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Evidence for a Life-Span Theory of Socioemotional Selectivity

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## Evidence for a Life-Span Theory of Socioemotional Selectivity

Laura L. Carstensen

The importance of social involvement goes unquestioned by social scientists. Social interaction provides the context for a broad array of basic human needs and goals, ranging from the transmission of culture to feelings of emotional embeddedness. Indeed, it is within the context of social relationships that the self emerges. Because it is widely assumed that humans are, by their very nature, social creatures, the fact that social contact declines with age provokes questions about the antecedent conditions and consequences of this aging phenomenon as well as fundamental theoretical questions about the function and meaning of social interaction.

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### THEORIES ABOUT AGE-RELATED CHANGE IN SOCIAL BEHAVIOR

Most theoretical explanations for the age-related reduction in social contact have focused on relatively macro-level influences. Activity theory, which has been the dominant paradigm in social gerontology, views inactivity as a societally induced problem. Proponents of this view argue that the causes of inactivity are rooted in social ills, such as mandatory retirement, which more diffusely reflect an indigenous ageism in our sociopolitical structures. Stressing that societal change is needed to remedy the problem, advocates of this view have exerted great influence on social programs and federal policies.

Drawing on both structural societal and intrapsychic processes, disengagement theory<sup>1</sup> suggests that preconscious awareness of the imminence of death instigates increased

self-awareness and social withdrawal. Grounded in psychodynamic ideas about conflict and defenses, this view represents social inactivity as a normal adaptive process. Thus, emotional quiescence, pensive self-reflection, and a turning away from the social world are considered to be a natural part of aging.

Dominant as these theories have been, they are not without their critics. Although each model enjoys some empirical support, none provides a cogent explanation for the body of empirical findings that has accrued in recent years. A growing literature shows that opportunities to pursue contact are regularly bypassed by older people and that when health status is held constant, there is no relationship between level of social activity and psychological well-being. Disengagement theory, although intriguing, has been challenged by recent empirical evidence about emotion in late life. Specifically, emotional quiescence and the active avoidance of emotional experience do not appear to typify late life. Older people experience emotions subjectively at levels comparable to those of younger people<sup>2</sup> and appear to regulate their emotions well.<sup>3</sup> That is, although the mercurial quality of emotion may decline with age, at the same

time, emotion appears to grow increasingly ubiquitous and salient. One recent study, for example, demonstrated that older people—relative to younger people—remember emotional material better than neutral material from story narratives.<sup>4</sup>

Further, these theories tacitly (or explicitly) take social changes as evidence of reactive processes associated uniquely with old age and presume that the principal organizer of changed social patterns is loss. In contrast, life-span developmental theory speaks against a search for age-specific explanations for behavioral and psychological phenomena, as well as against implicit assumptions that observed age-related changes are caused by age. Rather than stemming from the passage of time, age-related changes more likely follow from a complex network of interactions representing the person's past, present, and future percepts, as well as opportunities afforded in the environment to satisfy basic human needs. Such a theoretical framework suggests that it may be fruitful to conceptualize old age as providing a set of conditions that frequently alter behavioral, cognitive, and emotional goals and bring to the fore basic human processes that are present throughout life.

### SOCIOEMOTIONAL SELECTIVITY THEORY

Several years ago, along with my students, I embarked on a program of research aimed at exploring the psychological mechanisms potentially involved in reduced social contact. In research designed to test existing gerontological theories, we found evidence for a developmental phenomenon that has considerable adaptive value. The organizing conceptual framework that has alternately evolved from and guided this research program is socioemotional

selectivity theory.<sup>5</sup> This theory focuses on psychological processes that mediate observed changes in social preferences and social behavior. According to socioemotional selectivity theory, social contact is motivated by a variety of goals. Specific goals or functions of interaction range from basic survival (such as protection from physical danger) to psychological goals (such as development of self-concept and regulation of emotion). The theory holds that similar sets of social goals operate throughout life, but that the salience of specific goals fluctuates depending on place in the life cycle. In particular, the regulation of emotion becomes increasingly salient over the life course, while the acquisition of information, and the desire to affiliate with unfamiliar people, decreases.

Changes in the salience of certain goals at different life stages result in changes in preferences for social partners. For example, when emotion regulation is the goal, people are highly selective in their choice of social partners, nearly always preferring social partners who are familiar to them. Infancy and old age are the two life stages that probably represent the peak emphasis on emotion regulation. Whereas babies turn to their mothers, very old people often

turn to their adult children for emotional comfort.

In contrast, when information seeking is the goal, novel, unfamiliar people are often the best sources. Thus, when a person is exploring the world, trying to understand how it works, what the culture is like, how he or she compares with other people, and what other people are like, interactions with novel social partners have greater potential to fulfill this goal than would interactions with familiar social partners. The period from adolescence to young adulthood likely represents the peak emphasis on the goal of information seeking and, consistent with the theory, is a time when people are establishing their independence from long-time family and friends and seeking out new social contacts.

Figure 1 provides an idealized illustration of the life-span trajectory, as predicted by socioemotional selectivity theory, of three primary social motives: emotion regulation, development and maintenance of self-concept, and information seeking. The theory acknowledges the presence of each motive throughout life; it is only the relative salience that changes.

Experience, for which age is a reasonable proxy, accounts for some of the change in the salience of spe-

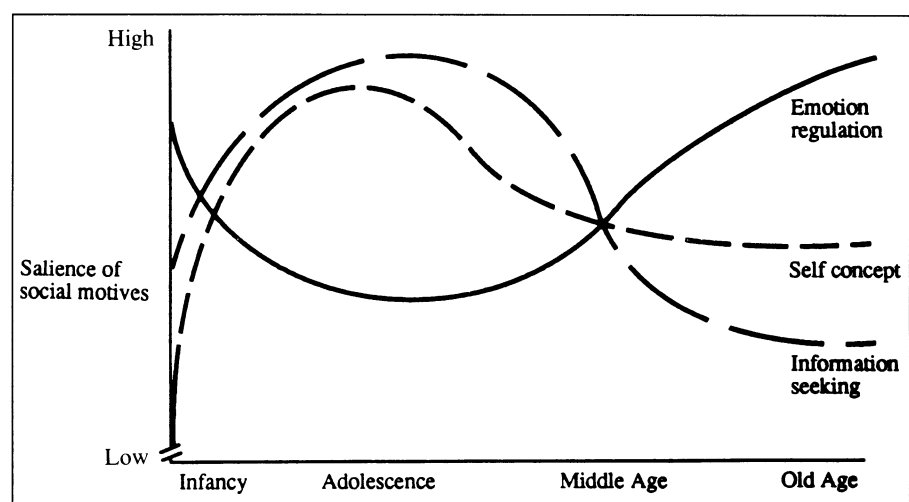


Fig. 1. Idealized model of socioemotional selectivity theory's conception of the salience of three social motives across the life span.

cific social motives. As people's stores of information increase, for example, there are increasingly fewer people who can provide novel information. Thus, social interaction in the service of obtaining information becomes less effective over time, while other less social means of obtaining information, such as reading, become more effective.

However, according to socioemotional selectivity theory, experience accounts for only part of the story. The salience of specific social motives is also influenced by the construal of the future, for which chronological age is also a good index. When the future is perceived as limited, attention shifts to the present; immediate needs, such as emotional states, become most salient. When the future is perceived as largely open-ended, long-term goals assume greater importance. Thus, early in adulthood, much social behavior is geared toward the acquisition of information, even to the neglect of emotional states. The ambitious graduate student tolerates the crotchety professor because the long-term gains outweigh the short-term losses. In contrast, in late life, emotion regulation assumes primacy, in part because of the implicit irrelevance of the future that age imposes. The theory predicts that, relative to younger people, older people will be less motivated to engage in emotionally meaningless (but perhaps otherwise functional) social contact, and will make social choices based on the potential for emotional rewards derived from social interactions. Thus, when that same graduate student is a 90-year-old chemist, such trade-offs between the long and short term will no longer be tolerated; the crotchety neighbor will be avoided even if he or she is a former professor who is highly knowledgeable about some subject. Although inconsistent with traditional models of social aging, the view that reductions in social contacts are adaptive is wholly con-

sistent with life-span theory, especially notions about the nonlinearity of development and the importance of social context.

### EMPIRICAL EVIDENCE FOR THE THEORY

Socioemotional selectivity theory leads to a number of testable hypotheses. First, it suggests that the age-related reduction in social contact does not begin suddenly in old age, but rather represents a gradual (perhaps lifelong) phenomenon. Second, it suggests that conditions other than old age, such as geographical relocation or other externally imposed constraints on time, will also influence the salience of different goals and, subsequently, the choice of social partners. Therefore, younger people who hold perceptions of the future similar to those of older people should make the same kinds of social choices as those typically made by older people. Third, the theory suggests—in stark contrast to disengagement theory—that emotion will become more salient, not less so, in old age or whenever the future is limited. To state it most simply, socioemotional selectivity theory argues that the social changes that are reliably seen in old age are not determined by a set of biological changes and decrements that are unique to old age, but rather that these social changes reflect cognitive and motivational processes that have their roots early in development, and that operate to influence social behavior in all stages of life.

In an effort to explore further the life-span context of reductions in social interaction, as well as their subjective concomitants, I reanalyzed a subset of data from a longitudinal study initiated by Jean McFarlane roughly 60 years ago.<sup>6</sup> Participants in this research were interviewed four times as adults, when they were

17 or 18, 30, 40, and, finally, 50 years old. Assessed were the frequency of contact, satisfaction, and emotional closeness in six different types of relationships (i.e., acquaintances, children, parents, spouses, siblings, and close friends). Findings showed that reductions in contact over time were most prominent in acquaintance relationships, which according to socioemotional selectivity theory are largely informational sources. Yet contact frequency in the most intimate relationships (i.e., spouse and children) remained stable or increased across the same time period. Emotional closeness was maintained or increased in all close relationships, even in sibling relationships, for which interaction frequency declined.

More recently, Lang and I were able to explore the generalizability of these findings in a cross-sectional analysis of a representative group of old and very old people who had participated in the Berlin Aging Study.<sup>7</sup> We reasoned that if, on the one hand, drops in social contacts were due exclusively to deaths or other barriers to contact, they would occur evenly across different types of relationships.<sup>8</sup> If, on the other hand, older people played a role in limiting contact to their closest social partners, reductions would be unevenly distributed. Thus, we hypothesized that the size of social networks would be significantly smaller for people in their 90s than for people in their 80s. However, we also hypothesized that, consistent with socioemotional selectivity theory, reductions would occur primarily in more peripheral relationships. The data supported both hypotheses. Although the oldest people had far fewer acquaintances in their social networks, they had roughly the same number of emotionally close social partners as their younger counterparts. Just as in the American longitudinal sample, the size of social networks decreased with age pri-

marily because older people had fewer acquaintances, not fewer confidants. Within a life-span context, the picture of social activity that emerges more closely resembles social selection than social withdrawal.

Still, the fact that selection occurs leaves unanswered questions about volitional aspects of the phenomenon. Reductions could occur because of external constraints of various sources, from competing demands to structural aspects of social networks. Another investigation, however, provided evidence of age differences in mental representations of and preferences for social partners.<sup>9</sup> Using a card-sort paradigm, Fredrickson and I examined the cognitive representations of social partners held by young and old adults ranging in age from 16 to 92. The task required subjects to sort into piles a set of 18 cards, each of which described a prospective social partner. The descriptions of the social partners were sufficiently general (e.g., a close friend, a sibling, a new neighbor) that all subjects could relate to each category. Subjects were instructed to sort the cards into as many or as few piles as they wished based on how similarly they would feel interacting with the social partners described.

Using multidimensional scaling techniques, we identified three primary dimensions along which subjects classified social partners: the potential for emotionally meaningful contact, the potential for future contact, and the potential to gain information. As hypothesized, the importance of the dimensions varied by age group. Older people placed greatest emphasis on the affective potential of prospective social partners, whereas younger people placed comparable emphasis on all three dimensions. In an effort to assess preferences for social partners, we also asked subjects to identify which of the persons described on the cards they would like to get to

know better. Younger people were most likely to mention social partners they did not know well. Older people were most likely to identify social partners who were already well known to them. Only 5% of the older, infirm individuals expressed an interest in getting to know a novel social partner.

More recently, we replicated the card-sort procedure in a large sample drawn from the San Francisco Bay area. The sample included African-American and Caucasian-American blue- and white-collar workers, ranging in age from 18 to 88.<sup>10</sup> The same dimensions—*affect*, *information seeking*, and *future contact*—emerged as the principal dimensions along which people classified prospective social partners. And once again, older people classified prospective social partners based on the affective potential of interaction more than the other two dimensions, whereas younger subjects weighted all three dimensions similarly.

According to socioemotional selectivity theory, a limited future results in increased attention to and preferences for affectively rich interaction. In another study,<sup>9</sup> we tested the hypothesis that anticipated endings—as opposed to age per se—drive preferences for interaction; that is, we predicted that when endings are anticipated, the affective potential of interactions becomes the principal consideration in selection of social partners. People ranging in age from 11 to 92 were contacted by telephone and asked to respond to two scenarios. In the first, they were asked to imagine that they had 30 min free, with no pressing commitments, and that they had decided to spend this time with another person. They were then asked to choose among three prospective social partners, each of whom represented one of the organizing dimensions identified in our previous work: a member of their immediate family, a recent acquaintance with

whom they seemed to have much in common, and the author of a book they had read. The second scenario was only slightly different. In this case, subjects were asked to imagine that in a few weeks they would be moving across the country, unaccompanied by family or friends. Then they were asked to choose among the same three social partner options just described.

Results confirmed our hypotheses: Under both unspecified and time-constrained circumstances, older people preferred familiar social partners. Under unspecified conditions, younger people's choices were evenly distributed across the three options, but in the time-constrained condition, younger people's choices mimicked those of older people by favoring familiar social partners over unfamiliar ones.

Very recently, in research that has not yet been published, Amy Lutz and I replicated and extended these findings, showing that it was possible to modify older adults' choices of social partners. In this study, the first condition was the same as in the previous study, but in the second condition, subjects were asked to imagine that they had recently learned from their physician that a new medical advance could ensure they would live 20 years longer than they expected, in reasonably good health. In this study, older people changed their choices of social partners in favor of novel social partners.

Thus, it appears that in old age, day-to-day choices are made with the conscious or unconscious awareness that time is limited, and choices are based on the affective potential of social interactions more than more future-oriented goals. Of course, age and closeness to death are nearly always confounded. Sadly, however, there are exceptions to this rule. Young people facing terminal illnesses also anticipate the end of their lives. In another study, Fredrickson, Lutz, and I tested the hypothesis that young people liv-

ing with a terminal illness would make choices similar to those made by older people in our studies.<sup>10</sup> Using the card-sort procedure already described, we interviewed a relatively young sample of gay men living in the San Francisco Bay area. Of a total of 120 men, 40 tested negative for HIV, 40 tested positive but were not experiencing symptoms, and 40 were HIV positive and symptomatic of AIDS. Although comparable in age, the three groups had quite different life expectancies. We hypothesized that the HIV-negative group would perform similarly to an age-matched group of healthy peers from the general population, the HIV-positive, asymptomatic group would perform similarly to our middle-aged subjects, and the HIV-positive, symptomatic group, foreseeing a limited future, would perform similarly to our elderly subjects.

Once again, results confirmed the hypotheses. The healthy subsample classified prospective social partners based on a mixture of future contact, information seeking, and affective potential, whereas among the infirm subsamples, affective potential assumed central prominence in categorizations of prospective social partners.

Socioemotional selectivity theory suggests that intimate relationships will become increasingly important with age. For many people, marriage is the most significant intimate relationship in adulthood, yet, regrettably, most psychological research on marriage has focused on relatively young couples. Recently, Levenson, Gottman, and I completed a study of 156 long-term marriages in middle age and early old age, representing both unhappy and happy couples.<sup>11</sup> The centerpiece of this research was a laboratory study of marital interaction in which couples discussed various issues related to their marriage while we obtained comprehensive measures of subjective emotional experience, emotional behavior, and physiology.

This research on marriage has provided a first opportunity to test key tenets of socioemotional selectivity theory in the context of intimate relationships. Thus far, the results have been quite supportive of the theory. For example, the theory predicts that, with emotion becoming more salient with age, older couples will utilize strategies that ensure a positive and well-regulated emotional climate. This turns out to be the case. Compared with middle-aged couples, older couples reported experiencing lower levels of conflict in a wide range of areas and deriving greater pleasure in a number of areas of marital life.<sup>11</sup> When discussing a conflict in their relationship, older couples reported feeling more positive, displayed less negative emotion and more affection,<sup>12</sup> and became less physiologically aroused<sup>13</sup> than did middle-aged couples. Thus, even in the context of discussing serious marital issues in which spouses do express negative emotion, older couples appear to strive simultaneously toward a kind of emotional homeostasis. Older couples regulate emotion in a way that should help preserve what is a very important late-life relationship—marriage.

## CONCLUSIONS

Although alternative explanations can be generated for any one of the studies described, the profile of resulting empirical findings suggests that people grow increasingly selective in their choices of social partners and that, in particular, the construal of available future time changes preferences. Notably, similar social changes are evident in younger people when limitations on the future are imposed, and biases for familiar social partners are reversed in older people when they imagine that the future is expanded, suggesting that a general selection

mechanism, as opposed to an intractable deteriorative process, underlies social changes associated with chronological aging. Essentially, when future social opportunities are limited, the salience of emotion appears to increase and the motivation to pursue novel social contacts decreases.

Socioemotional selectivity theory offers an explanation for the same phenomenon that prompted earlier gerontological theories about social aging, namely, a reliable, age-related decrease in social interaction. The theory differs from previous models in important ways. It is a life-span theory based on goals and premised on the assumption that similar sets of social goals motivate social contact throughout life. According to the theory, regardless of age, the activation of a particular social goal is contingent on the social, psychological, and cognitive conditions the individual perceives. When time is perceived as limited, the constellation of goals is reorganized, with short-term goals, such as how one feels, assuming greater importance than long-term goals, such as information acquisition. Although old age represents the penultimate social ending, other conditions also conspire to limit the construal of future time, and when they do, younger people evince behaviors and choices like those of older people. Thus, although socioemotional selectivity theory speaks to age, it is not a theory of old age; rather, it holds relevance for understanding social preferences and social behavior across the life span. It does suggest that in old age, the process of limiting social partners is highly adaptive. By molding social environments, constructing them in a way that maximizes the potential for positive affect and minimizes the potential for negative affect, older people increase the odds that they will regulate the emotional climate, which may, at the end of life, represent the supreme social goal.

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# Behavioral Families and Multiple Causes: Matching the Complexity of Responses to the Complexity of Antecedents

Kathy A. Hanisch

Individuals rarely enact isolated, single responses to stimuli. Rather, they enact multiple, structured responses either sequentially over extended periods of time or nearly simultaneously within short time periods. These behavioral responses result from a complex set of multiple antecedents, such as attitudes, cognitions, required role behaviors, and past experiences. These multiple behavioral responses are scientifically and practically important in virtually

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all domains, but have received little attention and have not often been analyzed rigorously by investigators. Social scientists, across most research domains, almost exclusively examine single, specific behaviors or tendencies and their relations to one or two antecedents in a single study. Because individuals likely react to external and internal stimuli by using an entire repertoire of responses, evaluating an individual's specific response will result in limited, and potentially flawed, understanding. This article describes the rationale for and benefits of studying multiple behavioral responses and multiple antecedents within one study, focusing on empirical research investigating organizational withdrawal and general work attitudes. Theoretical and practical, statistical, and psychometric reasons for the scientific usefulness of examining multiple behaviors and multi-

ple antecedents are presented, followed by a nonempirical example illustrating this approach in the area of indirect self-destructive tendencies.

## BEHAVIORAL FAMILIES

Behavioral families, or behavioral constructs, are aggregates of related behaviors or tendencies that are partially substitutable and, in some cases, functionally similar; they serve the same or similar purposes, in varying degrees, for individuals. These composites encompass specific behaviors or tendencies each assessing an important and different aspect of the general construct of interest.<sup>1</sup> Each item in the measure contributes unique information to the construct's assessment, resulting in an improvement in validity, breadth of coverage, and the usefulness of the scale relative to a homogeneous measure that focuses on similar items that all measure similar aspects of the construct. Behavioral families summarize general behavioral tendencies and take advantage of the fact that certain responses share similar features in that they are partially substitutable, serve the