



Social Negativity and Health: Conceptual and Measurement Issues

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Abstract

The goal of this review paper is to identify conceptual and measurement issues in the study of social negativity and health in order to foster development of research on this important topic. We begin by discussing how the negative side of social ties has been conceptualized and by identifying features of the underlying construct. Next, we review selected evidence on the effects of social negativity on physiology, self-reported health, morbidity, and mortality. We end by highlighting unresolved questions and presenting recommendations for how the field should move forward.

Over the past 30 years, there has been tremendous interest in the link between social ties and physical health, and the consensus emerging from several lines of evidence is that the structure and quality of social relations predicts morbidity and mortality (for reviews, see Cohen, 2004; House, Landis, & Umberson, 1988; Uchino, 2004). Large prospective studies demonstrate that individuals who are more socially integrated have lower mortality rates over time, controlling for baseline health status (for review, see Holt-Lunstad, Smith, & Layton, 2010). Studies like these have established a link between structural aspects of relationships and health, but there is also evidence that the *quality* of social relationships predicts health outcomes. Individuals who report more positive social functioning, as evidenced by higher perceptions of available social support and higher ratings of marital satisfaction, show better physical health outcomes (for reviews, see Robles & Kiecolt-Glaser, 2003; Uchino, 2009).

These findings have led to the widespread recognition that social support promotes health and well-being, and imply that the mere presence of social ties confers absolute benefit for mental and physical health. However, as has been long noted in the literature, others can be a source of conflict, insensitivity, and interference, which we refer to collectively as *social negativity*. Researchers have highlighted the need to attend to this more negative side of social ties together with the positive side in order to gain a more complete picture of how social ties influence well-being (Rook, 1984). The goal of this paper is to review and identify current conceptual and measurement issues in the study of social negativity that are of particular relevance for researchers studying the effects of social relationships on physiological and health outcomes. We begin by discussing how the negative side of social ties has been conceptualized and by identifying themes in this work. Next, we review selected evidence on the effects of social negativity on physical health outcomes. We end by highlighting unresolved questions in this area and we present recommendations for how the field can move forward.

Conceptualizing the Negative Side of Social Relationships

Researchers across a variety of disciplines have long recognized that close relationships inherently involve conflict, miscommunication, and other negative processes (Canary, Cupach, & Messman, 1995; Gottman, 1994; Kelley et al., 1983; Pietromonaco, Greenwood, & Barrett, 2004; Sillars, 2009; Spitzberg & Cupach, 1998). By virtue of the fact that individuals have their own preferences, needs, goals, and motives, when two individuals are involved in a relationship their agendas will not always align. Indeed, with greater interdependence there is greater potential for interpersonal conflict. Although unpleasant, the occurrence of negative interactions does not indicate that a relationship is in jeopardy. Negative interactions can present opportunities for personal and relational growth, as successful resolution of conflict can increase intimacy and build trust (Canary & Cupach, 1988; Fincham & Beach, 1999). However, if negative interactions occur frequently or are not resolved constructively, they can be detrimental to the relationship and to the individuals involved (Gottman, 1994).

Research on negativity in social relationships began receiving increased attention in the 1980s, with the publication of Karen Rook's seminal paper on *problematic social ties* (1984). Rook argued that social relationships are not uniformly positive, and that negative social experiences may have greater impact than positive experiences, creating a *negativity effect*. This position drew from social exchange theory, which emphasized the dual nature of social ties (Homans, 1974; Thibaut & Kelley, 1959) and from evidence at the time that negative information is weighed more heavily than positive information (Hamilton & Zanna, 1972; Richey, McClelland, & Shimkunas, 1967).

Since then, dozens of terms have been used to describe the negative components of social interaction, often interchangeably and without explicit definition. A summary of commonly used constructs from this literature is provided in Table 1. The majority of these terms have emerged from what can broadly be considered the social support literature, although the negative aspects of social relationships have been studied in other literatures as well, such as clinical and relationship science. There is a relatively large literature on conflict in laboratory settings, much of which has been conducted with married couples, but this literature is beyond the scope of this review and is reviewed elsewhere (Wright & Loving, 2011).

Despite differences in terminology, the interpersonal constructs presented in Table 1 seem to refer to similar underlying phenomena, which we refer to in total as *social negativity*. Social negativity involves *behaviors which are directed at the recipient and are perceived as aversive or unwanted*, and does not simply refer to the presence of negative feelings about another person.

We propose that social negativity is a multidimensional construct composed of three distinguishable but overlapping aspects. A description of these proposed dimensions with prototypical items is presented in Table 2. The first proposed dimension is *conflict*, defined as behaviors which provoke conflict, particularly those involving the expression of anger such as 'yelled at me', 'lost his/her temper with me', and 'argued with me'. The second dimension is *insensitivity*, and involves behaviors which convey disregard for an individual's needs or wishes such as 'acted unsympathetic to my personal concerns' and 'took advantage of me'. The third proposed dimension is *interference*, defined as behaviors which interfere with an individual's ability to pursue goals such as 'invaded my privacy', 'interfered in my personal matters', and 'made too many demands'. The dimensions described here reflect our attempt to synthesize broadly across the literature, but there is still debate

Table 1 Commonly used social negativity constructs

Construct	Author(s)	Description	Measurement and sample items
<i>General level</i>			
Problematic social ties	Rook (1984)	Exchanges involving "disputes, embarrassment, envy, invasion of privacy, or other negative outcomes" (p. 1097)	Participants name others who are a source of problems, e.g., "having one's privacy invaded; being taken advantage of; consistently provoked conflicts or feelings of anger"
Social conflict	Abbey et al. (1985)	"...potentially negative aspects of relations, such as expressions of negative affect and disconfirmation" (p. 114)	"In the last 7 days, how much has [target]...argued with you about something; got on your nerves; misunderstood the way you thought and felt about things?"
	Lepore (1992)	"...personal rejection, excessive demands, and actions that are perceived as offensive" (p. 857)	"Indicate how often in the prior week you...fought with [target]; were upset with [target]; had a disagreement with [target]; got so angry you threw things"
Negative social exchanges	Ruehlman and Karoly (1991)	"...affectively unpleasant, resistive, conflictual, hostile, or hurtful transactions" (p. 97)	Participants rate how often over the previous month the people in their lives, "yelled at me; invaded my privacy; took advantage of me; made fun of me"
	Newsom, Nishishiba, Morgan, and Rook (2003); Newsom, Rook, Nishishiba, Sorkin, and Mahan (2005)	"...conflict, rejection, criticism, or intrusiveness" (2003, p. 78)	"In the past month, how often did the people you know...give you unwanted advice; let you down when you needed help; forget or ignore you; act upset or angry with you?" (2005)
Social undermining	Vinokur and Van Ryn (1993)	"...behaviors directed toward the target person that display negative affect (anger or dislike), negative evaluations of the person in terms of his or her attributes, actions, and efforts (criticism), behaviors that make it difficult or hinder the attainment of instrumental goals" (p. 350)	"How much does [target]...act in an unpleasant or angry manner toward you; make your life difficult; show he or she dislikes you; makes you feel unwanted; criticize you?"

Table 1 (Continued)

Construct	Author(s)	Description	Measurement and sample items
Negative social interactions	Schuster, Kessler, and Aseltine (1990)	" ...stressful obligations for reciprocity or... [exposure] to disappointments, conflicts, tensions, and unpleasantness" (p. 424)	"How often does [target]... make too many demands on you; criticize you; create tensions or arguments with you?"
<i>Stressor-specific</i>	Antonucci et al. (1998)	" ...negative feelings about overall networks" (p. 381)	"How many people in your network...don't understand you; make too many demands on you; get on your nerves"
Social hindrance	Ruehlman and Wolchick (1988)	" ...the presence of negative, potentially hurtful interactions or relationships" (p. 294)	Participants select specific close others and rate extent to which they "gave misleading advice or information; made me feel worse when I felt discouraged"
Social constraints on disclosure	Lepore, Silver, Wortman, and Waymott (1996); Lepore and Revenson (2007)	" ...objective social conditions and individuals' construal of those conditions that lead individuals to refrain from or modify their disclosure of stress- and trauma-related thoughts, feelings, or concerns" (2007, p. 313)	"How often did you feel as though you had to keep your feelings about [trauma] to yourself because they made [target] uncomfortable?" (1996)
Stressor-specific unsupportive social interactions	Ingram, Betz, Mindes, Schmitt, and Smith (2001)	" ...unsupportive or upsetting responses that an individual receives from other people concerning a stressful event in his or her life" (p. 176)	Participants rate how others responded to a stressful event, e.g., "When I was talking with someone about the event, he or she did not seem to want to hear about it; Someone felt that I was overreacting to the event"

Table 2 Proposed dimensions of social negativity

Dimension	Description	Prototypical items
Conflict	Behaviors which provoke conflict, particularly those involving the expression of anger	<i>Yelled at me</i> <i>Lost his/her temper at me</i> <i>Argued with me</i>
Insensitivity	Behaviors which convey disregard for an individual's needs or wishes	<i>Was inconsiderate of me</i> <i>Acted unsympathetic to my personal concerns</i> <i>Took advantage of me</i>
Interference	Behaviors which hinder an individual's ability to pursue personal goals	<i>Invaded my privacy</i> <i>Interfered in my personal matters</i> <i>Made too many demands</i>

within the literature about the dimensional structure of negativity and more empirical work is needed.

Social negativity is conceptually and empirically separable from social support, as evidenced by the fact that positive and negative aspects of relationships consistently emerge as distinct factors (Okun & Keith, 1998). Although social support and negativity are not reciprocally organized, they tend to be negatively correlated, and this correlation is greatest when assessed within a specific relationship such as a marriage (Okun & Lockwood, 2003). The balance between negativity and positivity within a network is conceptually and empirically distinct from the negative and positive elements within a specific relationship, and may have different implications for health.

We have defined negativity as the presence of aversive behaviors, rather than the absence of desired behaviors, and in keeping with this definition we suggest that an absence of social support does not constitute social negativity. However, there are instances in which others refuse to provide the support we seek, despite being aware of our need, and this type of withholding may represent a form of negativity (Newsom et al., 2005). An individual's attributions for a provider's failure to provide support likely play a role in determining whether the behavior constitutes an instance of social negativity; attributing the failure to ignorance or lack of skill should not engender the same affective response as attributing the failure to cruelty or lack of caring.

As defined here, social negativity describes normative behaviors that occur in most relationships for most individuals. Although these behaviors are perceived as unwanted and can elicit negative affect, they occur in even the healthiest relationships. However, we would argue that the types of severe abuse, violence, and neglect studied in the context of social work and related fields are beyond the scope of social negativity due to their severity and often pathological nature.

Measuring Social Negativity

Social negativity measures vary in whether they assess negativity within a specific relationship, across a category of relationships (e.g., friends), or across the entire social network. To assess negativity across the social network, researchers explicitly ask participants to rate the quality of their network (e.g., 'How often do people in your social network criticize you?'), but there is some evidence that when people are asked to rate their entire network in this manner, they underestimate the frequency of

negative exchanges (Barrera, Chassin, & Rogosch, 1993). An alternative means of measuring negativity across the network is to aggregate relationship-specific reports (e.g., 'How often does [Person X] criticize you?') into category-wide or network-wide measures (Campo et al., 2009).

Measures also vary in terms of whether they assess counts of the number of negative network members (e.g., Antonucci, Akiyama, & Lansford, 1998; Rook, 1984) or the frequency with which negative behaviors occur (e.g., Lepore, 1992). Frequency measures may ask participants to recall negative behaviors over a specific time period such as the past week (Abbey, Abramis, & Caplan, 1985; Lepore, 1992) or past month (Newsom et al., 2005; Ruehlman & Karoly, 1991), or to rate the frequency of negativity without reference to a time specific time period (Vinokur & Van Ryn, 1993). Both count and frequency negativity measures are relatively subjective in that they place considerable emphasis on the respondent's construal of a target's actions and the respondent's subjective response to these actions. As described in Table 1, the majority of items used to measure negativity assess the respondent's construal of a target's actions, such as 'made too many demands on you' (Schuster et al., 1990) or 'forgot or ignored you' (Newsom et al., 2005). Fewer items explicitly assess the respondent's affective response to a target's behaviors, such as 'made you feel unwanted' (Vinokur & Van Ryn, 1993), 'got on your nerves' (Abbey et al., 1985), or 'provoked conflicts or feelings of anger' (Rook, 1984). In some instances, negativity from a target can provoke negative behavior in the recipient, a phenomenon described as initiated negativity (Boerner, Reinhardt, Raykov, and Horowitz, 2004).

Dimensional structure

Whereas social support researchers have identified numerous functions of positive resources such as informational, instrumental, and emotional support (Dunkel Schetter & Brooks, 2009), the dimensional structure of social negativity has received far less attention. Using a measure they developed to assess negative interactions in a person's social network, Ruehlman and Karoly (1991) identified four factors, which they labeled hostility/impatience, interference, insensitivity, and ridicule. These factors were only moderately intercorrelated (r s ranging from 0.43 to 0.56), suggesting that negativity is not a unidimensional construct. Finch, Okun, Pool, and Ruehlman (1999) later extracted three factors from a revised version of the same measure which they called insensitivity, interference/hindrance, and anger. Through a series of qualitative studies that included focus groups and card-sorting tasks, Newsom et al. (2005) developed a measure of negative social exchanges with four moderately intercorrelated (r s ranging from 0.35 to 0.56) factors: unsympathetic/insensitive behavior, failure to provide help, unwanted advice or intrusion, and rejection/neglect. Taken together, this work suggests that social negativity is a multidimensional construct composed of related but separable aspects.

Social Negativity and Health: Evidence

Social relationships are thought to influence physiology and health through both behavioral and psychological pathways (Cohen, 1988; Uchino, 2006). At the behavioral level, relationships can influence health behaviors such as diet, exercise, smoking, and medication adherence. The quality of an individual's social relationships also has an effect on psychological processes such as depressive symptoms, stress appraisals, sense of control, and satisfaction with life. These psychological processes are thought to in turn influence

biological processes, although as Uchino (2006) recently noted, strong meditational evidence for this pathway is lacking.

The majority of work on social relationships and health-related outcomes examines either social structural features (i.e., social integration) or positive aspects of social relationships (i.e., social support), with far fewer studies assessing social negativity constructs (for reviews, see Robles & Kiecolt-Glaser, 2003; Uchino, 2004). There is some evidence that social negativity has a detrimental effect on health-relevant physiological parameters, self-rated health, morbidity, and mortality. We limit our discussion to those studies that seem to conceptualize and measure negativity as defined here; that is, we do not intend to cover all negative aspects of social relationships (e.g., parental neglect in early childhood). Thus, our discussion is meant to provide an overview of the state of the literature and to provide illustrative examples, rather than an exhaustive review.

Physiology

Higher levels of social negativity have been associated with dysregulation in endocrine, cardiovascular, and immune function which may confer risk for morbidity and mortality. For example, individuals reporting higher levels of negativity from friends, family, and spouse/partner had lower morning cortisol and flatter cortisol slopes over the remainder of the day (Friedman, Karlamanga, Almeida, & Seeman, 2010). Negativity has been associated with increased inflammation; in adolescents, higher levels of interpersonal stress were associated with elevated C-reactive protein (CRP) (Fulgini et al., 2009) and greater stimulated production of the proinflammatory cytokine interleukin-6 (Miller, Rohleder, & Cole, 2009). Higher levels of negativity in the marital relationship were associated with elevated ambulatory blood pressure (Baker et al., 2000) and community women who reported frequent undermining from others in their social network exhibited elevated fibrinogen, a risk factor for coronary heart disease (CHD) (Davis & Swan, 1999). Finally, negativity has been associated with elevated allostatic load, an index of dysregulation across systems. Higher levels of demands/criticism from a spouse were related to higher allostatic load (AL) scores in a community-based cohort of older adults (Seeman, Singer, Ryff, Dienberg Love, & Levy-Storms, 2002) and higher levels of perceived demands from others were associated with higher AL in a sample of older Taiwanese adults (Weinstein, Goldman, Hedley, Yu-Hsuan, & Seeman, 2003).

Self-rated health

Higher levels of social negativity have been associated with poorer self-rated health (Walen & Lachman, 2000) and with deterioration in self-reported health over time (Newsom, Mahan, & Rook, 2008; Umberson, Williams, Powers, Liu, & Needham, 2006). The strongest of these studies employ longitudinal designs and well-designed measures of negativity. For example, Newsom et al. (2008) measured the frequency of numerous negative behaviors from others including the provision of unwanted advice, insensitivity, and rejection, and found that higher stable levels of these behaviors predicted lower self-rated health over 2 years, controlling for initial health and sociodemographic variables.

Morbidity

The evidence linking social negativity and disease onset and progression is strongest for cardiovascular disease. Marital stress was associated with a 2.9-fold increased risk of

recurrent coronary events among women with CHD (Orth-Gomer et al., 2000). In another prospective study, individuals who reported conflict and adverse exchanges in their closest relationship had a higher risk of incident coronary events over the subsequent 12 years (De Vogli, Chandola, & Marmot, 2007). In addition to cardiovascular disease, negativity has been associated with poorer metabolic control among individuals with diabetes (Helgeson, Lopez, & Kamarck, 2009; Helgeson, Reynolds, Escobar, Siminerio, & Becker, 2007), increased disease activity among rheumatoid arthritis patients (Zautra et al., 1997), and greater levels of functional limitations and chronic conditions (Newsom et al., 2008).

Mortality

The majority of work on social relationships and mortality has examined structural predictors like marital status and social integration, with fewer studies examining qualitative aspects. Of the 148 studies on social relationships and mortality risk reviewed in a recent meta-analysis, the only negative functional aspect of relationships included in any study was perceptions of loneliness (i.e., feelings of isolation, disconnectedness, and not belonging), with greater loneliness related to higher risk of mortality (average OR across eight studies = 1.45; Holt-Lunstad et al., 2010). Although loneliness is conceptually distinct from negativity, it is nonetheless a related concept and suggests that negative aspects of social relations may confer risk for mortality.

Unresolved Questions

The studies described above provide evidence that social negativity is associated with physiology and health outcomes, but this work leaves a number of important questions unresolved.

Do negative and positive aspects of social experience have unique effects on health?

In order to understand the effects of social relationships on health, it is essential to account for the negative aspects of social ties, yet many studies fail to assess positive and negative as distinct dimensions or use limited indicators of negativity (i.e., a single item). Just as affective scientists now recognize positive and negative affect as independent dimensions (Cacioppo & Gardner, 1999) with distinct effects on physiology and health (Kiecolt-Glaser, McGuire, Robles, & Glaser, 2002; Pressman & Cohen, 2005), it is plausible that the positive and negative components of social relationships have distinct physiological mechanisms and consequences. The effects of positive aspects of relationships on physiology may be due in part to oxytocin and endogenous opioid peptide mechanisms involved in affiliative behavior (Heinrichs, von Dawans, & Domes, 2009), while the effects of social negativity may be primarily mediated by stress-responsive systems (e.g., hypothalamic-pituitary-adrenal axis).

Negativity may have a stronger effect on health-related outcomes than social support or other positive aspects of relationships such as relationship satisfaction. In the mental health literature, social negativity is often a stronger predictor of indices like distress, depressive symptoms, and satisfaction with life (Finch et al., 1999; Rook, 2001). This may reflect the salience of negative information and the relative infrequency of negative exchanges, which may render them upsetting and surprising when they occur (Rook, 2001). Similarly, social negativity may be more predictive of physiology and

health-related outcomes than support because negative exchanges such as marital conflict consistently activate stress-responsive systems (Kiecolt-Glaser, Newton, et al., 1996; Kiecolt-Glaser, Malarkey, et al., 1993; Kiecolt-Glaser et al., 1996). The effects of positive aspects of relationships on stress physiology are less consistent; although the receipt of social support dampens physiological responses to laboratory stressors in some studies, other studies find null effects (for meta-analysis, see Thorsteinsson & James, 1999).

Alternatively, social support may be stronger predictor of physiology and health, relative to social negativity. For example, Uchino, Holt-Lunstad, Smith, and Bloor (2004) found that the number of supportive ties was a stronger predictor of psychological distress than the number of negative ties. Supportive exchanges occur more often than negative exchanges (Rook, 1984), and could thus account for a greater percentage of the variance in physiological and health outcomes based on frequency alone. Speculatively, by virtue of being influenced by stable personality traits (Lakey & Scoboria, 2005), perceived support may be closely related to underlying psychobiological traits which confer independent effects on physiology and health. The occurrence of social negativity may be less reflective of underlying qualities of the individual and more reflective of interaction and relationship based processes. Thus, it is an empirical question as to whether support or negativity is more influential for physiology and health and in what contexts.

Are there interactive effects of support and negativity on health?

Another intriguing hypothesis concerns the interaction of support and negativity, both at the network level and within specific relationships. Support from certain relationships may buffer individuals from the deleterious effects of social negativity in other relationships, a phenomenon known as *cross-domain buffering*. For example, in a sample of college students who rated their relationships with roommates and friends, Lepore (1992) found that conflict with friends or a roommate predicted increases in distress over time, but support from the other source (e.g., support from friends and roommate conflict) attenuated the effects of conflict on distress. Cross-domain buffering effects may be reflected in physiology as well.

At the dyadic level, support and negativity may interact differently than they do at the network level. The term *ambivalence* has been used to describe relationships which involve moderate to high levels of both support and negativity (Uchino et al., 2004). According to Uchino and colleagues, relationships can be classified in two dimensional space based on the extent to which they are sources of positivity and negativity, and ambivalent ties represent those individuals who fall in the high positivity/high negativity category. Ambivalent ties may be more detrimental for psychological and physical health than strictly negative ties. One reason for this is that the occurrence of negative behaviors in an otherwise positive relationship may cast a shadow on the entire relationship. DeLongis, Capreol, Holtzman, O'Brien, and Campbell (2004) suggest that the 'proximal interpersonal context' influences the impact of negative and positive behaviors, such that when positive and negative interactions occur close together in time, they influence and provide a context for the other. When a social tie exhibits a negative behavior, this could color subsequent interactions such that the individual interprets subsequent neutral or positive behaviors more negatively. In addition, interactions with ambivalent ties are likely to be more unpredictable than interactions with other ties, and unpredictability renders situations more stressful (Miller, 1981; Seligman, Maier, & Solomon, 1971).

There is evidence that ambivalent relationships may have more deleterious effects on physiology than other types of relationships. In one study, participants exhibited higher

systolic blood pressure when discussing negative events in the laboratory with an ambivalent friend than with supportive friend (Holt-Lunstad, Uchino, Smith, & Hicks, 2007), and in an experience-sampling study, interactions with ambivalent ties were associated with higher systolic blood pressure than interactions with aversive or supportive members (Holt-Lunstad, Uchino, Smith, Olson-Cerny, & Nealey-Moore, 2003). If interactions with ambivalent ties are stressful, then having a network composed of many ambivalent ties would likely take a toll on health over time. The extent to which ambivalence in social relationships influences physiology and health and the causes thereof are important directions for future research.

What are the physiological mechanisms linking social negativity and health?

In order to understand the physiological pathways by which social negativity is translated into physical health, it will be increasingly useful to integrate multiple levels of analyses, including genetic, neural, psychological, and social. One important question concerns the neural mechanisms linking social negativity with downstream physiological outcomes. Researchers are beginning to understand how negative social experiences are processed in the brain, and rapidly emerging evidence suggests that the neural regions involved in distressing social experiences, particularly the dorsal anterior cingulate cortex and anterior insula, are also involved in physical pain (Eisenberger, Lieberman, & Williams, 2003). Importantly, these regions are connected to other areas of the brain that are involved in regulating the endocrine and cardiovascular systems (Lane & Wager, 2009). This work may ultimately inform our conceptual understanding of negativity, and may help identify whether certain aspects negativity (i.e., conflict, insensitivity, or interference) are more detrimental for health than others.

Another important question regards variability in psychological and biological responses to negativity. Such differences may reflect stable personality traits (e.g., neuroticism), psychological resources (e.g., self-esteem, mastery), or social resources (e.g., social connectedness), all of which are influenced by early life experience. In addition to these psychosocial moderators, researchers are beginning to identify genetic factors which moderate neural responses to negative social experiences. For example, Way, Taylor, and Eisenberger (2009) found that variation in the μ -opioid receptor gene (*OPRM1*) was associated with individual differences in rejection sensitivity. Future work can examine whether these genetic factors have implications for physiology and health.

Are the effects of social negativity on health more potent in old age?

In order to understand the effects of relationship quality on health, it is essential to consider what stage of the life-span to study, and as Gruenewald and Kemeny (2007) recently noted, few studies have examined whether the effects of social ties on physiology change over the life-span. As individuals grow older, the quality of their social ties may begin to assume a larger importance for well-being due to changes in the structure and function of social relationships over adulthood, as well as the increased physiological vulnerability that occurs in later life. Life-span theorists have argued that aging is accompanied by greater awareness of the brevity of life, which shifts attention toward pursuing emotionally meaningful goals, such as maintaining important relationships (Carstensen, Isaacowitz, & Charles, 1999). There is evidence that as people age, they 'prune' their social networks to reduce the number of peripheral and problematic ties, so as to focus on close, meaningful ties (Lang & Carstensen, 1994). In addition, with age comes the involuntary

loss of important ties to death and disability and increased instrumental support needs as individuals become frailer and/or ill. Together, these factors may render older adults particularly sensitive to the effects of social negativity when it occurs.

There is some evidence that compared to younger adults, older adults are more vulnerable to the deleterious consequences of social negativity on mental health. In a review of 59 studies examining the association between positive/negative exchanges and depressive symptoms, Okun and Keith (1998) reported that 41% of studies found a negativity effect, but the percentage was much higher among studies conducted with older adults (88%). However, relatively few studies have tested whether age moderates the effects of social negativity on physiology and health, and this is an important question for future research.

Are the effects of social negativity on health moderated by gender?

Men and women may differ in both how often they experience social negativity and how this negativity affects their health and well-being. Although there are many theoretical reasons to expect that social negativity may take greater toll on women (i.e., gender role differences in relational orientation), many studies do not find gender differences (Okun & Keith, 1998). Although gender may not always directly moderate the effects of social negativity on physiological and psychological outcomes, there may be complex interactions among gender, age, and source of negativity. In a large community sample, Walen and Lachman (2000) found that negativity from family members was more predictive of psychological outcomes for women than for men, and that friend and family support buffered the effects of negativity more effectively for women. More work is needed to understand the precise nature of these gender differences and their relevance for physical health.

Are the effects of social negativity on health related moderated by relationship context?

Social negativity may be particularly detrimental in the context of close relationships that are highly valued, such as marriage. Spouses fulfill more support needs, are more closely intertwined with self concepts, and may spend more time with a person than do other family or friends. In addition, spouses may be able to 'push our buttons' and provoke conflict because they know us well. Future research is needed to determine whether social negativity in the context of marriage is in fact more detrimental for physical and mental health than negativity in other relationships.

Conclusion

In summary, the study of social negativity has not kept pace with the study of social support, and a more refined conceptual framework for the negative side of social relationships is needed if we are to fully understand the effects of social relationship quality on physical health and well-being. We have argued that although a variety of terms have been used to describe the negative aspects of social relationships, they represent one underlying construct – social negativity – which we defined as behaviors from others which are directed at the recipient and which are perceived as aversive or unwanted. We have suggested that social negativity is composed of three distinguishable but overlapping aspects, which we referred to as conflict, insensitivity, and interference. Although there is some evidence linking negativity with physiology and health outcomes, more work is needed to confirm these associations and to understand mediating pathways.

An essential step for researchers is to agree on consistent terminology, which will facilitate synthesis and integration across studies. Although dozens of terms have been used to describe the negative aspects of social functioning, they lack the conceptual development to render them distinct constructs. Consistent and well-defined terminology is long overdue. We propose that *social negativity* is an ideal term because it is general enough to include the multiple aspects of negativity.

Another key step is to refine conceptual understanding of social negativity and integrate theoretical developments from the psychological well-being literature. In particular, researchers ought to account for interactive effects with positive aspects of relationships at both the network and relationship-specific levels and moderators such as age, gender, and relationship type. Moving forward, it will also be useful to integrate perspectives from other literatures. For example, relationship science offers sophisticated conceptual models of dyadic processes (e.g., Mikulincer & Shaver, 2007; Murray, Holmes, & Collins, 2006; Rusbult & Van Lange, 2003). Clinical science has demonstrated that specific types of social stressors often precede the development of psychopathology (e.g., Kendler et al., 1995) and a better understanding of the specific features of these negative social experiences may inform our understanding of social negativity more broadly.

With consistent terminology, conceptual refinement, and theoretical integration, the study of social negativity will improve dramatically and will enhance our understanding of how social relationships influence health and well-being.

Short Biographies

Kathryn P. Brooks is currently a doctoral candidate in social psychology at the University of California, Los Angeles, where her training has been supported by the National Institutes of Health and the National Science Foundation. Her research uses laboratory and survey methods to examine the psychological and biological pathways by which social relationships influence physical health, and has been published in *Personal Relationships*, *Health Psychology*, and *Psychoneuroendocrinology*. Her dissertation examines the effects of social support and social negativity on allostatic load, an index of cumulative dysregulation across physiological systems, in a large nationally representative sample of middle aged and older adults.

Christine Dunkel Schetter is Professor of Psychology at the University of California, Los Angeles, and Chairs the Health Psychology Program. Chris has had a long standing interest in social relationships and health including conducting one of the first studies on social support and cancer, coauthoring (with Camille Wortman) theoretical work on negative reactions to people with cancer, and more recently publishing papers on social support in pregnancy with many of her students and postdocs including Dr. Christine Rini with whom she collaborated in developing an approach to studying social support effectiveness. She has a long-standing interest in both positive and negative features of close relations that help and hinder people who are in distress or who are in need of social resources. Chris is a Fellow of APA, APS, and the Society of Behavioral Medicine and is a member of the Society of Experimental Social Psychology and the Academy of Behavioral Medicine. She currently serves on the Advisory Board of *Current Directions in Psychological Science*, completed two terms as an Associate Editor of *Health Psychology* and has served on the editorial boards of other journals including *Journal of Personality and Social Psychology*, and *Basic and Applied Social Psychology*. She received her PhD from Northwestern University and completed postdoctoral training from the University of California, Berkeley.

Endnote

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