Beliefs about Memory in a National Sample: Who is Accurate about their Abilities?

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Abstract

Studies have shown that subjective evaluations of memory are often inaccurate. We were interested in identifying factors that contribute to individual differences in accuracy regarding memory abilities. We used data from the second waves of the Midlife in the United States (MIDUS) survey, with 3,352 participants between 32 and 84 years of age. Consistent with past work we found a low correlation (r=.11) between ratings of personal memory performance relative to others in the same age group. On this basis, we formed four groups: Underestimation (28.16%), Low-accurate (25.24%), Low-accurate (18.85%), and High-accurate (32.75%).

Method

Participants

Midlife in the United States (MIDUS) survey N = 3,352 adults (53.4% women) 32 to 84 years old 
Age = 55.45, SD age = 14.41, M education = 14.17 years

Accuracy measure

- Objective memory
- Objective memory
- Subjective memory (using multiple choice questions)

OBJECTIVE MEMORY (measured several months later by telephone)

- Verbal memory (mean of immediate and delayed recall of a word list)
- Episodic memory (mean of immediate and delayed recall of a word list)

Subjective memory (measured once, using self-report)

- Objective memory
- Subjective memory (mean of their age group)

Adaptive Functioning Measures

- Personality traits
- Executive functioning
- Social activity

Analyses & Results

Background

Accuracy of subjective memory has important clinical relevance in terms of the credibility professionals can give to self-reports. Memory appraisals also can affect performance and effective strategy use in challenging tasks (Lachman, 2006).

Cognitive ageing and metamemory researchers have focused on two main indicators of this concept: the correlation and the difference between objective and subjective memory scores (e.g., Connor, Dunlosky, & Hertzog, 1997). Using general (e.g., memory complaints, temporal comparison, social comparison) and specific (e.g., task predictions) subjective measures of memory, studies generally reveal a weak relationship between subjective and objective performance (e.g., Paaman & Storandt, 1995). For instance, memory self-efficacy appears to be slightly correlated (e.g., Barry, West, & Donahue, 1991; Van Honse, Broma, & Pauke, 1991; Pauke, Van Honse, & Kim, 1991; Storandt, 1987). However, several authors have interpreted the correlation of subjective memory self-efficacy (e.g., Hertzog, Park, Morrell, & Martin, 2004) and objective memory performance (Heijm, 1994; Neupert & McDougal, 2000; Reblin & Bäckström, 1998).

Several authors have attributed the small correlations between subjective and objective measures to individual differences (e.g., age, Cavanaugh & Por, 1999). Other studies (e.g., Hertzog, Park, Morrell, & Martin, 2004) found that the relationship between subjective and objective measures varied across different studies.

Moreover, most of the authors focused on task-specific memory self-evaluations in relation to test performance rather than on the general performance of memory capacities. Present Study

We aimed to identify the factors that are associated with individual differences in accuracy, in a national representative sample, using a general memory self-assessment based on social comparison. Using the performance mean of the corresponding age group, we obtained for each participant an age-specific assessment of item versus above average memory performance. This information, along with the person’s self-evaluation, formed our indicator of accuracy. We examined whether accuracy was associated with better functioning in multiple domains.

Research Questions

- Question 1. How do the socio-demographic profiles vary for those who are accurate and inaccurate in their memory self-assessments?
- Question 2. Does belonging to different accuracy groups make a difference in terms of adaptive functioning?

Conclusion

- Low-accurate and high-accurate appear to be two different profiles in terms of adaptive, cognitive and socio-cognitive functioning.
- Of irrespective of objective memory level, positive self-assessments are associated with better functioning. Overestimation appears to be effective in terms of adaptive functioning in multiple domains.
- Low-accurate appears to be the most psychologically vulnerable group, followed by those who perform well but do not acknowledge it.