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## The Impact of Reminiscence on Socially Active Elderly Women's Reactions to Social Comparisons

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The goal of this study was to experimentally examine how social comparison with younger and same-age targets influences perceptions of future well-being and mood among elderly women. In addition, we assessed whether life satisfaction and reminiscence about a positive former self moderated these reactions. Results indicated that reminiscence prior to comparison with a successful, younger target improved well-being of women who were low in life satisfaction. Also, downward comparison with a same-age target had a more negative impact on low-satisfaction women than did upward comparison with a same-age target. In conclusion, this study suggests that reminiscing has an impact on how elderly women, especially those who are relatively dissatisfied with their current life status, respond to social comparisons.

Although the media portrayal of the older woman is often that of a granny at home alone, in reality, most older women live in a social world. They spend time with other elderly individuals at senior centers, community events, and social engagements. They are also exposed to younger people on a regular basis—on TV, when shopping, and so forth. Among those elderly persons who are more active, many of their social contacts are likely to be with others who are younger. Thus, in a typical day, an elderly woman will be confronted with a variety of social comparison targets and information. She will encounter people who are adjusting well to growing older and others having trouble coping as they age, and she will meet and gain information about younger people, many of whom are doing well—better than she is on some dimensions. It is unclear what impact these social comparison targets have on elderly women. This study examines this question.

Simply investigating how individuals respond to different targets (older and younger) would miss an important step in the comparison process that often occurs in daily life, however. Many older people have vivid memories of the past (Butler, 1995). When talking with others, a word or event

will remind them of their past—events, abilities, and accomplishments. The purpose of this study is to experimentally examine how different social comparison targets, including younger targets, affect perceptions of future well-being among the elderly, and also how reminiscing about the past may play a role in this process.

### SOCIAL COMPARISON

Many decades of work have documented social comparison processes among college students (see Suls & Wills, 1991). More recently, it has become clear that social comparison theory is an integral part of both mental and physical health-related cognitions and behaviors (Buunk & Gibbons, 1997). The application of social comparison theory to the psychology of aging, however, is recent, and has been relatively limited in scope. Several researchers have examined the frequency with which elderly people report engaging in social comparison and have found that for most elderly individuals, social comparison is a naturally occurring process (Heidrich & Ryff, 1993a; Rickabaugh & Tomlinson-Keasey, 1997; Suls, Marco, & Tobin, 1991). Other studies with older women have examined social comparison as an evaluative rating, that is, self relative to others (Heidrich & Ryff, 1993a;

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Robinson-Whelen & Kiecolt-Glaser, 1997), or have focused on global emotional consequences of comparison (Heidrich & Ryff, 1993b). Generally, these studies have suggested that older women who feel good about themselves in comparison with others report higher levels of psychological well-being. To date, only one study has used an experimental design to vary the type of comparison target presented to determine its impact on members of an elderly population (Mares & Cantor, 1992; see next).

### Downward Comparison

Although research examining elderly populations has rarely focused on the affective consequences of forced comparison with different targets, a number of studies have examined how younger people react emotionally to social comparison with others who are doing better or worse (i.e., upward and downward social comparison). Downward comparison theory (Wills, 1981), and early research prompted by it, suggested that comparing with others who are doing poorly can generate positive affect and enhance subjective well-being (Gibbons, 1986; Gibbons & Boney-McCoy, 1991; Gibbons & Gerrard, 1989; Hakmiller, 1966; Taylor, Buunk, & Aspinwall, 1990; Wills, 1981; Wood, Taylor, & Lichtman, 1985). One reason for this, it has been suggested, is that the recognition that things could be worse, but are not likely to get that way, can be encouraging for those who are having difficulties themselves (Gibbons, 1999; Gibbons & Gerrard, 1991). More recently, researchers have noted that comparing with others doing worse may arouse anxiety about a possible worse future in individuals who are themselves facing decline (Aspinwall, 1997; Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Major, Testa, & Blyma, 1991; Molleman, Pruyn, & VanKnippenberg, 1986; Ybema, Buunk, & Heesink, 1996). This suggests that downward comparison may evoke a different reaction among elderly individuals who are having difficulty than it has (in previous studies) with college students experiencing threat. This may occur because the probability of future decline—made salient by a downward comparison target—is more imminent and perhaps more threatening for older persons than it is for college students.

This possibility is consistent with Mares and Cantor's (1992) experimental study of the effect of downward comparison on older persons. In this study, elderly participants were exposed to either upward or downward social targets on videotape. The downward target was an elderly widower who was isolated and depressed, and the upward target was an active elderly man who lived with his wife, surrounded by doting children and grandchildren. The authors reported that participants who were most socially active (i.e., not lonely), and thus most comparable to those in our study, experienced an increase in negative affect after exposure to the isolated, depressed comparison target.

### Upward Comparison

Early research suggested that comparisons with others doing well can make people feel envy (Salovey & Rodin, 1984) and lower self-evaluation (Morse & Gergen, 1970). It was believed that social comparison with an upward target leads people under stress to conclude they are inferior. More recent studies, however, have suggested that comparing with similar others who are doing well can result in inspiration and positive affect (Brewer & Weber, 1994; Buunk et al., 1990; Collins, 1996; Gibbons, Blanton, Gerrard, Buunk, & Eggleston, 2000; Helgeson & Taylor, 1993; Taylor & Lobel, 1989; Ybema & Buunk, 1995). For example, Ybema et al. (1996) found that recently unemployed individuals experienced more positive mood after being confronted with an upward comparison target rather than a downward comparison target.

It remains unclear how elderly individuals will respond to upward and downward comparisons with similar (same-age) targets. In addition, no research to date has investigated how older adults respond to the opportunity to compare with younger targets. Two possible reactions seem most likely: (a) This type of comparison will have little or no impact on the elderly individual, as dissimilar targets generally have much less impact than similar targets (Festinger, 1954; Goethals & Darley, 1977; Sanders, 1982); or (b) Given the frequency with which nonisolated elderly are confronted with upward comparison targets in the form of younger persons who are doing well, forced comparisons will have an impact. If that is true, one important question is what factors might moderate reactions to these ubiquitous but potentially painful social comparisons.

### Reminiscence

*Is reminiscence adaptive?* Reminiscence is defined as "the process or practice of thinking or telling about past experiences" (*Merriam-Webster's Collegiate Dictionary*, 1988). As people age, they develop a vast supply of memories of previous experiences, and many spend significant time thinking about and discussing these memories (Lieberman & Tobin, 1983). Consequently, a number of researchers have sought to understand how reminiscence might serve an adaptive function in the aging process. Costa and Kastenbaum (1967), for example, found that successful recall of past memories among a sample of centenarians predicted the presence of future ambitions. They concluded that an individual's "reservoir of memories helps sustain his present moment of existence" (p. 15). Unfortunately, however, this early research was inconclusive with respect to the adaptive value of reminiscing (Merriam, 1980; Molinari & Reichlin, 1984/1985; Romaniuk, 1981; Thornton & Brotchie, 1987). One reason for this was a lack of clear specification of the kinds of reminiscing that contribute to adaptive goals. An-

other reason is that very few of these studies used experimental designs.

More recent research has suggested that reminiscing about past strengths and accomplishments can function as a resource for expanding coping capabilities and maintaining a positive self-concept (Watt & Wong, 1991; Wong, 1995; Wong & Watt, 1991). For example, a study of the use of reminiscence as a clinical intervention for patients awaiting invasive medical procedures revealed that telling stories emphasizing past successes reduced anxiety and increased coping self-efficacy (Rybarczyk, 1995; Rybarczyk, Auerbach, Jorm, Lofland, & Perlman, 1993). We believe that reminiscing can also be influential in determining responses to social comparison. Specifically, reminiscing about past achievements and times of particular well-being should be especially important when older adults compare with successful younger persons.

*Life satisfaction as a moderator.* Previous research in social comparison has also suggested that individuals who are threatened or uncertain about themselves and their current situation or both are more responsive to social comparison information than are nonthreatened people (Ahrens & Alloy, 1997; Swallow & Kuiper, 1988). Moreover, recent work by Gibbons and Buunk (1999) indicated that those who are less satisfied with their current life situations are more likely to report engaging in social comparison. Hence, life satisfaction was expected to play an important role in how elderly individuals respond to social comparison opportunities. Specifically, it was hypothesized that social comparison targets will have more of an impact on elderly women who are less satisfied with their current life than it will on those who are more satisfied.

## Overview

This study examines how directed (positive) reminiscence and current life satisfaction moderate the effects of social comparison on elderly women's perceptions of future well-being. Two questions were addressed. The first question concerned the effect of reminiscing about a time of peak competence and capability on reactions to an upward comparison with either a same-age target or younger target. It was proposed that positive reminiscing would have relatively little impact on reactions to a same-age upward comparison target. However, among those who are less satisfied with their current life situation, the opportunity to think and talk about a positive time in the past should mitigate the discomfort associated with the perceived discrepancy between elderly women's perceptions of their current status and that of a younger successful target, resulting in favorable perceptions about the future.

A second question of interest involves the effect of reminiscence on reactions to same-age upward and downward comparison targets. As stated previously, reminiscence was not expected to influence reactions to a same-age upward target. Thinking about a positive time in the past offers little information relevant to a current comparison with a successful peer. However, reminiscing about a "peak" time followed by downward comparison with a same-age target was expected to elicit different responses from participants, depending on their current life satisfaction. Specifically it was hypothesized that positive (directed) reminiscing would make past capabilities salient, and that same-age downward comparison would remind individuals that their current situation could be worse (but is not). Thus, more so than those who are satisfied, women who are less satisfied with their current life situation were expected to be discouraged by the combination of remembering better times and exposure to a downward social comparison target who presumably foreshadows hard times ahead.

Although the primary focus of the article is on perceptions of future well-being and the complex processes of reminiscence and social comparison, we were also interested in how mood changes as a result of upward and downward comparison opportunities. Design constraints necessitated examining mood as a nested dependent variable and thus limited the ability of this study to examine the impact of social comparison on this measure. Nonetheless, the design did allow an expansion of the work by Mares and Cantor (1992). More specifically, we assumed that life satisfaction would interact with type of target in influencing mood changes, such that individuals with high life satisfaction would be relatively indifferent to the type of target presented, whereas those with low life satisfaction would respond with less positive mood following comparison with a same-age downward target than following comparison with a same-age upward target (cf. Buunk & Ybema, 1997).

## METHOD

### Participants

Participants in the study were 105 women with a mean age of 71 ( $SD = 5.90$ ; range = 59–85).<sup>1</sup> They were recruited through various civic and social organizations in Iowa and thus were socially active and integrated into the community. Sixty percent were currently married; only 25% were widows. Partici-

<sup>1</sup>A smaller sample of men was also assessed in the study ( $n = 64$ ). Although their pattern of results was similar to that evidenced by the women, the effects were not significant. Unfortunately, as is common with research among older people, the number of male participants was not large enough to permit gender comparisons.

pants were generally doing well financially, as 69% reported that at the end of the month they had some money left over.

## Design

Participants were randomly assigned to each of six experimental cells. The design was a 2 (remembrance/no remembrance)  $\times$  3 (social comparison) incomplete factorial, with life satisfaction treated as a continuous independent variable. (A complete factorial design that allowed for the orthogonal test of the impact of upward and downward, same-age and younger targets, with or without remembrance on both mood and well-being, although preferable, was not feasible, given the difficulties associated with recruiting participants from this population. Thus, a decision was made to eliminate the cell of least interest to us, comparison with a younger, downward target.) The social comparison factor included three types of experimentally induced social comparison (upward same-age, downward same-age, and upward younger). The design and hypotheses dictated analyses employing two nonorthogonal contrasts. The first contrast (C1) compared participants' reactions to social comparison with the two upward targets: same-age and younger. The second contrast (C2) compared reactions to the two same-age targets: upward and downward.

## Measures

**Life satisfaction and health status.** Life satisfaction was assessed using eight items from the Life Satisfaction Scale (e.g., "As I grow older, things seem better than I thought they would be"; Neugarten, Havighurst, & Tobin, 1961). Ratings were made on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Scores ranged from 18 to 38 ( $M = 30.83$ ,  $SD = 4.15$ ;  $Mdn = 31$ ;  $\alpha = .71$ ). Health status was assessed with the following three questions: "How would you rate your overall health at the present time?" (endpoints *poor* and *excellent*), "How much do your health troubles stand in the way of your doing the things you want to do?" (endpoints *not at all* and *a great deal*), and "How active are you (physically)?" (endpoints *not at all* and *very*). Ratings were made on a 133-mm line. Scores for the three items (with the second item reversed) ranged from 80 to 375 ( $M = 266.64$ ,  $SD = 70.07$ ,  $Mdn = 256$ ;  $\alpha = .79$ ).

**Future well-being.** Future well-being was assessed by asking participants how they thought their well-being would change in the next 4 or 5 years. Ratings were made on a 133-mm line with endpoints consisting of *get worse* and *get better* and a midpoint labeled *stay the same*. This question was asked prior to the remembrance manipulation and then

again after the evaluation of the social comparison target. Change in this measure was the primary dependent variable.

**Mood.** Participants completed two measures of mood, each consisting of eight adjectives. The first assessment included the adjectives happy, bitter, unfriendly, satisfied, sympathetic, calm, pessimistic, and enthusiastic ( $\alpha = .60$ ). The second assessment included the semantic opposites of the previous adjectives ( $\alpha = .62$ ). Ratings were made on 133-mm lines with endpoints of *not at all* and *very much*. The first mood measure was completed after the remembrance manipulation and just prior to the social comparison manipulation, and the second was completed immediately following the presentation of the social comparison information.

**Manipulation checks.** Participants made slashes on a 133-mm line in response to three questions assessing the comparison target. The first question was "How well do you think she is handling her situation?" (endpoints were *very poorly* and *very well*). The two additional questions were "How well is she handling her (life) situation compared to most people her age?" and "Compared to you, how well do you think Dorothy/Lisa is coping (with her life situation)?" The endpoints for both of these questions were *much worse* and *much better* and the midpoint in each instance was *the same*. These questions were asked after the second mood assessment.

## Procedure

**Part I: Remembrance manipulation.** Because many of the participants had limited mobility, they were transported to and from the lab by research assistants. All were run individually. On arrival at the lab, the participants completed a questionnaire containing measures of life satisfaction, health status, and initial perceptions of future well-being. After completing these measures, they were directed to either recall a positive time in their past (remembrance condition) or complete a filler task assessing their concern about a variety of social issues (no remembrance condition). Those in the remembrance condition were instructed to think about a time during their 30s and 40s when they felt they were most competent and capable, that is, at their "all-around peak." These participants were then asked to describe this time in their life by talking into a tape recorder. Participants in the no remembrance condition recorded their views on a social issue (e.g., reducing the federal deficit) on a tape recorder. After making the tape recordings, the women completed the first mood scale. The experimenter then explained that the second part of the study involved listening to a description of a person living in the community. Participants listened to a taped interview in which the comparison target was described by a neighbor. A

written version of the interview was provided for all participants in case they wanted to read a transcript of the tape while listening to it.

**Part II: Social comparison manipulation.** In the same-age, upward comparison condition, the target, Dorothy P, was described as coping very well with aging. She had some physical limitations but was able to look on the bright side and worked actively at staying in touch with friends and family. The taped interview of Dorothy D, in the same-age downward comparison condition, illustrated poor adjustment in the aging process. This target was described as having some physical limitations, being pessimistic about the future, and avoiding social interactions. Finally, in the younger, upward comparison condition, Lisa was described as an attractive young woman who was doing very well with the multiple demands of busy teenage children and a promising career.

At the end of the interview, a second mood assessment was administered and participants were asked to evaluate the target. Participants were then given an additional questionnaire that once again assessed their perceptions of their future well-being and asked a variety of demographic questions (e.g., marital and financial status). Finally, they were debriefed and dismissed.

## RESULTS

### Overview

The results are presented in three sections. The first section includes analyses of the social comparison manipulation checks, the second section presents results concerning the impact of reminiscing and comparison on future well-being, and the third section presents results of the analyses examining the impact of same-age upward and downward comparison on mood.<sup>2</sup> Descriptive information on the dependent variables, the continuous independent variable (i.e., life satisfaction), and the control variables (i.e., health and age), is presented in Table 1.

### Manipulation Checks

Participants' general ratings of the comparison target, as well as their ratings of the comparison target's coping relative to self and relative to most people her age, were significantly different for the three social comparison conditions, as anticipated;  $F_s(2, 102) = 302.41, 163.44, \text{ and } 218.65,$

with  $MSE = 303.41, 280.19, 218.65,$  respectively; all  $ps < .001, R^2s > .76.$  Reactions to the upward targets (same-age and younger) were significantly different from reactions to the downward target on all three questions ( $ts > 15.50, ps < .05$ ). Participants in the same-age upward and younger upward conditions perceived the target to be doing well ( $M_s = 115.03 \text{ and } 103.42$ ), better than themselves ( $M_s = 78.89 \text{ and } 84.53$ ; scale midpoint = 66.50), and much better than others her age ( $M_s = 103.47 \text{ and } 102.89$ ). In the same-age downward comparison condition, the target was perceived to be doing poorly ( $M = 19.76$ ), much worse than the participant ( $M = 18.18$ ), and much worse than other people her age ( $M = 34.70$ ).

### Social Comparison, Reminiscence, and Future Well-Being

A hierarchical multiple regression was conducted to examine the effect of social comparison, reminiscing, and life satisfaction on perceptions of future well-being. Step 1 included the Time 1 measure of future well-being (thus, the analysis effectively predicts change in well-being). Step 2 included age, and to control for participants' perceptions of their health, it also included the health-status composite. These were followed by life satisfaction in Step 3. Two different nonorthogonal contrasts among the social comparison conditions were examined in Step 4 using dummy-coded variables (Aiken & West, 1991). C1 examined the effect of social comparison with the two upward targets: same-age and younger. C2 examined the effect of social comparison with the two same-age targets: upward and downward. Step 4 also included the code for the reminiscence manipulation, with participants who were instructed to think about a positive time in the past assigned a code of 1, and the no reminiscence group receiving a 0. Step 5 included all the two-way interactions: Life Satisfaction  $\times$  C1, Life Satisfaction  $\times$  C2, Reminiscence  $\times$  C1, Reminiscence  $\times$  C2, and Reminiscence  $\times$  Life Satisfaction. Step 6 included the two three-way interactions: Life Satisfaction  $\times$  C1  $\times$  Reminiscence, and Life Satisfaction  $\times$  C2  $\times$  Reminiscence.

#### *C1: Younger versus same-age upward comparison.*

The results from each step of the regression are shown in Table 2. In the final step there were significant main effects for prior well-being and life satisfaction. As expected, individuals with low life satisfaction were generally more responsive to the comparison targets than were those with high life satisfaction (cf. Gibbons & Buunk, 1999). There was also a significant interaction between C1 and life satisfaction. This, however, was qualified by the significant three-way (Life Satisfaction  $\times$  C1  $\times$  Reminiscence) interaction, the pattern of which is depicted in Figure 1. As predicted, in C1, participants with low life satisfaction who spent time reminiscing

<sup>2</sup>Because the first mood measure came after the reminiscence manipulation it was not possible to accurately assess the impact of reminiscence on the women's mood prior to the social comparison manipulation.

TABLE 1  
Correlations, Means, and Standard Deviations

	Time 1 Future Well-Being	Time 2 Future Well-Being	Time 1 Positive Mood	Time 2 Positive Mood	Life Satisfaction	Health Status	Age
Time 1 future well-being	—	.67*	.41*	.45*	.55*	.38*	-.03
Time 2 future well-being		—	.21*	.33*	.30*	.22*	-.07
Time 1 positive mood			—	.59*	.56*	.42*	.07
Time 2 positive mood				—	.55*	.46*	.15
Life satisfaction					—	.59*	.05
Health status						—	-.09
Age							—
<i>M</i>	66.73	76.15	98.00	103.03	30.83	266.64	71
<i>SD</i>	18.56	21.45	15.19	15.77	4.15	70.07	5.90

\* $p < .05$ .

prior to an upward comparison with the younger target (i.e., the primary interaction of interest) responded more favorably to the comparison opportunity than did any other group. We also predicted that high life satisfaction participants would be relatively unaffected by either of the targets. It appears, however, that reminiscing had a negative effect on the perceived future well-being of high life satisfaction women who compared with the younger upward target. An additional analysis of only those participants in the younger upward target condition revealed a significant Reminiscence  $\times$  Life Satisfaction interaction ( $\beta = -.38$ ,  $R^2$  change = .08,  $p < .05$ ), such that for participants with low life satisfaction, optimism about future well-being was higher for participants who reminisced than it was for those who did not. The opposite pattern was true for participants with high life satisfaction.

*C2: Reactions to upward versus downward same-age targets.* As predicted, reminiscence had minimal impact on reactions to comparison with the same-age upward comparison target. Regression analyses restricted to participants in this condition revealed a significant main effect for life satisfaction ( $\beta = -.49$ ,  $R^2$  change = .14,  $p < .01$ ). The main effect for reminiscence and the interaction of life satisfaction and reminiscence were nonsignificant for participants in this condition. In contrast, as expected, the results suggest that reminiscing and life satisfaction were factors in determining how these elderly women responded to the same-age downward target (see Figure 2). In particular, the results of the regression examining only participants in this condition, yielded a significant Reminiscence  $\times$  Life Satisfaction interaction ( $\beta = .79$ ,  $R^2$  change = .13,  $p < .01$ ). The pattern of results was such that reminiscing prior to social comparison resulted in more favorable perceptions of future well-being among participants with high life satisfaction, and less favorable perceptions of future well-being among participants with low life satisfaction.

### Social Comparison and Mood

Mood reactions were also analyzed by means of a hierarchical multiple regression. This analysis was conducted examining positive mood adjectives only (Time 1 and Time 2  $\alpha$ s = .71 and .75). The pattern for the entire mood index was similar but only marginally significant.<sup>3</sup> We predicted a Life Satisfaction  $\times$  Social Comparison interaction on this measure, such that women with low life satisfaction were expected to respond more favorably to comparison with an upward same-age target than a downward same-age target (C2). In contrast, we expected that women with high life satisfaction would be relatively unaffected by comparison with the different targets.

Step 1 of the regression included the Time 1 measure of positive mood. Age and health status were entered in Step 2, and Step 3 included the life satisfaction measure. The C1 and C2 dummy codes contrasting the different social comparison conditions were entered in Step 4. Finally, Step 5 included the interactions between life satisfaction and C1 as well as life satisfaction and C2.

The results of each regression step are shown in Table 3. As expected, the main effect for Time 1 positive mood was significant, as was the predicted interaction between life satisfaction and C2. As can be seen in Figure 3, the pattern of this interaction was such that responses to the same-age, upward target did not differ as a function of life satisfaction. Also as expected, however, there were differences between the high- and low-satisfaction women's responses to the same-age, downward target. Specifically, participants with low life satisfaction reported less positive mood after com-

<sup>3</sup>The tendency for social comparison effects on mood to be more pronounced on positive than negative adjectives has some precedence in the social comparison literature (Ybema, 1994). In this case, the difference in reliabilities between the positive (both  $\alpha$ s  $> .71$ ,  $M = .73$ ) and negative (both  $\alpha$ s  $< .64$ ,  $M = .58$ ) indexes may have contributed to the differential effects.

TABLE 2  
Hierarchical Multiple Regression Predicting Future Well-Being

Variable	B	SE B	$\beta$	t	p <	R <sup>2</sup>	$\Delta R^2$
Step 1						.45	
Time 1 future well-being	.78	.08	.67	9.24	.01		
Step 2						.46	.004
Time 1 future well-being	.80	.09	.69	8.69	.01		
Health status	-.01	.03	-.05	-.57	.57		
Age	-.19	.27	-.05	-.74	.46		
Step 3						.46	.006
Time 1 future well-being	.84	.10	.73	8.28	.01		
Health status	.00	.03	.00	.02	.98		
Age	-.16	.27	-.04	-.59	.56		
Life satisfaction	-2.14	2.11	-.10	-1.02	.31		
Step 4						.50	.04*
Time 1 future well-being	.85	.10	.74	8.49	.01		
Health status	.00	.03	.00	.07	.94		
Age	-.20	.27	-.05	-.75	.45		
Life satisfaction	-2.06	2.06	-.10	-1.00	.32		
C1	-9.34	3.71	-.21	-2.52	.01		
C2	-6.86	3.83	-.15	-1.79	.08		
Reminiscence	-3.53	3.09	-.08	-1.14	.26		
Step 5						.55	.05
Time 1 future well-being	.89	.10	.77	8.94	.01		
Health status	.00	.03	.01	.15	.88		
Age	-.13	.27	-.04	-.49	.63		
Life satisfaction	-7.46	3.07	-.36	-2.43	.02		
C1	-8.36	5.20	-.19	-1.61	.11		
C2	-9.35	5.44	-.20	-1.72	.09		
Reminiscence	-4.43	5.15	-.10	-.86	.39		
Life Satisfaction $\times$ C1	9.56	3.38	.27	2.83	.01		
Life Satisfaction $\times$ C2	8.59	3.97	.20	2.16	.03		
Life Satisfaction $\times$ Reminiscence	-.74	6.03	-.01	-.12	.90		
Reminiscence $\times$ C1	.79	7.32	-.01	-.11	.91		
Reminiscence $\times$ C2	4.18	7.42	.07	.56	.57		
Step 6						.61	.05**
Time 1 future well-being	.87	.10	.76	9.08	.01		
Health status	.00	.03	.01	.11	.91		
Age	.04	.26	.01	.15	.86		
Life satisfaction	-8.40	3.46	-.41	-2.43	.02		
C1	-7.75	4.94	-.17	-1.57	.12		
C2	-6.67	5.21	-.15	-1.28	.20		
Reminiscence	-4.65	4.88	-.11	-.95	.34		
Life Satisfaction $\times$ C1	16.06	4.59	.45	3.5	.01		
Life Satisfaction $\times$ C2	-5.42	7.10	-.12	-.76	.45		
Life Satisfaction $\times$ Reminiscence	3.59	8.45	.06	.43	.67		
Reminiscence $\times$ C1	-.75	6.94	-.01	-.11	.91		
Reminiscence $\times$ C2	1.06	7.09	.02	.15	.88		
Life Satisfaction $\times$ Reminiscence $\times$ C1	-26.52	13.05	-.25	-2.03	.05		
Life Satisfaction $\times$ Reminiscence $\times$ C2	33.83	16.71	.34	2.03	.05		

Note. C1 = same-age upward comparison versus younger upward comparison. C2 = same-age upward comparison versus same-age downward comparison.  
\* $p < .05$ . \*\* $p < .01$ .

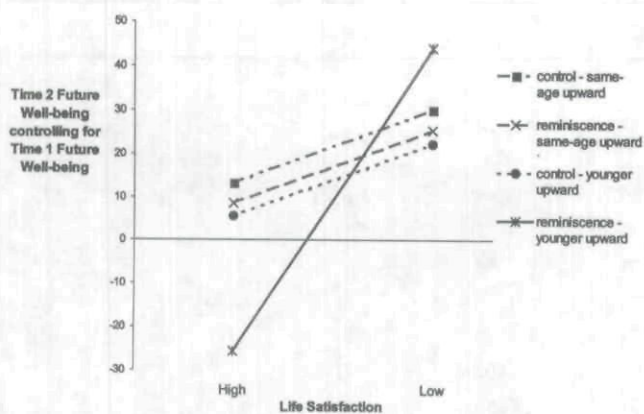


FIGURE 1 Predicting future well-being as a function of upward comparison (C1), reminiscence, and life satisfaction (1 SD above and below the mean).

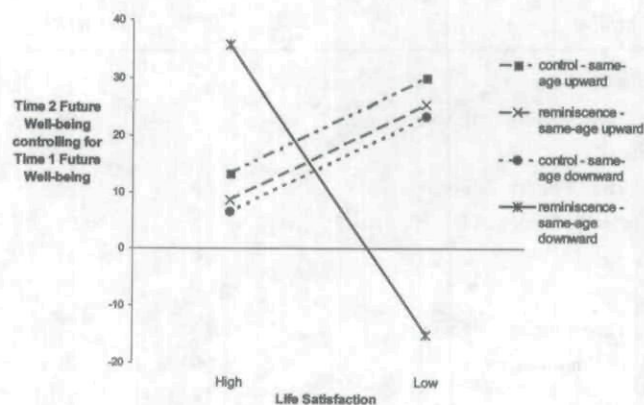


FIGURE 2 Predicting future well-being as a function of same-age comparison (C2), reminiscence, and life satisfaction (1 SD above and below the mean).

TABLE 3  
Hierarchical Multiple Regression Predicting Positive Mood

Variable	B	SE B	$\beta$	t	p <	R <sup>2</sup>	$\Delta R^2$
Step 1						.35	
Time 1 positive mood	.61	.08	.59	7.46	.01		
Step 2						.42	.07*
Time 1 positive mood	.49	.09	.47	5.56	.01		
Health status	.06	.02	.27	3.21	.01		
Age	.38	.20	.15	1.89	.06		
Step 3						.45	.03*
Time 1 positive mood	.40	.09	.38	4.22	.01		
Health status	.04	.02	.17	1.79	.08		
Age	.35	.20	.13	1.72	.09		
Life satisfaction	3.48	1.56	.23	2.24	.03		
Step 4						.46	.01
Time 1 positive mood	.42	.10	.41	4.33	.01		
Health status	.04	.02	.16	1.72	.09		
Age	.33	.20	.12	1.61	.11		
Life satisfaction	3.33	1.56	.22	2.14	.04		
C1	-3.99	2.97	-.04	-.40	.69		
C2	-1.20	2.88	-.12	-1.39	.17		
Step 5						.49	.03
Time 1 positive mood	.46	.10	.45	4.76	.01		
Health status	.04	.02	.16	1.67	.10		
Age	.32	.21	.12	1.60	.11		
Life satisfaction	.16	2.08	.10	.08	.94		
C1	-3.95	2.84	-.11	-1.39	.17		
C2	-1.87	2.96	-.06	-.63	.53		
Life Satisfaction $\times$ C1	4.35	2.60	.20	1.67	.10		
Life Satisfaction $\times$ C2	6.43	2.99	.17	2.15	.03		

Note. C1 = same-age upward comparison versus younger upward comparison. C2 = same-age upward comparison versus same-age downward comparison. \* $p < .05$ .



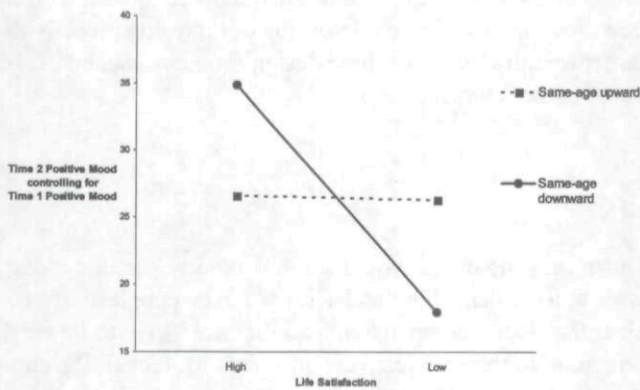


FIGURE 3 Predicting positive mood as a function of same-age comparison (C2) and life satisfaction (1 *SD* above and below the mean).

paring with a downward target than did those with high life satisfaction.<sup>4</sup>

## DISCUSSION

### Reminiscence and Future Well-Being

The results of this study suggest that reminiscing does have an impact on how elderly women respond to social comparisons, especially among those who are relatively dissatisfied with their current life status. First, as anticipated, reminiscing resulted in improvement in expectations for future well-being among low-satisfaction women after social comparison with a successful younger target. It would appear, then, that thinking about a positive time in one's past life is particularly adaptive for those who are dissatisfied with their current situation. We suspect that was because the reminiscence enabled these women to use their former selves as the focus for the comparison and this buffered them from any discomfort that might be associated with the upward comparison (Brickman & Bulman, 1977).

The opposite was true for the comparable high-satisfaction group. In fact, with one notable exception, the low-satisfaction women generally responded more favorably to the reminiscence than did the high-satisfaction women. When women in the same-age downward comparison condition were excluded, the interaction between life satisfaction and reminiscence was significant  $F(1, 67) = 6.37, p < .02, M$  improvement

in well-being after reminiscence for the low-satisfaction women = 18.50 versus 0.02 for the high-satisfaction women,  $t(67) = 3.56, p < .01$ ; there were no differences between the two satisfaction groups in change in well-being if they did not reminisce,  $M_s = 13.08$  versus  $13.17, p > .05$ . We did not anticipate this finding, but in retrospect it makes sense and has implications for interventions that involve reminiscence. Those who are dissatisfied with their current lives are likely to benefit most from reminiscing about a happier time in the past—as long as it is not followed by a negative reminder of the current and future possible self in the form of a same-age, downward comparison. On the other hand, those who are satisfied with the way things are now may not be particularly interested in being reminded about the fact that their situation was better 30 or 40 years earlier. If this is accurate, and currently satisfied women do (sometimes) find reminiscence with a positive former self to be uncomfortable, it stands to reason that this reaction would be exacerbated by subsequent social comparison with a younger person who was doing well. That seemed to be the case. It would appear, then, that some kind of temporal comparison—current with former self—is mediating these reactions. Future research should examine this type of social comparison and its impact, experimentally.

The obvious exception to this pattern (see Figure 2) occurred among participants who, after reminiscing, heard about a similar target who was doing poorly. The low-satisfaction women responded negatively to this comparison whereas the high-satisfaction women responded positively. We suspect that the reactions by the two groups may reflect a type of identification and contrast with the target (Buunk & Ybema, 1997), which was amplified by the reminiscence. Buunk and Ybema suggested that downward comparisons are not likely to produce favorable reactions, and may even be threatening, when comparers are unable to contrast themselves with the target. In this case, a different kind of contrast may have occurred, that between a positive former self and a negative future possible self, as reflected in the similar target who is having difficulty. Interestingly, when the positive former self was not made salient, the social comparison with the threatening target did not affect perceptions of future well-being.

The reaction of the high-satisfaction women in the downward comparison condition was quite different from their low-satisfaction counterparts. In particular reminiscing did appear to facilitate their ability to contrast with the similar, downward target. Once again, it is possible that temporal comparison, in conjunction with social comparison, may have been a factor. In other words, these women may have acknowledged their decline over the years, but then realized that they were still better off than many in their age cohort ("I may be worse than I was, but there are many who have it a lot worse than I do"). Determining when reminiscence does and does not produce a temporal comparison contrast (i.e., make decline salient) appears to be an important question for future research in this area.

<sup>4</sup>An analysis of just the Time 1 mood index revealed no main effects or interactions involving reminiscence (all  $F_s < 3.30, p_s > .05, d_s < 0.26$ ). This suggests that the effect of social comparison on change in mood (i.e., the same-age Social Comparison  $\times$  Life Satisfaction interaction) was not contaminated by the effects of reminiscence on the first mood index.

## Mood

The pattern of responses on the mood measures was generally consistent with expectations, and that pattern was different than that typically found in earlier downward comparison work with college students. In particular, downward comparison had a more negative impact on the low-satisfaction women than did upward comparison, whereas the opposite pattern has often been found among threatened college students (Aspinwall & Taylor, 1993). We suspect that identification may again be a factor. In particular, elderly persons, perhaps regardless of how well they are currently doing, may find it difficult to contrast with similar others who are having trouble. Rather than feeling relief or encouragement after downward comparison (cf. Gibbons & Gerrard, 1991), they may experience empathy or fear, as has been suggested in some previous downward comparison studies (see Buunk & Ybema, 1997, for a review).

It is also possible that upward comparisons may, in general, have less impact on elderly persons than downward comparisons. Identification with upward targets may be more difficult than with downward targets, because decline seems more likely (inevitable) than does improvement. Although we are not suggesting upward comparisons are not impactful for elderly persons, we suspect the factors that mediate (and moderate) this impact are more complex than those involved in downward comparison. Future research should attempt to discriminate among these different kinds of emotional responses, paying particular attention to the extent to which participants identify and contrast with comparison targets.

## Limitations

A limited participant pool and a desire to minimize participant burden resulted in several methodological compromises that could be rectified in future studies. A more diverse sample of elderly persons would be desirable. In particular, we suspect that social comparison processes with younger and older targets may be different among elderly individuals who are more isolated than this sample, in part, because they are less common. In addition, an adequate number of men in the sample would make gender comparisons possible (see footnote 1). Similarly, other variations in participants, such as ethnic group and living condition, would allow for increased understanding and generalizability.

Second, it would be preferable to employ a more complete design that included reminiscence, and both age of target and direction of comparison as orthogonal factors. Similarly, mood merits consideration as a primary dependent variable rather than a nested measure, as was the case here. Finally, single-item measures (but as repeated measures), such as the well-being measure used here, raise some questions about reliability. In short, we view this study as a start—although a

promising one—in examining an important question in a new area that is definitely deserving of more attention. With larger samples, many of these design problems can be overcome in the future.

## Conclusions

Given the amount of time that many elderly persons spend with other older adults and with younger people it seems clear that social comparison processes are likely to be very important to their subjective well-being. Moreover, the current results suggest that reminiscence about the self at an earlier time may be an important moderator of reactions to frequent comparisons, especially those that involve younger people. In this regard, reminiscence interventions have been applied to help elderly people cope with the difficulties of growing older. Community programs, such as the American Association of Retired Persons Reminiscence Program (Davis, 1995), for example, as well as controlled research studies (cf. Rybarczyk, 1995), continue to cultivate this naturally occurring phenomenon. As the population continues to grow older, additional research is needed to enhance our understanding of how reminiscing influences affective and cognitive responses to the inescapable social comparisons that potentially challenge older people's sense of well-being.

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