% Positive	% Ambivalent	% Problematic	N
<i>Kin Ties</i>				
Spouse	70.8	25.9	3.3	363
Child	76.6	13.5	9.9	1,352
Sibling	75.8	9.4	14.7	265
Grandchild	73.1	5.8	21.2	208
Other kin	77.5	8.5	14.5	213
In-law	81.0	6.7	12.3	373
<i>Nonkin Ties</i>				
Friend	87.6	6.0	6.4	1,704
Neighbor	86.5	4.5	9.0	266
Acquaintance	67.7	1.5	30.8	65
Co-worker	54.4	5.3	40.4	57
Other nonkin	87.4	3.4	9.2	119

Note. Each row presents the percent of network members within a particular role relationship category who functioned as sources of positive exchanges exclusively, positive and negative exchanges (ambivalent ties), or negative exchanges exclusively. Two role relationship categories that are too small to disaggregate are excluded from the table (parents, $N=21$; home aides, $N=33$).

Table 2

Associations between Functional Health Limitations, Psychological Health, and Positivity versus Negativity of Exclusively Positive, Ambivalent, and Exclusively Problematic Social Network Members

	Functional Health Limitations			Positive Affect			Depressive Symptoms					
	B	SE	t	B	SE	t	B	SE	t			
<i>Covariates</i>												
Age	.02	.00	.27	9.52***	-.01	.00	-.08	2.34** ^a	.02	.02	.03	< 1
Sex (1 =female)	.16	.04	.13	4.31***	.05	.05	.04	1.13	.66	.27	.08	2.40* ^a
Chronic health conditions	.15	.01	.37	12.49***	-.05	.02	-.11	-3.48***	.61	.09	.23	7.16***
<i>Kin Network Members</i>												
Positivity of Exclus. Pos. Kin	.00	.01	.03	< 1	.03	.01	.15	4.57***	-.07	.03	-.07	-2.27* ^a
Positivity of Ambiv. Kin	-.01	.02	-.04	< -1	.04	.02	.10	1.71	-.05	.12	-.02	< 1
Negativity of Ambiv. Kin	.08	.03	.17	3.09**	-.11	.03	-.20	-3.28***	.48	.20	.14	2.43**
Negativity of Exclus. Prob. Kin	.02	.02	.04	1.34	-.07	.02	-.10	-2.90**	.48	.13	.12	3.61***
<i>Nonkin Network Members</i>												
Positivity of Exclus. Pos. Nonkin	-.01	.01	-.06	-2.07* ^b	.02	.01	.09	2.81**	.02	.04	.01	< 1
Positivity of Ambiv. Nonkin	.03	.03	.04	< 1	.05	.04	.07	1.22	-.03	.23	-.01	< -1
Negativity of Ambiv. Nonkin	.00	.04	.00	< 1	-.06	.05	-.07	-1.27	.27	.30	.05	< 1
Negativity of Exclus. Prob. Nonkin	.03	.02	.04	1.29	-.02	.03	-.02	< -1	.45	.16	.09	2.87**

Note. Ns vary from 909 to 911 due to missing data for some variables. Ambiv. = Ambivalent. Exclus. = Exclusively. Pos. = Positive. Prob. = Problematic. The positivity and negativity of the different categories of network members reflect the summed domains of positive exchanges and summed domains of negative exchanges, respectively, engaged in by members of each category. Each panel shows the results of a multiple regression analysis that included the covariates in the first step, the social network variables in the second step, and interactions between age and each social network variable in the third step. After Bonferroni corrections were applied, only one interaction effect (described in the results section) was significant; the models shown accordingly omit the interaction effects. Adjusted R² values in the left, middle, and right panels were .25 ($p < .001$), .07 ($p < .001$), and .11 ($p < .001$), respectively.

^aMarginal with Bonferroni correction.

^bNonsignificant with Bonferroni correction.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3
Coping Responses to Negative Exchanges with Ambivalent versus Problematic Social Network Members

Type of Coping Response	Type of Network Member		t		
	Ambivalent (N= 211)	Problematic (N=186)			
	M	(SD)	M	(SD)	
<u>Conciliatory Coping</u>					
Compromise	1.71	(1.08)	1.47	(1.14)	-2.25 ^{*a}
Forgiveness	2.51	(0.87)	2.21	(1.08)	-3.23 ^{***}
Accepting responsibility	0.77	(1.05)	0.31	(0.76)	-4.91 ^{***}
Yielding to network member	1.12	(1.17)	0.85	(1.15)	-2.26 ^{*a}
<u>Confrontational Coping</u>					
Assertion	1.39	(1.28)	1.48	(1.32)	< 1
<u>Conflict-Avoidant Coping</u>					
Avoidance of network member	0.45	(0.88)	0.92	(1.17)	4.13 ^{***}
Cognitive distancing	1.72	(1.12)	1.60	(1.17)	-1.38
Support seeking	.99	(1.24)	1.39	(1.26)	3.19 ^{**}

Note. Ns = 426 to 445 for these analyses due to missing data for some variables and the exclusion of participants who had not experienced a recent negative social exchange with a network member. Each row reports the results of a multiple regression analysis that included the covariates (not shown: age, sex, number of chronic health conditions) in the first step, network member characteristics (ambivalent vs. problematic, kin vs. nonkin) in the second step, two-way interactions between age and each network member characteristic in the third step, and a three-way interaction between age and both network member characteristics in the fourth step. Bonferroni corrections were applied for multiple comparisons. The results revealed no significant main effects or interaction effects of either age or the network member's kin/nonkin status; the models shown accordingly present main effects for the network member's of ambivalent vs. problematic status. For ease of interpretation, adjusted means and standard deviations for responses to ambivalent vs. problematic network members are shown.

^aMarginal with Bonferroni correction.

* p < .05

** p < .01

*** p < .001

Table 4

Primary Coping Goal in Responding to a Recent Negative Exchange with an Ambivalent versus Problematic Social Network Member

	<u>Kin</u>		<u>Nonkin</u>	
	<u>Ambivalent</u> (<i>N</i> = 168)	<u>Problematic</u> (<i>N</i> = 128)	<u>Ambivalent</u> (<i>N</i> = 55)	<u>Problematic</u> (<i>N</i> = 65)
<u>Primary Coping Goal</u>				
Get Network Member to Change	13.1% ^a	23.4% ^{b, <i>I</i>}	10.9%	20.0%
Preserve Goodwill	66.1% ^a	51.6% ^b	60.0%	58.5%
Reduce Own Distress	20.8% ^a	25.0% ^a	29.1%	21.5%

Note. *N* = 416 for this analysis due to missing data for some variables and the exclusion of participants who had not experienced a recent negative social exchange. Within the left and right panels, values in the same row with different letter superscripts differ significantly. Bonferroni corrections applied for multiple comparisons.

^{*I*}Marginal (*p* < .05) with Bonferroni correction.

Emotional Distress and Perceived Coping Effectiveness in Response to a Recent Negative Exchange with an Ambivalent versus Problematic Social Network Member

Table 5

Reaction	Type of Network Member		M	SD	t
	Ambivalent (N= 211)	Problematic (N=184)			
Level of Emotional Distress	1.07	1.33	1.33	(0.92)	3.35***
Duration of Emotional Distress	1.02	1.45	1.45	(1.14)	4.31***
Perceived Coping Effectiveness	2.27	1.95	1.95	(1.01)	-3.66***

Note. $N_s = 363$ to 444 for this analysis due to missing data for some variables, the exclusion of participants who had not experienced a recent negative social exchange, and the exclusion of participants from the duration of emotional distress analysis who had experienced a recent negative exchange but who reported "not at all" to each of the questions about emotional distress. Each row reports the results of a multiple regression analysis that included the covariates (not shown: age, sex, number of chronic health conditions) in the first step, network member characteristics (ambivalent vs. problematic, kin vs. nonkin) in the second step, and two-way interactions between age and each network member characteristic in the third step, and a three-way interaction between age and both network member characteristics in the fourth step. Bonferroni corrections were applied for multiple comparisons. The results revealed no significant main or interaction effects involving age but two significant effects involving the network member's kin vs. nonkin status (described in the results section) after Bonferroni corrections; the models shown accordingly present main effects for the network member's ambivalent vs. problematic status. For ease of interpretation, means and standard deviations for responses to ambivalent vs. problematic network members are shown.

* $p < .05$

** $p < .01$

*** $p < .001$