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# Understanding the Relative Importance of Positive and Negative Social Exchanges: Examining Specific Domains and Appraisals

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**Negative social exchanges have been more reliably related to psychological health than have positive social exchanges. Little research, however, has sought to understand how underlying appraisal processes link such exchanges to psychological health. This study examined the frequencies of occurrence and appraisals of four parallel domains of positive and negative exchanges in relation to positive well-being and psychological distress in a national sample of 916 older adults. Structural equation analyses revealed that negative exchanges were related both to less well-being and greater psychological distress, whereas positive exchanges were related only to positive well-being. Furthermore, results supported a process in which appraisals mediated the link between social exchanges and psychological health. This social appraisal process helps explain the disproportionate impact of negative exchanges on psychological health.**

OVER the past two decades, research has consistently documented the harmful effects on psychological and physical health of negative aspects of social relationships such as conflict, rejection, criticism, or intrusiveness (Antonucci, Akiyama, & Lansford, 1998; Rook, 1992). A growing body of work has yielded evidence that negative aspects of relationships may be more consequential than positive aspects of relationships for mental health outcomes (for reviews, see Finch, Okun, Pool, & Ruehlman, 1999; Rook, 1998). This pattern of findings was recently confirmed in a short-term longitudinal study of older adults that evaluated measures of positive and negative social exchanges designed to be as comparable as possible (Newsom, Nishishiba, Morgan, & Rook, 2003). The results showed that negative social exchanges were associated with negative affect both cross-sectionally and over a period of 3 months. Positive exchanges, however, exhibited only a cross-sectional association with positive affect; no association with negative affect emerged cross-sectionally or longitudinally. This and other recent studies (e.g., Rook, 2001; Sherman, 2003) have given greater credence to the view that negative exchanges have a disproportionate impact on psychological health. Our goal in the present study was to investigate the reasons for this disproportionate impact to extend our understanding of the processes by which social exchanges may affect mental health in older adults.

## *Negative Social Exchanges as Interpersonal Stressors*

Social exchanges can be conceptualized as interpersonal events or stressors (e.g., Krause & Rook, 2003; Shinn, Lehmann, & Wong, 1984). Accordingly, theory and findings related to the stress process (e.g., Lazarus & Folkman, 1984; Pearlin, 1989) may provide a useful context for understanding why the mental health consequences of negative exchanges frequently exceed those of positive exchanges. Similar asymmetries have been documented in research that has compared

the effects of negative and positive life events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Taylor, 1991). Taylor (1991) summarized this asymmetry by stating, "When the change and disruption of positive and negative life events is equated, negative events are associated with more distress, and they predict depression better than do positive events" (p. 69). Even minor negative life events can have substantial adverse effects on the mental health of older adults (e.g., Zautra, Schultz, & Reich, 2000), a finding that corresponds to the substantial adverse effects found with the rather modest negative social exchanges (e.g., criticisms, demands, and disagreements) examined in most studies (Kowalski, 2003).

Positive life events, in contrast, have largely been abandoned as a focus of investigation by stress researchers, because such events have been found to have little uplifting effect, or in some cases, a detrimental effect (for a review, see Zautra & Reich, 1983). The elusive evidence of beneficial effects of positive life events has parallels in the literature on social support. A surprising number of studies investigating the direct effects of support have found it to be unrelated to psychological health or related to worse, rather than better, psychological health (e.g., LaGaipa, 1990; Lakey, Tardiff, & Drew, 1994; Wortman & Lehman, 1985).

The similarity of findings in the literatures on stress and social exchanges raises the possibility that negative social exchanges have a disproportionate impact on psychological health for similar reasons. Extrapolation from the literature on life stress suggests that an explanation for this disproportionate impact may lie in the underlying processes that link negative social exchanges to psychological distress.

## *The Importance of Appraisals of Social Exchanges*

Key to the understanding of how stressors impact mental and physical health is the appraisal process, in which individuals cognitively evaluate the significance of an event (Lazarus,

1991; Lazarus & Folkman, 1984). Appraisals are thought to mediate the impact of stressors on physical and mental health. Analogously, older adults are likely to weigh social interactions through a similar appraisal process, and investigation of this process may provide useful insights about the asymmetrical effects of positive and negative exchanges.

Appraisals of positive exchanges in the form of satisfaction with social support have been assessed in a number of studies, and this work generally suggests that satisfaction with support is more strongly associated with mental health than is the amount of support received (Barrera, 1986; Sarason, Pierce, & Sarason, 1990). Received support may be more weakly or inconsistently associated with mental health outcomes than is satisfaction with support, because supportive efforts by others may not always be viewed favorably (Clark & Stephens, 1996; Newsom & Schulz, 1998; Smith & Goodnow, 1999). On one hand, receipt of support can trigger feelings of dependency or indebtedness, even when the support is well intentioned and responsive to an existing need. Negative social exchanges, on the other hand, are likely to evoke less ambivalent responses, and, therefore, should be more strongly and consistently related to psychological health. Whereas support satisfaction has been assessed in a number of studies, appraisals of negative social exchanges rarely have been assessed. Comparisons of the appraisal processes for positive and negative exchanges have seldom been undertaken, and they should be particularly fruitful for understanding the disproportionate associations between positive and negative social exchanges and psychological health.

### *Specific Domains of Social Exchanges*

An examination of the appraisal process also provides an opportunity to probe why specific domains of positive and negative interaction may be especially beneficial or harmful. Findings have been inconsistent regarding the relative strength of the association between psychological health and domains of supportive exchanges commonly identified as important in the literature, such as emotional support, instrumental support, and informational support. For example, Oxman and colleagues (Oxman, Berkman, Kasl, Freeman, & Barrett, 1992) concluded that emotional support was more important than instrumental support, but Newsom and Schulz (1996) arrived at the opposite conclusion. Interestingly, these two studies differed in the extent to which they incorporated appraisals of exchanges. Oxman and colleagues included items that tapped the adequacy of support, whereas Newsom and Schulz did not. Consequently, knowing more about how specific domains of social exchanges are appraised may clarify why various types of social interaction are differentially related to psychological health.

Measures of positive social exchanges often have distinguished among different kinds of support, but measures of negative social exchanges have seldom been explicitly multidimensional. We recently developed a multidimensional measure of negative exchanges (involving others' unwanted advice or intrusion, others' unsympathetic or insensitive behavior, and others' failure to provide needed help; Newsom et al., 2003) that corresponds to prominent categories of positive exchanges (informational, emotional, and instrumental support). The present study adds a fourth domain of both positive and negative exchanges: companionship and its negative counterpart, rejection or neglect by others. Companionship and its

counterpart, rejection, have not been included systematically in studies that have sought to compare the effects of positive and negative social exchanges. Companionship, by providing a context for day-to-day enjoyment through pleasurable interaction with others, may make contributions to well-being that are both important and distinct from social support (Felton & Berry, 1992; Rook, 1987). Because of its importance in older adults' daily lives, companionship may be appraised more positively and may exhibit stronger associations with well-being and distress than do other positive exchanges. Similarly, being excluded from companionship (through rejection or neglect) should be a keenly upsetting experience and therefore may exhibit stronger associations with psychological health than do other kinds of negative exchanges.

### *The Current Study*

In summary, our purpose in the current study was to further our understanding of why negative exchanges may be more strongly related to psychological health by examining the appraisal process. We move beyond existing research by including measures that separately assess the frequency of exchanges and the appraisals of those exchanges, and by explicitly modeling the mediating role of appraisals. Furthermore, we examine specific domains of positive and negative social exchanges, and we expect to find evidence that the appraisal process provides at least a partial explanation for the differential implications of these domains for psychological health. These issues are explored in a nationally representative sample of older adults.

## **METHODS**

### *Participants*

Participants for this study are from the first wave of the five-wave Late Life Study of Social Exchanges (LLSSE), a national study of the mental health effects of positive and negative social exchanges. Participants were 916 noninstitutionalized, English-speaking individuals, 65 to 90 years of age, who were cognitively functional and living in the contiguous United States. They were recruited from the Medicare Beneficiary Eligibility List. More information about the sampling frame is available elsewhere (Sorkin & Rook, 2004).

The average age of participants was 74.16 years ( $SD = 6.63$ ); 63% had a high school degree or less education, and 37% percent had vocational training or some college education. The sample was primarily Caucasian (83%); 11% were African American, 5% were Hispanic, and approximately 1% belonged to another racial group (e.g., Asian or Native American). More than three fifths (61.9%) of the sample was female. Study participants closely resemble the older (over the age of 65) U.S. population, based on comparisons with the 2000 census data (U.S. Bureau of the Census, 2000).

### *Measures*

*Demographic characteristics.*—We used standard demographic characteristics such as age, sex (0 = male, 1 = female), and education (1 = less than eighth grade, 9 = completed graduate school or professional training) as covariates in the analyses.

**Health.**—We also controlled self-rated health, physical functioning, and the number of health conditions in the analyses. We measured self-reported health with the commonly used single item, “How would you describe your health at the present time? Would you say it is excellent, very good, good, fair, or poor?,” which ranged from 0 (*poor*) to 4 (*excellent*). We measured physical functioning with 15 items assessing activities of daily living, instrumental activities of daily living, upper extremity strength, and mobility (e.g., Lawton & Brody, 1969). Each item was rated on a 4-point scale of difficulty from 0 (*not at all difficult*) to 3 (*very difficult*). We assessed the number of chronic health conditions by asking participants whether or not they had been diagnosed with any of 13 common conditions (e.g. arthritis or rheumatism, diabetes, stroke, and other).

**Positive and negative social exchanges.**—We designed a measure of positive and negative social exchanges (PANSE) to assess four domains of positive and negative social exchanges that have been found to be important in the literature. The four positive domains were informational support, instrumental support, emotional support, and companionship, and the four parallel negative domains were unwanted advice or intrusion, failure to provide help, unsympathetic or insensitive behavior, and rejection or neglect. These measures, developed through extensive work combining qualitative methods (focus groups, card-sorting tasks) and confirmatory factor analyses (Morgan, 2000; Newsom et al., 2003), were intended to provide a broad assessment of positive and negative social exchanges with parallel content and comparable reliability.

There were 12 items (3 per domain) that assessed the frequency of positive exchanges experienced in the previous month. Participants were first asked to think about the people in their lives (such as their spouses or partners, family members, friends, neighbors, in-laws, or others), and then they were asked a series of questions that began “In the past month, how often did the people you know . . .?” The items can be found in the Appendix. Cronbach’s alpha for the composite measure of positive social exchanges is  $\alpha = 0.90$ .

We assessed parallel negative social exchanges (unwanted advice or intrusion, failure to provided needed help, unsympathetic or insensitive behavior, and rejection or neglect) with 12 items (3 per domain) that asked about the frequency of negative exchanges with a “spouse, family members, friends, neighbors, in-laws or others” in the previous month. The items can be found in the Appendix. Cronbach’s alpha for the negative exchanges scale is  $\alpha = 0.90$ .

**Appraisals of positive and negative exchanges.**—As a way for us to assess appraisals of positive exchanges for the four domains, participants were asked how satisfied they were with each type of exchange. A rating for each domain of exchanges (e.g., “In general, how satisfied are you with the advice and information that you receive?”) was made on a 4-point scale ranging from 0 (*not at all satisfied*) to 3 (*very satisfied*) if the participant reported having experienced one or more positive exchanges in that domain. We used an average of satisfaction items across the domains in all analyses. Cronbach’s alpha for the four-item positive exchange appraisal measure is  $\alpha = 0.68$  in this sample.

In a parallel fashion, participants were asked how bothered they were by each of the four kinds of negative exchanges. Four questions, such as “In general, how bothered are you when you receive unwanted advice or opinions?” were each rated on a 4-point response scale ranging from 0 (*not at all bothered*) to 3 (*very bothered*). We used an average of bothersomeness ratings across the domains in all analyses. Cronbach’s alpha for the four-item negative exchange appraisal measure is  $\alpha = 0.75$  in this sample.

**Psychological health.**—We included measures of two dimensions of psychological health. We assessed psychological distress with a nine-item version of the Center for Epidemiologic Studies–Depression scale (CES-D; Radloff, 1977) developed by Santor and Coyne (1997). We removed two items related to positive affect (e.g., “You were happy”) to avoid overlap with the measure of psychological well-being (described in the paragraphs that follow). Cronbach’s alpha for the resulting seven-item measure of depressive symptomatology is  $\alpha = 0.81$  in this sample.

We assessed positive well-being with a six-item measure, composed of an overall rating of a life-satisfaction item and five positive affect items, developed by Diener and Emmons (1984, Studies 3 through 5). Participants responded to the life-satisfaction question, “All things considered, how satisfied are you with your life these days?” on a scale ranging from 0 (*not at all satisfied*) to 3 (*very satisfied*). The remaining items asked participants to rate the extent to which five adjectives (happy, joyful, pleased, enjoying myself, satisfied) described their feelings over the past month, with ratings made on a 5-point scale ranging from 0 (*very slightly or not at all*) to 4 (*very much*). Cronbach’s alpha for these items is  $\alpha = 0.87$  in this sample.

### Overview of Analyses

We tested structural equation models by using Mplus, version 3.11 (Muthen & Muthen, 1998–2004). Because of concerns about multivariate nonnormality, we used maximum likelihood with Satorra–Bentler corrections for chi-square and standard errors (Satorra & Bentler, 1994). Because chi-square is usually significant with large samples, such as the size of the sample in this study, we examined several alternative fit indices to determine if the model had acceptable fit by use of criteria recently proposed by Hu and Bentler (1999). With the use of these criteria, models with incremental fit values (e.g., Bollen’s Incremental Fit Index, or IFI; see Bollen, 1989) equal to or greater than .95 and a standardized root mean residual value (SRMR; see Bentler, 1995) less than or equal to .08 are considered good.

Prior to the structural model tests presented in the paragraphs that follow, we tested confirmatory factor models for all measures to verify the quality of the latent variables; all models had high loadings and fit the data well (these analyses are available from J. Newsom upon request).

## RESULTS

### Descriptive Analyses

Table 1 reports basic descriptive information about the frequency and appraisals of positive and negative social

Table 1. Frequency of Social Exchanges in Four Domains

Exchanges	% Reporting 1 or More	Frequency Rating <i>M</i> ( <i>SD</i> )	Appraisals <i>M</i> ( <i>SD</i> )
<b>Positive</b>			
Informational support	79.09	1.89 (1.26)	2.38 (.66)
Instrumental support	84.33	2.31 (1.31)	2.76 (.49)
Emotional support	91.33	2.57 (1.09)	2.70 (.54)
Companionship	91.27	2.67 (1.14)	2.77 (.47)
<b>Negative</b>			
Unwanted advice	42.81	.56 (.81)	1.38 (.93)
Failure to provide help	25.93	.36 (.70)	1.62 (.85)
Unsympathetic behavior	32.62	.42 (.73)	1.66 (.87)
Rejection or neglect	24.44	.34 (.71)	1.34 (.90)

Notes: Mean frequency of experiencing each kind of social exchange (0 = never to 4 = very often) was based on the entire sample. Mean appraisal ratings for each social exchange domain (0 = not at all satisfied or bothered to 3 = very satisfied or bothered) were based on the subset of participants who reported having experienced at least some of the exchanges assessed in that domain.

exchanges. Positive social exchanges were far more common than were negative social exchanges, with 79% to 91% of participants reporting 1 or more of the 12 positive social exchanges. Only 24% to 43% of participants reported 1 or more of the 12 negative social exchanges. Similarly, the mean frequencies indicated that, on average, positive exchanges occurred at least five times as often as negative exchanges. Also shown are the mean appraisal ratings for each of the domains of positive (satisfaction) and negative (bothered) exchanges for those participants who reported having experienced at least some of the exchanges assessed in that domain.

*Overall Frequency of Positive and Negative Social Exchanges*

We used a structural equation model to test the independent associations between the frequency of positive and negative social exchanges and both psychological distress and well-being. The model included age, gender, education, self-reported health, physical functioning, and chronic health conditions as covariates. We estimated correlated disturbances between parallel domains of the second-order factors of positive and negative social exchanges (e.g., emotional support with others' unsympathetic or insensitive behavior) in the model. Complete

data on all variables are required for structural equation modeling unless a missing data estimation procedure is used. For this analysis, the sample size was 707 as a result of missing data on one or more of the variables in the model. The model had a good fit to the data, SRMR = .054, IFI = .955, although the chi-square was significant at  $\chi^2(807, n = 707) = 1367.911, p < .001$ . Overall, the predictors accounted for approximately 40% of the variance in distress ( $R^2 = .385$ ) and approximately 20% of the variance in well-being ( $R^2 = .196$ ). Path coefficients are presented in Table 2. Positive exchanges were significantly related to well-being ( $b = .159, SE = .035, \beta = .212, p < .001$ ) but were not related to distress ( $b = .004, SE = .071, \beta = .006, ns$ ). Negative exchanges, however, were related to both well-being ( $b = -.242, SE = .05, \beta = -.249$ ) and distress ( $b = .309, SE = .055, \beta = .349, p < .001$ ). Positive and negative social exchanges were marginally significantly correlated with one another ( $\psi_{cov} = .037, SE = .020, \psi_{corr} = .078, p < .10$ ), indicating that participants who reported more frequent positive exchanges had a slight tendency to report more frequent negative exchanges.

*Overall Appraisals of Positive and Negative Social Exchanges*

We used a subsequent structural model, depicted in Figure 1, for two goals. One of our goals was to investigate the relative strength of the relationship of appraisals of positive and negative exchanges to mental health outcomes after we controlled for the frequency of positive and negative exchanges. Our second goal was to test the hypothesis that appraisals mediate the relationship between the frequency of social exchanges and psychological health. To investigate these hypotheses, we found it necessary to restrict the sample to those participants who reported at least one positive and at least one negative exchange. As in the previous model, this model included age, gender, education self-rated health, chronic health conditions, and physical functioning as predictors of appraisals of positive and negative exchanges as well as predictors of distress and well-being. Ellipses in the figure represent latent variables, whereas the rectangles represents mean scores of positive and negative appraisal ratings. Although the model had a significant chi-square value,  $\chi^2(873, n = 426) = 1210.771$ , other fit indices indicated acceptable fit, IFI = .950, SRMR = .060.

Table 2. Direct Effects of Positive and Negative Exchanges on Distress and Well-Being, Structural Model Results

Predictor	Distress			Well-Being		
	Unstandardized Coefficient	SE	Standardized Coefficient	Unstandardized Coefficient	SE	Standardized Coefficient
Age	-.003	.003	-.043	-.003	.003	-.034
Gender	.024	.041	.022	.034	.043	.028
Education	-.011	.011	-.039	-.014	.011	-.045
Self-rated health	-.088	.023	-.184***	.096	.026	.183***
Health conditions	.007	.014	.021	.016	.016	.041
ADLs and IADLs	.274	.046	.308***	-.181	.047	-.185***
Positive exchanges	.004	.031	.006	.159	.035	.212***
Negative exchanges	.309	.055	.349***	-.242	.05	-.249***

Notes: ADLs = activities of daily living; IADLs = instrumental ADLs; SRMR = standardized root mean residual value; IFI = Bollen's Incremental Fit Index. Model fit:  $N = 707, \chi^2(807) = 1,367.911, p < .001, SRMR = .054, IFI = .955$ . Correlated measurement errors between parallel dimensions were estimated in this model.

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

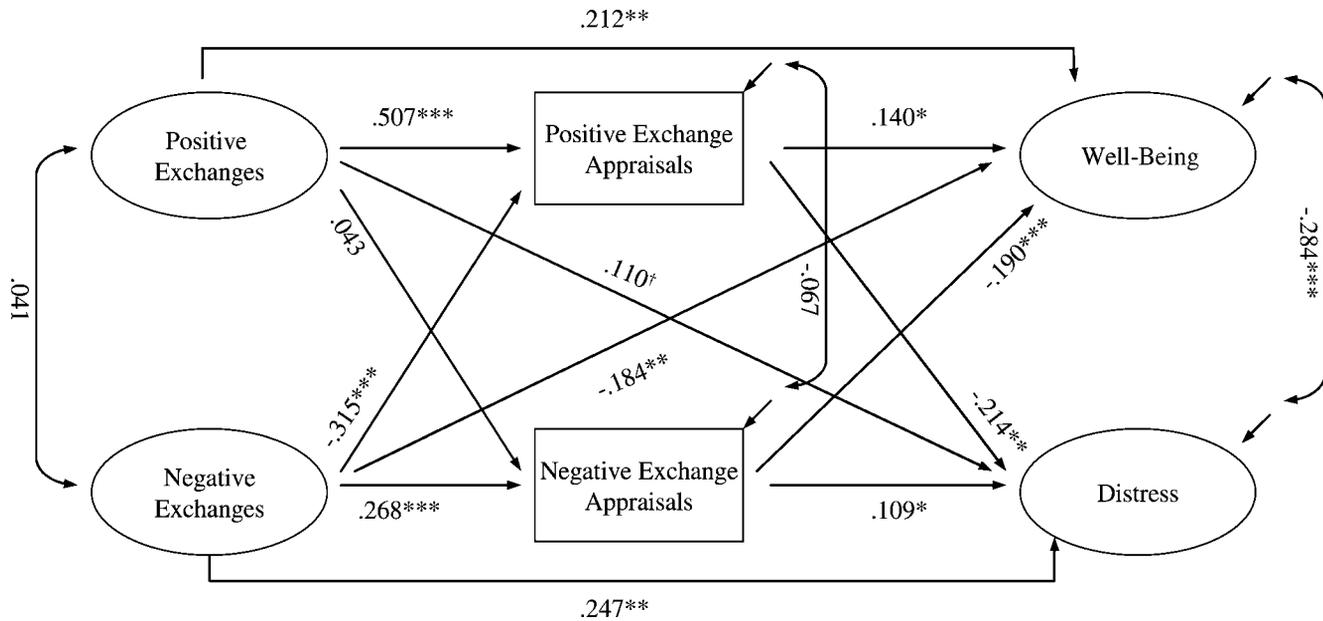


Figure 1. Mediation model for appraisals of positive and negative exchanges on depression and well-being:  $\chi^2(873, n = 426) = 1210.771, p = .000, SRMR = .060, IFI = .950; *p < .05, **p < .01, ***p < .001, †p < .10$ . We included age, gender, education, self-reported health, physical functioning, and chronic health conditions as covariates in prediction of positive well-being, psychological distress, and appraisals.

Model results indicated that appraisals of negative exchanges were significantly related to well-being ( $b = -.150, SE = .038, \beta = -.190, p < .01$ ) and distress ( $b = .069, SE = .031, \beta = .109, p < .05$ ). Appraisals of positive exchanges were significantly related to well-being ( $b = .213, SE = .093, \beta = .140, p < .05$ ) and, in contrast to the results for the frequency of positive exchanges, they also were significantly related to psychological distress ( $b = -.262, SE = .084, \beta = -.214, p < .001$ ). Tests of indirect effects (not shown) supported the hypothesis that appraisals of positive exchanges mediated the effects of positive exchanges on both well-being ( $b = .085, SE = .037, \beta = .071, p < .01$ ) and distress ( $b = -.105, SE = .039, \beta = -.108, p < .05$ ). Similarly, indirect tests of negative exchanges on well-being ( $b = -.064, SE = .022, \beta = -.051, p < .01$ ) and distress ( $b = .030, SE = .015, \beta = .029, p < .05$ ) supported the

hypothesis that appraisals of negative exchanges mediated this relationship as well. Because the direct effects of positive and negative exchanges remained significant after we controlled for the appraisal variables for all pathways except one, the significant indirect coefficients appear to be consistent only with a partial mediation model. The exception was a marginally significant direct effect of positive exchanges on distress ( $b = .107, SE = .065, \beta = .110, p < .10$ ).

*Specific Domains of Social Exchanges*

Table 3 presents the interfactor correlations among the specific domains of social exchanges, appraisals of positive and negative exchanges, distress, and well-being for those who reported at least one positive and at least one negative social exchange. The domains of exchanges most strongly associated

Table 3. Correlations Among Latent Variables (N = 427)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Informational support												
2. Instrumental support	.354***											
3. Emotional support	.491***	.526***										
4. Companionship	.245***	.298***	.460***									
5. Unwanted advice	.294***	.137**	.109†	.042								
6. Failure to provide help	.121*	.049	-.055	-.117†	.407***							
7. Unsympathetic behavior	.102*	.056	-.020	-.034	.545***	.559***						
8. Rejection or neglect	.076	.107*	-.046	-.139**	.346*	.535**	.488**					
9. PE appraisals <sup>b</sup>	.122	.268***	.446***	.356***	-.154**	-.234***	-.287**	-.205***				
10. NE appraisals <sup>b</sup>	.058	.133**	.046	.000	.108**	.242***	.314***	.102*	-.134**			
11. Well-being	.016	.110*	.234***	.296***	-.186***	-.224***	-.239***	-.210***	.349***	-.243***		
12. Distress	.266***	-.115*	.070	-.218***	.307***	.379***	.351***	.325***	-.283***	.262***	-.566***	
Mean	1.985	2.578	3.003	2.819	1.016	.619	.686	.472	2.556	1.453	3.076	.635
Variance	.961	1.285	.702	.995	.707	.664	.567	.474	.172	.641	.401	.199

Notes: PE = positive exchange; NE = negative exchange. For the table, N = 427. Both PE and NE appraisals were observed variables. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ ; † $p < .10$ .

Table 4. Appraisal Mediation Model for Specific Domains of Positive Exchanges (*N* = 700)

Predictors	Appraisals		Distress		Well-Being	
	Direct	Indirect	Direct	Indirect	Direct	Indirect
Age	.120***	-.079*			-.015	
Gender	.019	.061			.000	
Education	-.066†	-.021			-.052	
Self-rated health	.002	-.162***			.173***	
Physical functioning	-.112*	.296***			-.151**	
Chronic health conditions	.012	.062			.031	
Informational	-.074†	.218***	.020		-.031	-.019†
Instrumental	.121**	.023	-.032*		-.007	.031*
Emotional	.203***	.099†	-.054**		.031	.052***
Companionship	.214***	-.174***	-.057***		.165***	.055***
Appraisals		-.265***			.256***	

\**p* < .05; \*\**p* < .01; \*\*\**p* < .001; †*p* < .10.

Table 5. Appraisal Mediation Model for Specific Domains of Negative Exchanges (*N* = 469)

Predictors	Appraisals		Distress		Well-Being	
	Direct	Indirect	Direct	Indirect	Direct	Indirect
Age	-.214**		-.021		-.067	
Gender	.188***		.018		.064	
Education	.019		-.065		-.065	
Self-rated health	-.011		-.205**		.306***	
Physical functioning	.070		.297***		-.022	
Chronic health conditions	-.025		.036		.080	
Unwanted advice	-.061		.073	-.008	-.054	.013
Failure to provide help	.143*		.110	.020†	-.021	-.031*
Unsympathetic behavior	.281***		.164*	.038*	-.113	-.060**
Rejection or neglect	-.114*		.023	-.016	-.093	.025†
Appraisals			.136**		-.215***	

\**p* < .05; \*\**p* < .01; \*\*\**p* < .001; †*p* < .10.

with psychological health were also the most strongly associated with appraisals, suggesting that differences in the importance of certain domains for mental health may be a function of how favorably or unfavorably they tend to be viewed. Thus, our next step was to investigate this hypothesis by examining mediational models that posit that the impact of each specific domain is mediated by appraisals. Tables 4 and 5 present these results for specific domains of positive exchanges and negative exchanges, respectively. The indirect path coefficients are estimates of the extent to which each domain is related to distress or well-being outcomes through its effects on appraisals.

Results for positive exchange domains (Table 4) provided general support for the hypothesis that most kinds of positive exchanges affect psychological health by means of appraisal of the exchanges. All but one of the indirect path coefficients were significant or marginally significant (informational support to distress,  $\beta_{\text{indirect}} = .020, ns$ ), and four of the eight direct effect path coefficients were significant or marginally significant (companionship to well-being,  $\beta = .165, p < .001$ ; informational support to distress,  $\beta = .218, p < .001$ ; emotional support to distress,  $\beta = .099, p < .10$ ; companionship to distress,  $\beta = -.174, p < .001$ ). Note that the significant relationship between informational support and distress indicated that more frequent exchanges of this type were associated with greater distress.

Results from the negative exchange domains (Table 5) corroborate the appraisal mediation hypothesis, although in a more limited manner. There was evidence for indirect effects for failure to provide help and unsympathetic behavior for well-being ( $\beta_{\text{indirect}} = -.031, p < .05$  and  $\beta_{\text{indirect}} = -.060, p < .01$ , respectively) and distress ( $\beta_{\text{indirect}} = -.020, p < .10$  and  $\beta_{\text{indirect}} = .038, p < .05$ , respectively), and the indirect effect of rejection or neglect to well-being was marginally significant ( $\beta_{\text{indirect}} = .025, p < .10$ ). The direct path from unsympathetic behavior to distress remained significant,  $\beta = .164, p < .05$ , supporting only partial mediation for this domain. These findings parallel the correlations shown in Table 3, in which the domains of negative social exchanges that had the weakest correlations with distress and well-being did not have significant indirect effects.

In addition to the models presented in Tables 4 and 5, we used an alternative approach to the mediational analyses that involved separate indirect effects tests in which each domain-specific appraisal question served as the mediator between the frequency of exchanges for the corresponding domain and the

distress and well-being outcomes. Because the domain-specific appraisal questions were not asked unless some exchanges for the associated domain were reported, substantially fewer cases were available and it was impractical for us to control for other domains of exchanges. Of the 16 indirect effects tested, all but a few of the findings were consistent with those we obtained by using the average appraisal measures. The indirect effect for unsympathetic behavior, which was significant for distress and well-being in the previous analysis, was only marginally significant for distress ( $\beta_{\text{indirect}} = .025, p < .10$ ) and was nonsignificant for well-being ( $\beta_{\text{indirect}} = -.010, ns$ ). The indirect effect for failure to provide help, which was significant for both outcomes in the analyses using average appraisal ratings, was not significant for distress ( $\beta_{\text{indirect}} = .009, ns$ ) or well-being ( $\beta_{\text{indirect}} = -.028, ns$ ). Because these results were based on substantially smaller sample sizes than the analyses using the average appraisal ratings (i.e.,  $n = 295$  and  $n = 258$ ), it is possible that there was insufficient power to detect these effects.

**DISCUSSION**

Our goal in this study was to gain a better understanding of why negative social exchanges may have a greater impact on older adults' psychological health than positive exchanges. Our findings replicate and extend our recent work (Newsom et al., 2003) and expand on a variety of other studies that document a negativity effect, in which the harmful effects of negative exchanges outweigh the beneficial effects of positive exchanges (for reviews, see Finch et al., 1999; Rook, 1998). The present study moves beyond the existing literature, however, by investigating the underlying processes that may link social exchanges and psychological health.

Our findings provide initial support for a stress-process model of social exchanges that mirrors prominent theoretical models of the pathways by which stressful life events affect psychological health (e.g., Lazarus & Folkman, 1984). Overall, results from mediational model tests were consistent with an analogous process in which older adults' appraisals of their interactions with family and friends play an important role in whether psychological health will be impacted by social exchanges. The frequency of positive exchanges was unrelated to psychological distress and was less strongly associated with

psychological well-being than was the frequency of negative exchanges. To the extent that positive exchanges were appraised as satisfying, however, they were associated with greater well-being and lower psychological distress. Measures of the amount of support received, therefore, may be more weakly related to psychological health because they do not filter out neutral or negative reactions to supportive attempts by network members. Assessments of appraisals, in contrast, distill the pleasing or satisfying aspects of positive exchanges. The social exchange appraisal process, accordingly, provides an explanation for the negativity effect, because the disproportionate association of negative exchanges with psychological health is largely eliminated if subjective appraisals of positive exchanges are considered.

These conclusions warrant elaboration, however, because it is necessary to examine how specific types of social exchanges are appraised and how they are related to psychological health. Our in-depth analyses suggested that the relationship of social exchanges to psychological health is complex. The most potent negative exchanges appeared to be those in the emotional domain, involving actions such as expressions of anger or criticism by others. Such expressions may be symptoms of relationships that have deteriorated to the point where demonstrative negative expressions erupt. These interactions would be most harmful to an individual's well-being because they signify more severe interpersonal problems. In addition, criticism and other emotionally hurtful behavior may be most likely to occur in close relationships, such as those with spouse and family members (Akiyama, Antonucci, Takahashi, & Langfahl, 2003; Fingerman, Hays, & Birditt, 2004), and this may serve to amplify the adverse impact of such exchanges.

Among positive social exchanges, companionship was most strongly associated with psychological health, predicting both greater well-being and less distress. The evidence of the distinctive importance of companionship in the current study converges with other studies that have documented independent contributions of companionship to health and well-being (e.g., Bolger & Eckenrode, 1991; Buunk, 1990; Rook, 1987; Thompson, Futterman, Gallagher-Thompson, Rose, & Lovett, 1993). Studies of social support typically emphasize help-related exchanges undertaken for instrumental purposes (such as providing emotional comfort or tangible assistance in times of need), yet people seek social bonds for the intrinsic satisfactions they afford, such as shared leisure, humor, and other forms of pleasurable interaction (Weiss, 1974). The regulation of affect, including the production of positive affect, represents a central motive for social interaction, and one that may become particularly salient in later life (Carstensen, Fung, & Charles, 2003).

Other studies have investigated the association between particular kinds of social interactions and psychological health among older adults (e.g., Newsom & Schulz, 1996; Oxman et al., 1992), but these studies generally have not examined how older adults appraise various kinds of social interactions. Results from our mediational analyses linking appraisals of these specific categories of social exchange to psychological health may be informative about why certain domains of social exchanges are more highly correlated with psychological health. In general, the positive and negative exchanges that were most strongly related to distress and well-being reflected

domains that were most favorably or unfavorably appraised. Among positive exchanges, only informational support was not significantly related to appraisals, although it was related to greater psychological distress. This pattern of results suggests the possibility that individuals who are experiencing more emotional difficulties seek more advice from others (Coyne & Bolger, 1990). Longitudinal analyses are necessary to explore this hypothesis, however. Among negative exchanges, others' failure to provide help and others' unsympathetic behavior were the types of exchanges evaluated most negatively, and these were the only two domains indirectly related to distress and well-being through appraisals. Such findings may highlight potential areas of vulnerability for older adults because of their greater reliance on others for material assistance and because thwarted desires for selective engagement with gratifying interaction partners may increase their sensitivity to criticism (Carstensen et al., 2003).

### *Limitations and Conclusion*

The possibility that older adults experiencing more depressive symptomatology may have reported more negative exchanges or elicited more positive exchanges is a recurring concern in the literature and a potential limitation of this study. Although some longitudinal studies have suggested that prior depression and current emotions have minimal effects on the reporting of social exchanges (Krause, Liang, & Yatomi, 1989; Vinokur, Schulz, & Caplan, 1987), additional work is needed to understand the potentially complex relationships between depression and social exchanges that may exist over time. Of special importance will be investigations into whether these relationships vary across the different domains of social exchanges.

It is also possible that our measures of positive and negative social exchanges were not optimally balanced, even though we made an effort to assess four parallel domains of positive and negative interaction, using an identical time frame, and using items written to be as comparable as possible in their extremity. Distinguishing between true negativity effects and asymmetrical positive and negative stimuli has been a point of long-standing controversy in other areas of research, such as person perception (Kanouse & Hanson, 1972). Nonetheless, even in studies that have used independent raters to balance trait adjectives for such characteristics as frequency and extremity, negativity effects still often emerge (Anderson, 1966). In view of this work, and given the convergence of our findings with those of many previous studies that have used different measures of positive and negative social exchanges, we think it is unlikely that unbalanced positive and negative items accounted for our findings.

We did not examine the source of the exchanges, the number of network members involved, or the closeness of the relationships with the individuals involved (Fingerman & Birditt, 2003), and further investigation of these aspects of relationships may provide a more complete understanding of the effects of positive and negative social exchanges. In addition, participants reported the frequency of exchanges over a 1-month period, and some important exchanges that occur infrequently, yet have powerful effects, may have been omitted. We believe that this period of time is not only appropriate for capturing a reasonable number of positive and negative exchanges but also corresponds to time frames commonly used in mental health studies. However, assessments of exchanges on a more micro (e.g.,

a daily basis) or macro (e.g., annual basis) scale warrant investigation in future research. Our approach to measuring appraisals, which focused on ratings of the quality of the supportive or unsupportive exchanges, was an attempt to extend the commonly used satisfaction ratings found in the social support literature, but alternative approaches to assessing appraisals, such as satisfaction with network members (see, e.g., Fiore, Becker, & Coppel, 1983), may be equally valid and informative. We believe that the measurement strategy in this study represents an important step forward because it permitted investigation of the independent effects of the frequency versus appraisal of exchanges.

The results from this study provide further evidence that negative exchanges are more strongly related to depression than are positive exchanges, but with an important caveat: This asymmetry is muted when older adults' appraisals of social exchanges are considered. Ultimately, a complete understanding of how social exchanges impact well-being and distress among older adults will require a theoretical framework that considers the specific cognitive and emotional processes involved in appraising social interactions.

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## Appendix

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In the past month, how often did the people you know ...

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### Positive social exchanges

#### (Informational support)

1. ... offer helpful advice when you needed to make important decisions?
2. ... make useful suggestions?
3. ... suggest ways that you could deal with problems you were having?

#### (Instrumental support)

4. ... do favors and other things for you?
5. ... provide you with aid and assistance?
6. ... help you with an important task or something that you could not do on your own?

#### (Emotional support)

7. ... do or say things that were kind or considerate toward you?
8. ... cheer you up or help you feel better?
9. ... [In the past month] how often did you discuss personal matters or concerns with someone you know?

#### (Companionship)

10. ... provide you with good company and companionship?
11. ... include you in things they were doing?
12. ... do social or recreational activities with you?

### Negative social exchanges

#### (Unwanted advice or intrusion)

13. ... give you unwanted advice?
14. ... question or doubt your decisions?
15. ... interfere or meddle in your personal matters?

#### (Failure to provide help)

16. ... let you down when you needed help?
17. ... ask you for too much help?
18. ... fail to give you assistance that you were counting on?

#### (Unsympathetic or insensitive behavior)

19. ... leave you out of activities you would have enjoyed?
20. ... forget or ignore you?
21. ... fail to spend enough time with you?

#### (Rejection or neglect)

22. ... do things that were thoughtless or inconsiderate?
  23. ... act angry or upset with you?
  24. ... act unsympathetic or critical about your personal concerns?
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