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Older Adults, Social Techniques, and Memory

Karla K. Ziegenbalg, Ph.D.

Karla Ziegenbalg, PhD, is a General Psychology researcher who specializes in social psychology, with an emphasis on memory and the older adult population. Her interest in memory and aging began during her graduate student days while working at the Setting Priorities for Retirement Years (SPRY) Foundation in Washington, DC. Her research was conducted with the assistance of the Virginia Center on Aging's Elderhostel Program in Ft. Monroe, Hampton, Va.

Educational Objectives

1. To use a social psychological perspective to examine memory abilities of older adults.
2. To understand in what ways the social environment, through direct social interaction, affects the memory performance of older adults.
3. To find out what, if any, social factors support memory performance in older adults.

Background

The effects of social interaction on memory performance, in general, are little understood, while even less is known about how social interaction affects the memory ability of older adults specifically. The general consensus among laypersons and scientists alike is that the decline in memory abilities of older adults makes them vulnerable to memory problems that may affect their daily functioning and competence levels. If this is the case, then ascertaining what, if any, factors support memory performance in older adults would be the logical goal.

Case Study

Forty older adult (>65 yrs) and forty younger adult (<65 yrs) subjects were shown a biographical documentary film using video equipment. The video was shown in either a classroom or social event environment. Performance on memory and learning was assessed using post-exposure survey instruments (questionnaires) that were created with an eye to providing classroom-style quizzes with unambiguous memory questions regarding information that was presented in the video. Subjects were tested in two ways; first, as individuals, by giving them Questionnaire #1 and asking them to respond to the questions singly (as per a classroom-style quiz); second, as a member of a pair, with two subjects putting their heads together to respond to Questionnaire #2. The experimental paradigm was created to parallel the research of Dixon (1993), and yield evidence regarding his finding that older adults' memory performance increases to near young adults' performance when they are tested as (married) pairs.

The results of this experiment suggest that older adults may increase their memory performance through social collaboration with a partner, as do the younger adults (older adult mean percentage increase = 92.2%; younger adult mean percentage increase = 70.9%, $p = .062$). Another important finding of this study is that the enhanced performance of older adult pairs tends not to be related to the degree or nature of the attachment, or to the length of the relationships. Many of the pairs in both age groups were married couples, and data were collected on length of their relationships. The length of the relationship was then considered as a potential support factor, and the possible effect of a long-term attachment relationship on the subsequent increase in memory performance scores was evaluated as well.

Interpretation and Discussion

The results of this research confirmed the principal expectation that older adults would increase their memory performance in the paired recall situation (72% of the older adults scored higher in the paired condition). Who profited more from the shift from individual to collective remembering? In terms of memory performance score, more of the younger adults (97%) increased their memory performance than did the older adults. However, a closer look at the data using percentage increase of scores (older adult mean increase = 92.2%; younger adult mean increase = 70.9%) reveals that both older adults and younger adults improve substantially from the paired situation.

Both older and younger adults were gaining a valuable memory resource in their partner, since the presence of a social collaborator made a marked difference in their ability to answer the questionnaire correctly.

Among the couples, there appears to be no significant difference in the increase in scores between the couples who have been together more than two years, and those who have been together for less than two years ($p = .176$).

The fact that memory enhancement did not seem to be dependent upon being in a long-term relationship with a partner or spouse is important information for older adult caregivers, and may have practical applications for older adult learning programs. In an older adult learning environment such as Elderhostel, one can easily envision using the simple intervention of asking the older adults to find a study partner to attend the classes with them, when comprehension of some particular content is desired.

The surprising finding that long-term attachment does not play a large role in the subsequent memory performance of older adults in the paired condition may make sense when it is taken into account that well-acquainted friends may function with the same level of social skill as long-term couples. Moreover, the finding that friends may help each other's memory performance to the same degree as attached couples may simply expand the known boundaries of the benefits of social interaction in a recall situation. Easy conversation in a relaxed setting with a well-acquainted partner may be a key to enhanced memory performance, with neither the length of the relationship nor the nature of the attachment that defines the relationship being critical.

It may be that the key to understanding the benefits of social interaction on memory performance lies in familiarity, rather than mode of attachment or longevity of relationship. Interestingly, Dixon & Gould (1998) found that older and younger adult married couples performed equivalently in the proportion of items they answered correctly in a knowledge-of-spouse set of questions. Extrapolating further along these lines, it is possible that familiarity among friends may provide the bedrock for smooth social interaction, which Dixon & Gould term “expert interaction.” So, expert interaction between friends rather than the individual’s married status may be central to memory enhancement. Future research with married couples, friends, and unacquainted pairs using similar stimulus materials with a sharper focus on the particular details of the moment by moment interaction would do much to elucidate this issue.

The finding of improved memory through pairing may yield beneficial results for older adults if applied research is undertaken. For instance, studies examining the memory performance of older adults confronting difficult situations requiring immediate, high-level memory performance might show enhanced memory performance if the older adults confronting the situation are with either a spouse or a friend who might provide expert interaction. Investigating such applied situations as mental and medical health care interventions for older adults could generate valuable results, leading to better and more efficacious intervention techniques. For instance, one might perform experiments to determine whether pairing older adults with partners who are briefed together (as a pair) on a medication schedule by a health practitioner would produce an effect upon medication compliance. If so, were the effects dependent upon characteristics of the pair such as health or cognitive status, etc?

The results yield strong support for the concept that social collaboration is helpful for increasing memory performance by both younger and older adults, with older adults gaining a larger percentage benefit to their scores from the interaction than the younger adults.

The results reported here also add support to the view that social interaction is a foundational aspect of memory. Investigating how older adults actively use social resources while they are remembering should be a high priority for further research.

Study Questions

1. Discuss the possible ways in which social collaboration with a partner may be used in different older adults environments, for example, a therapeutic setting, to support and assist memory performance for older adults.
2. In a social context with a collaborator, does it matter if the two (or more) collaborators know each other well? If so, does a long-term attachment relationship support enhanced memory performance better than do other types of relationships?

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