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Commentary: the role of age in consumer's retrieval and evaluation of consumption experiences

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Abstract

Si, K., & Dai, X. *Marketing Letters* (2022), have introduced an intriguing and potentially useful construct to the marketing literature: *memory-search frame*. Our commentary centers on Si and Dai's study 3. This study focuses on the possible moderating effect of age on the typical length of consumers' memory-search frame. Its results imply that older consumers have longer memory-search frames compared to younger consumers. However, these correlation-based results are not strong evidence. We briefly review past research that is inconsistent with these results and pose additional questions to the authors that they might pursue in future research.

Keywords Memory search frame · Older consumers · Aging

Si and Dai (2022) have introduced an interesting and potentially useful construct to the marketing literature: *memory-search frames*. When consumers recall past consumption experiences, they search their memory for relevant events within a certain time frame. The authors refer to this time frame as the memory-search frame. In studies 1–3, Si and Dai (2022) show that a longer (vs. shorter) memory-search frame leads consumers to retrieve experiences that are objectively more distant in the past but likewise makes them perceive the experiences as subjectively more recent. The present commentary centers on Si and Dai's (2022) study 3 which focuses on the possible moderating effect of aging on the length of consumers' memory-search frame.

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A key strength of Si and Dai's (2022) research is its inclusion of age as a variable of interest since age strongly influences memory processes and in turn affects consumer decision-making. From our perspective, any efforts to document age-related differences in how consumers think and behave move the field of marketing forward. They do so by identifying important theoretical and practical questions, questions about a large and wealthy consumer segment that have heretofore been understudied and remain unanswered.

The specific results of study 3 imply that older consumers have longer memory-search frames than do younger consumers. Furthermore, based on these results, Si and Dai (2022) suggest that their research has implications for marketing to younger versus older consumers. However, in our view, study 3's correlational results do not provide sufficiently strong evidence that memory search frame length increases with age. Thus, we think it is unwise to draw definitive conclusions regarding any effect of age on memory-search-frame length absent much more theoretical and empirical work.

To be sure, it seems reasonable to assume that people tend to adopt longer memory-search frames as they age. Older adults, having lived longer, would have more events stored in long-term memory from which to sample. Yet, importantly, this expectation is not consistent with past research on the effects of aging and memory search, which have found that information processing and long-term memory both are negatively impacted by age (Johnson, 1990; Light & Singh, 1987). Several hypotheses have been offered to explain the age-related decline in information processing, including declines in cognitive resources and abilities and in motivational processes (Hess & Kotter-Grühn, 2011; Johnson, 1990; Salthouse, 1996). For example, it has been suggested that older adults conserve their resources by their reducing the quantity and complexity of information they attend (e.g., Baltes & Baltes, 1990; Johnson, 1990). Past research also reveals that long-term memory gradually declines with age, with older adults performing worse than younger adults in free recall, cued recall, and recognition tasks (Light & Singh, 1987). When taken together, these research streams concerning older adults and memory deficits and constraints cast some doubt as the authors' conclusion that on average older adults have longer memory search frames.

Moreover, past research demonstrates that age influences the retrieval of episodic memories (e.g., memories of restaurant visits and vacation trips) (e.g., Petros et al., 1983). In particular, the integrity of episodic memory retrieval appears to be especially vulnerable to aging (Mohanty et al., 2016; Light, 1991). By way of illustration, Light (1991) found that older adults demonstrate age-related decrements in free recall, cued recall, and recognition. Light (1991) notes that similar results are found in amnesiacs and that older adults are impaired on tasks that require conscious recollection. Given Si and Dai's (2022) studies rely on free recall tasks, it is possible, and even highly likely, that the memory search frames of older adults are impacted by their memory degradation. For example, is it the case that older adults' memory-search frames tend to be longer because older adults tend to recall fewer events per a specific time period and so lengthen their memory search frame in order to recall "enough" events?

Another unresolved question is whether there are significant differences due to age in the nature of events recalled. Both cross-sectional and longitudinal studies have found a so-called positivity effect whereby older (vs. young) adults

tend to focus more on positive (vs. negative) information which they are more likely to attend to and remember (e.g., Charles et al., 2001). Indeed, older adults appear to experience positive emotions as much as or even more so compared to young adults (Mroczek & Kolarz, 1998; see also, Lawton et al., 1992; Ryff, 1989). Accordingly, one wonders whether older (vs. young) adults populate their memory search frames with events that are more emotionally positive in nature. Given the extensive evidence for positivity as an underlying mechanism driving the memory of older consumers, future research will need to make a strong case against the potential presence of such an effect.

Relatedly, one wonders whether the degradation of episodic memory among older adults is specifically due to a decline in the explicit recall of negative emotional events. In past research on emotion regulation, older adults have reported experiencing less negative emotion (e.g., anxiety) in comparison to young adults (Gross et al., 1997; Kennedy et al., 2004). For instance, Gross et al. (1997) surveyed adults about their emotional experiences and emotional control. Their findings showed that compared with younger participants, older participants reported fewer negative emotional experiences and greater emotional control. In addition, older (vs. young) adults recalled fewer negative images versus positive or neutral images (Charles et al., 2003; Mikels et al., 2005; Löckenhoff & Carstensen, 2007). For example, Charles and colleagues (Charles et al, 2003) ran a study in which younger, middle-aged, and older adults were shown images on a computer screen. After a brief period of time, participants were asked to recall as many as they could and then to identify previously shown images from a set of old and new ones. The relative number of negative images compared with positive and neutral images recalled decreased with each successively older age group. Along similar lines, work by Mikels et al. (2005) shows that when tasked with working memory image trials featuring emotional material, older adults exhibited superior performance for positive (versus negative) emotional images.

Finally, much of Si and Dai's (2022) speculation on age-related memory effects rests on the assumption that older adults naturally search a longer span but the authors have not measured this systematically in study 3. What is the "tacit" bound or length of search and what is memory frame that is "tacitly" assumed as natural? Future research thus needs to advance the investigation of memory search frames by moving beyond correlational studies and utilizing samples outside of Amazon's Mechanical Turk. More importantly, more work is needed to integrate the construct of memory search frame into the larger literatures on memory and aging, as well as the literature on aging and consumer behavior.

In conclusion, we hope readers of these findings and our commentary will pursue these investigations further and consider our constructive comments in advancing research in memory and aging.

Declarations

Conflict of interest The authors declare no competing interests.

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