Self-Reported Memory as a Function of Clinical Versus Everyday Memory Tasks

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Self-Reported Memory as a Function of Clinical Versus Everyday Memory Tasks

A Thesis
Presented to
The Faculty of the Department of Psychology
The College of William and Mary in Virginia

In Partial Fulfillment
Of the Requirements for the Degree of
Master of Arts

by
Carmella M. Prescott
1990
This Thesis is submitted in partial fulfillment of the requirements for the degree of

Master of Arts

Approved, May 1990

Deborah G. Ventis
Martin N. Bauer
Peter L. Derks
E. Rae Harcum
DEDICATION

This manuscript is dedicated to those individuals who have provided me with a firm foundation on which to develop: my parents, Lawrence and Dianna Prescott, Sr., my grandparents, who provided much inspiration, William and Doreen Prescott and Lester and Audrey Barker from Indiana, and to my first professor of psychology, Richard Metzger.
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Abstract

This study was designed to explore the complex relationship between objective and subjective measures of memory as they pertain to self-assessment of memory in community-dwelling older adults. Sixty-eight participants (M = 71 years, SD = 6) from a small midwestern community were administered the Geriatric Depression Scale, the Self-Report Memory Questionnaire, a brief survey of demographic information, portions of the Wechsler Memory Scale-Revised (Paired Associates and Logical Memory), and everyday memory tasks in their own homes. Several Everyday Memory tasks included physically locating specific items (e.g., house keys and a pair of scissors) while the experimenter was present. As an additional task, the following day the experimenter called the subjects and asked them to describe what they had worn during the interview the day before. A stepwise multiple regression analysis was performed to determine what factors best predicted self-assessment of memory. The nine predictors entered into the analysis include age, actual and perceived health, gender, education level, occupation, and level of depression, as well as, the clinical and everyday memory tasks. The regression analyses suggested that self-report of memory function is predicted by the level of education and perceived health of the participants. The clinical and everyday measures of memory did not effectively predict individual self-report of memory. The results found are consistent with the literature on memory assessment. Implications of the apparent presence of three different memory assessments is discussed.
SELF-REPORTED MEMORY AS A FUNCTION OF CLINICAL VERSUS EVERYDAY MEMORY TASKS
Self-reported Memory as a Function of Clinical Versus Everyday Memory Tasks

The assessment of memory is central to the evaluation of cognitive functioning in the elderly because so many other cognitive functions, such as judgement, depend to some degree on memory (Yesavage, 1984). Traditionally, psychologists have depended upon self-report of memory complaints and clinical measures of memory functions as assessment instruments. However, the use of relevant testing materials designed specifically for older adults is suggested by geropsychologists for the most accurate assessment of elderly memory functioning.

It has been recognized that including measures of everyday memory (e.g., recalling familiar names and faces, and daily appointments and addresses) would be beneficial in determining how memory deficits affect the individual's everyday activities. The foundation of everyday memory research is based upon theories that stem from the information-processing and contextual models of memory that have been the dominant approaches to laboratory investigation of cognitive processes (Atkinson & Shiffrin, 1968; Hultsch, 1977).

Models of Memory

The information-processing model is based upon an organismic metamodel which supports the view that an
age-related decrement is balanced by the individual's compensatory processes. According to the information-processing theory, the individual is an active participant in the learning and decision-making processes, and information flows through several hierarchically dependent channels--encoding, storage, and retrieval. Each channel can be analyzed separately and can be broken down further into component functions. For example, the stage of storage includes a sensory memory, a short-term primary memory, a long-term secondary memory, and a tertiary memory of remote information. The majority of past research has shown that age-related decline in sensory memory (Cerella, Poon & Fozzard, 1982; Walsh, 1976), primary memory (Botwinick & Storandt, 1974; Craik, 1968; Erber, 1982), and tertiary memory (Botwinick & Storandt, 1974; Erber, 1981) is minimal.

Contrary to the findings that show that sensory, primary, and tertiary memory are relatively unaffected by age, secondary or recent memory for newly learned information has been demonstrated to decline significantly with age (Poon, Walsh-Sweeney, & Fozzard, 1980; Schonfield & Robertson, 1966). Clinical/laboratory tasks that involve the use of secondary memory include immediate and delayed recall of paired-associates, pictorial designs, lists, and
paragraphs. Craik (1977) and Poon, Waugh, and Barr (1982) have suggested that deficits in the encoding and retrieval stages of information-processing account for the decline in secondary memory. Therefore, improving the efficiency of the two processes will subsequently maximize memory for recent events. Much research has been directed toward improving these secondary memory processes in all age groups. Thomas and Ruben (1973) found that retrieval of paired-associates improved if elaborate organized instructions were given to the subjects before beginning the task. Smith (1977) inserted semantic (category labels) and structural cues (letters) to assist in the recall of items. Cues that were presented when the target item was initially learned improved the retrieval (recall) of the item after a time delay. Practice (Treat, Poon & Fozzard, 1981) and self-regulation of pace (Canestrari, 1963) also resulted in an increase in recall of information.

Use of familiar or meaningful material is another strategy that has been used to improve memory for recent information. This method is based upon a contextual model which supports the view that aging is nondecremental. Performance depends on what is relevant in the context of the situation. When the material to be remembered is sorted differentially by salience to the elderly, memory performance differs
between older and younger subjects. Hanley-Dunn and McIntosh (1984) demonstrate this difference by presenting younger and older adults with names in four conditions: meaningful to elderly, meaningful to young, cohort meaningful, and nonmeaningful. Both age groups performed similarly overall. The older adults better recalled names from the elderly-meaningful and cohort-meaningful conditions. The young adults did better under the young-meaningful condition. Both groups demonstrated the same amount of recall of nonmeaningful names. Moenster (1972) used meaningful and nonmeaningful paragraphs rather than a list of words or nonsense syllables, and used a longer retention interval. The researchers found no significant recall difference between young and old adults. Thus, salience of material to be remembered improved recall across age groups.

Howell (1972) completed the most extensive study of meaningful material. He investigated the extent to which perceptual recognition is related to meaningfulness and familiarity of the stimulus, the age of the subject, and the interaction of the above. Subjects were presented with different classes of pictorial stimuli (neutral, generational and contemporary). Perceptual accuracy in the recognition of visual displays of photographs of patterns and
objects was generally lower in the performance of older adults compared to the younger adults. Older subjects had little problem with the generational characters that were simple. There were significant main effects in the perceptual accuracy of visual stimuli for age and meaningful materials. Therefore, the accuracy of the perceptual recognition for the older adults is related to the meaningfulness and familiarity of the stimulus material. Also, the contextual complexity of the visual stimulus affects the accuracy with which the elderly can recognize photographs of subjects. In general, memory studies across age groups demonstrate that meaningful material is best recalled but data show its use is more beneficial to older adults than to younger adults. Therefore, the use of relevant testing materials designed specifically for older adults is suggested to increase the accuracy of assessment of elderly memory functioning.

**Everyday Memory**

Studies of familiar and meaningful materials have led to research about secondary memory processes involved in everyday activities (Crook & Larrabee, 1988; Neiser, 1978; Smith & Winograd, 1978). Wilson and Moffat (1984) suggest that laboratory-based tests used in current usage do not reflect information about an individual's everyday memory functioning. By
implication then, if tests of memory are to have clinical utility, they should be similar in content to everyday life activities because people base their self-assessments upon past performance of everyday tasks, such as recalling phone numbers, names and faces, where keys and eyeglasses were placed, etc. (Garfunkel & Landau, 1981; Zarit, 1980).

Few experimental studies concerning everyday memory have been carried out. Studies that have been published are mostly about spatial memory (Baroni, Job, Peron, & Salmaso, 1980; Perlmutter, Metzger, Nezworski, & Miller, 1981); the majority of the remaining studies have been about prospective memory (Lay, 1978; Moscovitch, 1982; West, 1984). Sinnott (1986) conducted a study adhering to the contextual model in which the researcher followed participants through their daily routines for two and a half days at a research facility. Variables measured included, route recall to center, dayroom, and cafeteria; and recall of dinner hour, instructions and meal payments. The results suggested that everyday memory performance is influenced by salience and context. Investigators of everyday memory to date also suggested that motivation of the individuals is important.

McCarthy, Ferris, Clark, and Crook (1981) designed a shopping list task, which was a recall list composed
of ten common food items that can be purchased in a supermarket. Crook, Ferris and McCarthy (1979) created a visuo-spatial memory task based on complaints about placing an object in a room and then later forgetting where the object was placed. In this task, subjects place representations of common objects (glasses, keys, books, etc.) into various rooms of a representation of a ten room house. The subject must recall where the objects were placed. Larrabee and Crook (1989) incorporate several learning paradigms into a computer program of everyday memory test performance. The memory battery consists of the following tasks: telephone dialing, with and without interference; name-face association, immediate and delayed recall; recognition of faces with signal detection, with and without delay; associative learning of first and last names; selective reminding using a 15 item grocery list; and incidental memory for a radio broadcast.

**Clinical Measures of Memory**

Crook, Bartus, Ferris, Whitehouse, Cohen, and Gershon (1986) suggest that behavioral deficits resulting from memory impairment may become more serious than poor recall of everyday memory activities and extend to more critical issues involving problem-solving, concept formation, and intelligent decision making. Therefore, objective clinical memory measures
are relevant for detecting gross decrements in elderly memory function that may indicate overall organic dysfunction and decline. Common clinical measures used to evaluate secondary memory processes include the: a) Benton Visual Retention test (Benton, 1974), b) Logical Memory subtest (immediate and delayed recall of a paragraph) of the Wechsler Memory Scale, Russell revision (WMS-R) (Russell, 1979; Wechsler, 1987), c) Associate learning test of the WMS-R, d) Fuld's (1980) Object Memory Test, and e) Facial Recognition Task of unfamiliar faces (Ferris, Crook, Clark, McCarthy, & Rae, 1980).

An individual's performance on a memory test is a sample of that person's behavior. Clinical memory tests provide behavioral samples of memory functions under artificial, abstract conditions. The clinician must then infer how hypothetical strengths (weaknesses) are related to the person's functioning in their everyday living. Everyday memory assessment may assist clinicians in increasing the accuracy of their inferences from clinical measures to the individual's everyday life.

**Self-assessment of Memory**

Although objective memory assessment is essential, it is equally as important to study self-assessments of memory problems of individuals because memory
complaints draw attention to developing problems (e.g., dementia), and can be useful in differentiating depression from dementia (Gilewski & Zelinski, 1986). Such assessment also provides a basis for judging if, and how, formally assessed memory problems are manifested in everyday individual behavior affected by memory problems. It is also important to distinguish between pathological and normal aging because the elderly are at risk for a number of specific disorders that are treatable. Therefore, it is necessary to distinguish between mild and benign cognitive changes of normal aging from more severe disruption of functioning to distinguish between treatable and nontreatable causes of impairment (Zarit & Zarit, 1983). Detailed and accurate assessment of the value of memory complaint may facilitate treatment of reversible cognitive impairment.

McEvoy and Moon (1978) suggested that discrepancies between one's self-report and actual memory performance are the result of belief in age stereotypes and depression. Jackson, Bogers, and Kerstholt (1978) also suggest that self-report may be influenced by a response bias in the elderly caused by their greater sensitivity to memory failures and their tendency to conform to negative stereotypes about aging.
The validity of self-rating measures of memory has been questioned because some of the items are not relevant to an older population (Zarit, Eiler, & Hassinger, 1985). In spite of any possible drawbacks, self-reports continue to be useful in presenting a straightforward estimate of the frequency and severity of current memory complaints. Several self-rating memory questionnaires have been reviewed by Gilewski and Zelinski (1986). The most reliable measures include Dixon and Hultsch's (1983) Metamemory in Adulthood, Gilewski, Zelinski, & Thompson's (1983) Memory Functioning Questionnaire, and Reige's (1982) Memory Self-Report Questionnaire.

The literature involving the degree of accuracy with which older persons appraise their own memories is contradictory. Some research suggests that older persons are more accurate in appraising memory than young adults (Herzog & Rodgers, 1989; Hulicka, 1982; Martin,; Riege, 1982), while other research demonstrates that older persons do not assess their memory functions well (Herzog & Rodgers, 1989; Lowenthal, Berkman, 1967; Perlmutter, 1978; Schaie & Schaie, 1977; Zarit, 1980; Zarit, Cole & Guider, 1981). Rabbitt (1982) found a correlation between self-report and memory performance for participants whose ages ranged from 58 to 82 years. Zelinski,
Gilewski and Thompson (1980) found a greater relationship between self-report and memory functioning. Zarit et al. (1981) found that people tend to underestimate their actual memory abilities, especially if they are depressed or physically ill. They suggested that older adults are more sensitive about memory failures. In their study, half of the community and two-thirds of psychiatric patients stated memory difficulties but their complaints did not correlate with tests of memory scores. They further stated that the cause of the deficits were organization of new information, mediation techniques, familiarity with stimulus materials, time limits, and distractions.

Although depression is a factor in individuals' evaluation of their memory performance (Kahn, Zarit, Hilbert, & Niederehe, 1975; O'Hara, Hinrichs, Kohout, Wallace, & Lemke, 1986), there has been disagreement about its effect on actual memory performance. Sternberg and Jarvik (1976) found that depressed individuals performed significantly less well on short-term memory tasks than nondepressed persons. O'Hara et al. (1986) found no difference between objective performance of depressed and nondepressed persons.

Gilewski and Zelinski (1986) propose that the source of these conflicting results in the literature may be in the tasks themselves. Schaie (1988) agrees
that the nature of the objective memory tasks facilitate the differences between self-report and objective measures of memory. Changes over generations in educational and cultural variables places elderly individuals at a disadvantage when presented cognitive tasks. Some measures of memory performance such as memory for text, delayed tasks, and historical facts seem to be consistently related to memory self-assessments, but tasks such as word lists are less likely to be related to memory complaints. Herzog and Rodgers (1989) suggest that memory ratings reflect more about individual performance than objective ratings.

Present Study

The present study was designed to determine if older persons' performance on multivariate memory tests, clinical and everyday, can predict their self-assessment of memory functioning. Are memory difficulties demonstrated in objective memory tests perceived as problems of remembering? Other personal and demographic variables were included in the analysis to determine any predictive value they might possess.

Method

Subjects

Seventy persons (26 males, 42 females), between the ages of 60 and 87 ($M = 71.36$ years, $SD = 6.35$)
years) were solicited from social groups (church and sorority), volunteers from a community hospital (Red Coats and Pink Ladies), and retirement communities in a small midwestern town. All participants were older adults living independently in their own households (apartment or house). The sample was middle class and well educated (5% less than high school, 48% completed high school, 47% completed some college).

**Materials**

The participants received an information packet to complete containing a confidentiality statement, consent form, health questionnaire, socio-economic status information, depression scale, and a memory self-report (See Appendix A). Health status was obtained from a self-report questionnaire (Gray, 1987). Participants rated their perception of their health compared to their peers on a 5-point scale ranging from "much better" to "much worse". They also checked all the health problems listed that applied to themselves. The Geriatric Depression Scale (Yesavage, Brink, Rose, Lum, Huang, Adey, & Leirer, 1983) was administered to assess level of depression. Subjects indicated whether the 30 statements applied to themselves. Subjects also indicated their level of education and present or former occupation.

**Self-assessment measure.** Self-assessments
were accomplished with Reige's (1982) Memory Self-Report containing 30 questions about memory performance. This particular instrument was chosen based upon a review of memory self-assessment questionnaires by Gilewski and Zelinski (1986). The reviewers cited its brevity and usefulness with the elderly population. Twenty questions are separated into independent categories of short-term, interfered, perceptual, and imaginal reminding. Ten questions are fillers. The subjects rated the memory statements on a 4-point scale ranging from "Almost never" to "Almost always." A "Not Applicable" response was added to questions when appropriate.

**Everyday memory tasks.** For the everyday memory tasks, the participants were asked to physically locate five items (keys, shoes, scissors, wallet, and a screwdriver) within their household. In addition, the experimenter called each participant the day after the initial session and asked each to describe what he or she was wearing during the meeting with the researcher the day before.

**Clinical memory tasks.** Clinical measures included Logical Memory, parts one and two (paragraph recall, immediate and delayed), from the WMS-R, and Associate Learning test, parts one and two (recall of word pairs, immediate and delayed recall), from the WMS-R.
Procedure

The researcher met with each consenting participant in his or her home at an agreed upon appointment. The meeting took approximately one hour of the person's time. The researcher attempted to create a relaxed atmosphere by ensuring confidentiality and by maintaining a pleasant rapport. The participants completed the questionnaires and engaged in memory tasks in their own homes so to reduce any stress that might have occurred if the person was requested to come to an office. It was hoped that the home setting should induce a more relaxed and non-threatening situation. The researcher verbally encouraged relaxation and comfort. Words such as "test" and "failure" were avoided. The everyday measures were presented before the clinical measures because they appear to be less threatening to the elderly participants. To view the actual instructions see Appendix B.

One score was obtained each for the GDS and the memory self-report. The scores for each assessment category were collapsed (Clinical Memory = Paired Associated and Logical Memory; Everyday Memory = Object Find and Clothing Recall) to create a single index score for each type of measure.

Results
Data from 68 participants were useable. Two sets of data were excluded because of interference by spouses. Correlations were performed on the subtests of the memory measures (See Table 1). Logical Memory I was positively correlated with Logical Memory II (r = 0.88, p< .01), Paired Associates I (r = 0.56, p< .01), Paired Associates II (r = 0.55, p< .05), and Object Find (r = 0.25, p< .05). Logical Memory II also was positively correlated with Paired Associates II (r = 0.55, p< .05). Paired Associates I and II correlated positively with each other (r = 0.75, p< .05). The everyday measures of memory, Object Find and Clothing Recall, demonstrated a positive correlation (r = 0.82, p< .01) with each other. None of the subtests presented significant correlations with self-report.

Table 2 presents the correlations among all the variables. There was a positive correlation between level of education and self-report of memory (r = 0.24, p< .05) which suggests that individuals with higher levels of education positively evaluate their memory on a self-report questionnaire. A negative correlation was discovered between perceived health and depression (r = -0.30, p< .05). That is to say, that those who felt they were in poor physical health also rated themselves as depressed. A third correlation was found between perceived health and self-report of memory (r =
0.21, p< .05). This relationship suggests that individuals who see themselves as healthy compared to their peers, also believe they have a good memory, as well.

A stepwise multiple regression analysis was performed to determine the contribution of all independent variables in predicting self-assessment of memory as measured by Reige's (1982) Memory Self-report. The nine predictor variables used were clinical memory (portions of WMS-R), everyday memory (object find and clothing recall), age, occupation, education attained, level of depression, gender, number of health problems, and perceived health. The criteria for controlling the inclusion of variables into the final regression were set at 0.15 (inclusion) and 0.15 (exclusion). These nine variables were entered first to compete among themselves. Two predictors, education and perceived health, were found to be predictors of the individual's self-assessment of memory. To arrive at the most parsimonious explanation of the variables underlying memory functioning, a second analysis was done, using the two variables that had entered significantly into the regression equation. The two variables accounted for 9.6% of the total variability ($R^2 = .096$) in self-assessment of memory functioning (see Table 3). Education was the more powerful
predictor, accounting for 5.6% of the variance, followed by perceived health, accounting for an additional 4.1%. Participants with higher scores on self-report measures tended to be better educated and perceived themselves as healthier than their peers.

An item analysis of the Memory Self-Report statements with all variables was performed. Correlations between each statement from the Self-Report and the items from the Clinical and Everyday Memory tasks were studied. This analysis confirmed that subjects accurately appraised their ability to recall what clothes they were wearing the day before, by demonstrating a positive correlation \( r = 0.77, p < .05 \) between the statement in which the participants rated their ability to recall what clothes they had worn the day before and the Everyday Memory Clothing Recall task of reporting what they had worn the day of the interview. However, the correlation between Object Find and the statement in which subjects rated their ability to located items within their households and the correlation between the Paired Associates and the statements concerning short-term memory were all insignificant.

Discussion

This researcher proposed to incorporate everyday measures into clinical assessment batteries. Although
it was expected that either everyday measures of memory or clinical measures would effectively predict self-report of memory functioning, the present data did not support this hypothesis. Neither clinical memory nor everyday memory measures predicted the subjects' self-report of memory, nor did they significantly correlate with the self-report measures except in the case of remembering what clothing they wore the day before. The stepwise regression indicated two variables, education and perceived health, as predictors, not the objective memory measures. Neither of the two variables explained much of the overall variance.

The correlation between how individuals perceive their health as compared to others and self-report of memory suggests that individuals possess a schema about themselves that influences self-evaluations. This schema also may be influencing how people of different education levels evaluate their memory functioning. The present results demonstrated that individuals with higher education presented positive evaluations of their memory. It is interesting to note that although level of education and Memory Self-Report correlated, education did not correlate with objective measures of memory.

As a behavioral observation, the researcher noted that the male participants appeared more defensive
about the three tasks than the female participants. They were likely to refer to the Self-Report measure and the tasks as "stupid". Participants who were encountered outside the research setting reported to the researcher they had found ways to recall the items from the clinical tasks. It appears if the individuals are given enough time and practice, the clinical measures may be mastered as well as the everyday. The people must be given time to be self-motivated to learn seemingly meaningless materials. Therefore, this observations suggests that everyday and clinical measures of memory are on a continuum.

Many of the subjects reported that they kept their possessions in the same special location so that it would be easier to locate the item the next time it is needed. West and Walton (1985, cited in West, 1986) also noted that subjects were confident where objects were located because they kept them in the same location. Intons-Peterson and Fournier (1986) found that older subjects used external aids more than young subjects in their study. The present study did not demonstrate a correlation between the subjects' evaluation of their ability to recall the location of objects and actual ability to locate household objects. Also, some subjects found the clothing recall task to be simple because they wore the same outfit the day of
the interview and the day after the interview. The participants in the present study accurately evaluated their ability to recall clothing worn a day earlier. In both of the above cases the subjects have used methods to aid recall. Use of such methods could explain why age deficits are not as prevalent on practical tasks as they are in laboratory tasks.

It is not proposed that clinical, laboratory-based measures be replaced with everyday measures of memory. Nor is it proposed that studying memory exclusively in a real world setting is the way to study memory. Crowder and Banaji (1989) express fear that everyday memory researchers intend to replace laboratory-based assessments. It appears as though self-report, clinical memory and everyday memory measure three different aspects of the individual's memory functioning. It may be useful to use all three to obtain a clear clinical picture of an individual's memory functioning. Eis dorfer (1986) suggested that clinicians need to assess older adults fully to diagnose disorders, to ascertain the individual's ability to function independently, work and perform everyday activities, and to establish baselines for intervention.

Clinical memory taps more specific disorders of memory. Clinical assessment may ferret out memory
problems not noticeable to the individual (self-report) or visible in daily functioning (everyday memory), but may portend eventually more serious problems. Gallagher, Thompson, and Levy (1980) listed problems with testing instruments when used with the elderly. They criticize the inability of tests to discriminate at lower levels of functioning, the inappropriate content of items, representative problems, improper standardization, lack of normative data, poor reliability and external validity, and motivational difficulties. McFarland, Warren and Crockard (1985) recommend provision of appropriate context and motivation to improve memory performance.

Zarit, Eiler and Hassinger (1989) noted that clinical assessment entails an additional inferential step for predicting an individual's actual life experience for everyday tasks from the cognitive ability examined. Therefore, everyday memory could be used as a preliminary assessment tool to measure how an individual functions in his or her daily life. For accurate memory assessment, everyday measures need to be researched more so that a larger variety of tested and standardized methods are available for the clinician.

Hartley, Harker and Walsh (1980) suggest we need to systematically examine the types of learning and
cognitive demands in daily life. They further suggest that ecologically valid research initially be based on ethnographic techniques in which categories of behavior are generated, the amount of time behavior is engaged be measured, and cognitive behavior should be grouped according to what cognitive abilities are needed to accomplish them.

Poon (1985) posited that memory is a "reconstructive and elaborative process involving the application and integration of the individual's existing, schemata and prior experience (p. 444)". People modify recall according to the social and environmental conditions. Abson et al. (1989) further propose that these rapidly changing contexts make everyday memory tasks more complicated than clinical-based tasks.

West (1986) outlines problems with everyday memory research. Basically she described how each investigator uses his or her own definition of an everyday memory task. For one, the stimuli are related to everyday experience, but encoding and retrieval are like those used in laboratory research. Other researchers decide that it is not important use tasks that reflect everyday life, but encoding conditions should be the same as those processed in daily life. Another definition of everyday memory uses practical
content, and encoding and retrieval are similar as everyday life, but motivation is not based on the person's experience. In all of these approaches to everyday memory, West (1986) noted that familiarity of stimulus materials is a common factor.

The self-report measure is an indicator of the individual's view of his or her memory functioning. This measure should be taken seriously. It can be a tragedy if a memory complaint is brushed aside as "senility" when the cause can be treated by something as simple as vitamin therapy or antidepressants, or reducing the number and/or dosage of prescribed medication. Memory complaints also give information about how stereotypes influence behavior (Gilewski & Zelinski, 1986). Many people take a fatalistic view that nothing can be done for the aged. People generally believe that aging is a downward spiralling process to death, characterized by pain, dysfunction and loss (Zarit & Zarit, 1983). In reality, research does not support this point of view. Rather, a more optimistic view with realistic caveats is supported. While there are notable differences in memory performances between younger and older persons, the vast majority of people over 65 years of age are able to live independently and to manage their daily lives in a competent way (Zarit & Zarit, 1983). This more
positive view is an appropriate outlook and can aid in
generating much needed relevant research and
establishing norms of aging. Birren and Abrahams
(1984) advocate that a major task for the geroclinician
is the development of age-appropriate normative data
against which evaluations can be made.

Presently, it appears as though a healthy attitude
toward aging is overshadowed by the stereotypes of the
aging process, and this is a common dilemma for the
clinical/research gerontologist. Although the 1980
census figures revealed that only 5% of the population
of the United States required long-term care (85% of
the remaining 95% are healthy, independently living
adults; the other 10% suffer from significant cognitive
decline), most people continue to believe that older
adults are senile and helpless people (Reisberg &
Ferris, 1983). Some individuals in society may fit the
aging stereotype because they were reinforced by
society to conform to the image (Birren & Schaie,
people come to accept the negative things everyone says
about them and then believe them themselves. This
acceptance may cause discrepancies between individual's
self-report and objective memory performance.

Some researchers/clinicians may decide to use a
measurement such as the Cognitive Behavior Rating Scale
(Williams, 1987) in which a significant other rates the individual's everyday memory functioning (e.g., remembering friends' names, recalling phone numbers, and remembering to turn off household appliances). But the significant other's ability to rate the individual's cognitive skills necessary for successful functioning in daily life may be influenced by other variables, such as the rater's mood. Recently, a promising measure of memory function has been developed by Winterling, Crook, Salama, and Golbert (cited in Crook & Larrabee, 1990). This self-report measure contains factors assessing everyday memory tasks, remote memory, reading recall, numeric recall, word recall, spatial memory, and face recognition.

Future research on memory assessment of the elderly needs to standardize more effectively, objective measures of memory with appropriate age group samples and define and develop reliable and valid everyday memory tasks. These objective measures should be compared then, to better psychometrically designed self-report measures. Once accomplished, all three types of memory measures may be used to compliment each other to fully assess the memory functioning of the elderly.
Appendix A

Departmental Consent Form
Demographic Questionnaire
Gray's (1987) Health Questionnaire
Yesavage et al. (1983) Geriatric Depression Scale
COLLEGE OF WILLIAM AND MARY
DEPARTMENT OF PSYCHOLOGY CONSENT FORM
Self-reported Memory as a Function of
Clinical versus Everyday Memory Tasks
INVESTIGATOR: Carmella Prescott

This is to certify that I, ____________________, hereby
(print name)
agree to participate as a volunteer in a scientific study as part of the educational research program of the College of William and Mary under the supervision of Deborah Ventis, Ph.D. The investigation and my part in it have been defined and fully explained to me and I understand the explanation. The procedure of this study and the amount of time it will require have also been explained to me in detail.

I have been given the opportunity to ask whatever questions I have and all such questions have been answered to my satisfaction.

I understand that I am free to deny any answers to specific questions in this study.

I understand that any data or answers to questions will remain confidential with regard to my identity.

I understand if I have any complaints about this study, I may contact Herb Friedman, Ph.D., Department of Psychology, College of William and Mary, Williamsburg, Virginia 23185. (804) 221-3871.

I FURTHER UNDERSTAND THAT I AM FREE TO WITHDRAW AND TERMINATE MY PARTICIPATION AT ANY TIME.

Participant's Signature ___________________________ Date __________

Phone Number
DEMOGRAPHIC QUESTIONNAIRE

Please state your: Sex__________

age__________

Please check the highest level of education you have completed.

___ elementary school

___ some high school

___ high school diploma/GED

___ some college classes

___ A.S. degree

___ B.A./B.S. degree

___ some graduate classes

___ M.A./M.S. degree

___ Ph.D. degree

___ M.D. degree

Please list your occupation or former occupation, if retired.

___________________________________________

___________________________________________
HEALTH QUESTIONNAIRE

Are you now troubled by any lasting or continuing health problems, or handicaps?

_____yes  _____no

If you answered yes to the above question please check any of the following problems you have.

_____ Asthma
_____ Tuberculosis
_____ Chronic bronchitis
_____ Emphysema
_____ Any other chronic lung problem
_____ Allergies affecting breathing
_____ Any other allergy
_____ Rheumatic fever
_____ Hardening of the arteries
_____ High blood pressure (hypertension)
_____ Heart attacks (coronary)
_____ Heart trouble
_____ Stroke
_____ Trouble with varicose veins
_____ Hemorrhoids or piles
_____ Tumor, cyst, or growth
_____ Cancer
_____ Chronic gallbladder or liver trouble
_____ Stomach ulcer
Kidney stones or chronic kidney trouble
Arthritis or rheumatism
Diabetes
Thyroid trouble or goiter
Epilepsy or seizures
Multiple sclerosis
Alcohol or drug problems
Chronic nervous trouble
Hernia or rupture
Deafness or serious trouble hearing
Serious trouble seeing, even when wearing glasses
Missing legs or feet
Missing arms or hands
Chronic stiffness or any deformity of the foot, leg, arm, or hand
Repeated trouble with back or spine
Chronic stiffness or deformity of the back or spine
other (please explain)
Have you been hospitalized in the past year?

____ no

____ yes (why?)

________________________________________
for how long?

________________________________________

Please list any medications you are currently taking.

________________________________________

________________________________________

________________________________________

________________________________________

Please rate your health for this past year.

____ excellent  ____ above average

____ average  ____ below average

____ poor

How would you rate your health compared to other people's health that are at your age?

____ much better

____ somewhat better

____ about the same

____ somewhat worse

____ much worse
MEMORY SELF-REPORT

Please circle the response (Almost Always, Often, Sometimes, Almost Never, Not Applicable) that best fits your answer to the following questions.

1. Can you remember what clothes you wore yesterday?
   Almost Always  Often  Sometimes  Almost Never

2. Do you have trouble remembering whether you took all your medications yesterday?
   Almost Always  Often  Sometimes  Almost Never
   Not Applicable

3. Would you recognize the face of someone you met only once?
   Almost Always  Often  Sometimes  Almost Never

4. In a large department store do you usually remember which entrance you used?
   Almost Always  Often  Sometimes  Almost Never

5. If somebody interrupts you, do you lose your train of thought?
   Almost Always  Often  Sometimes  Almost Never

6. If you run across an unfamiliar word in a magazine can you find it in the dictionary without looking at its spelling?
   Almost Always  Often  Sometimes  Almost Never

7. Can you recall where you parked your car or where your ride will pick you up?
   Almost Always  Often  Sometimes  Almost Never
8. Do you recall your telephone number or the license number of your car?  
Almost Always  Often  Sometimes  Almost Never

9. In the dark can you distinguish between your car key and your house key?  
Almost Always  Often  Sometimes  Almost Never  
Not Applicable

10. If the telephone directory assistance gives you a number, can you dial it without writing it down?  
Almost Always  Often  Sometimes  Almost Never

11. Can you shop for groceries without a list and not forget any items?  
Almost Always  Often  Sometimes  Almost Never

12. Do you usually remember where you put your glasses or keys?  
Almost Always  Often  Sometimes  Almost Never

13. Can you recall the brand of an item advertised in the newspaper after you get to the store?  
Almost Always  Often  Sometimes  Almost Never

14. Can you keep appointments without a reminder?  
Almost Always  Often  Sometimes  Almost Never

15. Do you forget birthdays in your family?  
Almost Always  Often  Sometimes  Almost Never

16. If someone calls you, can you give that person directions to your house?  
Almost Always  Often  Sometimes  Almost Never
17. Could you reconstruct in your memory whether or not you locked the house after you are away for more than ten minutes?
   Almost Always  Often  Sometimes  Almost Never

18. When you have answered the telephone, do you recall what you were doing before it rang?
   Almost Always  Often  Sometimes  Almost Never

19. If you watch a TV series that runs for several nights, do you remember what happened in the last episode?
   Almost Always  Often  Sometimes  Almost Never

20. When you have left the supermarket are you able to recall what change you received?
   Almost Always  Often  Sometimes  Almost Never

21. Can you describe what you did last Sunday afternoon?
   Almost Always  Often  Sometimes  Almost Never

22. Does your spouse have to remind you of things he or she had asked you to do?
   Almost Always  Often  Sometimes  Almost Never
   Not Applicable

23. Can you hum a tune after you heard it several times?
   Almost Always  Often  Sometimes  Almost Never

24. Can you recall last night's headlines of the newspaper or TV news?
Almost Always  Often   Sometimes  Almost Never
25. Can you remember the price of an item in the
supermarket from one aisle to the next?
Almost Always  Often   Sometimes  Almost Never
26. Is it difficult for you to find the right words to
use?
Almost Always  Often   Sometimes  Almost Never
27. Can you recall all your financial obligations?
Almost Always  Often   Sometimes  Almost Never
28. Can you learn the words to a brief song or poem
after you repeated them three or four times?
Almost Always  Often   Sometimes  Almost Never
29. Could you remember how to put back together a
small appliance after you have taken it apart?
Almost Always  Often   Sometimes  Almost Never
30. Do you remember one of the first questions of this
questionnaire without looking back?
Almost Always  Often   Sometimes  Almost Never
GERIATRIC DEPRESSION SCALE

Choose the best answer for how you felt over the past week.

Yes No 1. Are you basically satisfied with your life?

Yes No 2. Have you dropped many of your activities and interests?

Yes No 3. Do you feel that your life is empty?

Yes No 4. Do you often get bored?

Yes No 5. Are you hopeful about the future?

Yes No 6. Are you bothered by thoughts you cannot get out of your head?

Yes No 7. Are you in good spirits most of the time?

Yes No 8. Are you afraid that something bad is going to happen to you?

Yes No 9. Do you feel happy most of the time?

Yes No 10. Do you often feel helpless?

Yes No 11. Do you often get restless and fidgety?

Yes No 12. Do you prefer to stay at home, rather than going out and doing new things?

Yes No 13. Do you frequently worry about the future?

Yes No 14. Do you feel you have more problems with memory than most?

Yes No 15. Do you think it is wonderful to be alive
now?

Yes  No  16. Do you often feel downhearted and blue?

Yes  No  17. Do you feel pretty worthless the way you are now?

Yes  No  18. Do you worry a lot about the past?

Yes  No  19. Do you find life very exciting?

Yes  No  20. Is it hard for you to get started on new projects?

Yes  No  21. Do you feel full of energy?

Yes  No  22. Do you feel that your situation is hopeless?

Yes  No  23. Do you think that most people are better off than you are?

Yes  No  24. Do you frequently get upset over little things?

Yes  No  25. Do you frequently feel like crying?

Yes  No  26. Do you have trouble concentrating?

Yes  No  27. Do you enjoy getting up in the morning?

Yes  No  28. Do you prefer to avoid social gatherings?

Yes  No  29. Is it easy for you to make decisions?

Yes  No  30. Is your mind as clear as it used to be?
Appendix B

Verbatim Instructions

(based on the WMS-R manual instructions)
Participants were asked to do the following:

1. Object Find (Everyday memory): "Tell me where your house keys (followed by, shoes, scissors, wallet, screwdriver) are located at this time. Please show them to me." The task was scored according to the number of items located (1-5).

2. Clothing Recall (Everyday memory): The researcher recorded what the participant was wearing during the meeting. The following day, the subject was called and asked to describe what they were wearing the day before during the interview. The task was scored according to if the person was not able to recall correctly what they wore on a 3-point scale ranging from "No recall of outfit" to "Recall entire outfit."

3. Logical Memory I and II from the Wechsler Memory Scale-Revised (Clinical memory): Standardized instructions as stated in the WMS-R manual were used. "I am going to read to you a little story of just a few lines. Listen carefully and try to remember it just the way I say it, as close to the same words as you can remember. When I am through I want you to tell me everything I read to you. You should tell me all you can remember even if you are not sure. Are you ready?" The story was read. "Now what did I read to you? Tell me everything and begin at the beginning." While the person recounted the paragraph, the researcher made a
check above each word or idea the person correctly stated. After the story was completed a second paragraph was read in the same manner with the same instructions and scoring. "Later on I will ask you to tell me these stories again, so try not to forget them." Thirty minutes after the completion of the Logical Memory I... "Do you remember the little stories I read to you a few minutes ago? Now I want you to tell me the stories again. Tell me everything, begin at the beginning." The person's responses to the Logical Memory II tasks were recorded as specified for Logical Memory I. A maximum score of 50 is obtainable for each of the tasks.

4. Paired Associates I and II from WMS-R (Clinical memory): Standardized instructions from the WMS-R manual were used. The person was read a group of eight word pairs, then read the first word of each pair, and asked to supply the second word from memory. "I am going to read to you a list of words, two at a time. Listen carefully because after I am through I will ask you which words go together. For example, if the words were East-West, Gold-Walk, then when I say the word East, you would answer (pause) West, then when I say the word Gold, you would answer (pause) Walk. Do you understand? (The instructions were repeated until the person stated that he or she understood the task). Now
listen carefully to the list as I read it." The list was read at the rate of one pair every three seconds. After reading the first list (5 second pause), the first recall list was presented. If the person gives the correct response--"That is right." Then the next word was presented. If the response was incorrect--"No, the word is ____." Then the next word was presented. When completed with the first presentation, the task was completed two additional times. A total of three list presentations and recall of the same eight word pairs was obtained. The person received 1 point for a correct association and a 0 for an incorrect association. The maximum score obtainable is 24. Approximately 30 minutes after completing the Paired Associates I task, the person was presented the list of 8 words a final time. A maximum score of eight was possible.

The participant was asked to complete the Geriatric Depression Scale (GDS). While the person answered the questions, the researcher observed for any overt signs of distress caused by the nature of the questionnaire. Each person was debriefed about the questionnaire... "What do you think this questionnaire measured? How did it make you feel?" The researcher attempted to create a positive mood during the debriefing.
Table 1

Pearson Correlation of Subtests of Clinical and Everyday Tasks

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<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
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<td>2 Log Mem II</td>
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<td>5 Self-Report</td>
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<td>6 Cloth Recall</td>
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*p< .01
Table 2

Pearson Correlation Matrix of All Variables

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<td>.09</td>
<td>.13</td>
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*p< .05, **p< .01
Table 3

Summary of Stepwise Multiple Regression Analysis Predicting Self-Report of Memory

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* p < .05
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