Overview

The negative effects of photographs on memory can be quite powerful, sometimes leading individuals to think that they might have experienced events that they did not experience or to think that historical events happened in ways that are contradicted by historical facts. In these instances, the presence of photographs (doctored or undoctored) yields memory errors. However, in other contexts, visual cues such as those depicted in complex visual scenes actually enhance memory. With the goal to help resolve the basis of the conflicting findings, the current study explored the possibility that photographs might have enhancing effects on memory when individuals whose memory is tested are actually the photographers. Within the context of a museum visit, the possible role of social interactions was also examined.

Method

Undergraduates (N = 64) attending Skidmore College were invited to participate in a museum study. In the first phase of the study, in groups of four, these undergraduates explored Oliver Herring: Me Us Them at the Tang Museum. The group composition was varied, with some groups comprised of friends and others comprised of acquaintances. Within each group, however, gender was held constant (with an equal number of males and females participating). In this first phase, members of each group were invited to explore the exhibit, with each person selecting his or her favorite six pieces included in the exhibit. Each member of the group shared his or her favorites by taking a photograph of each piece or by reporting their favorites to an experimenter. Although individuals visited the exhibit in small groups, each person involved in taking photographs had a camera to use, allowing individuals to explore the exhibit without constraints (e.g. waiting for a turn with a camera).

About one week later, as part of the second phase, individuals’ memory was tested in another campus location. To test memory for the museum pieces, the experimenter showed each participant a set of pictures that included the six favorites that he or she chose and six other Herring pieces that were on display as part of the exhibit but not selected as a favorite. Thus, the memory tests were individually constructed for each participant. The memory test also included pictures of twelve new pieces not included in the exhibit, half of which were other Herring pieces and half of which were pieces created by different contemporary artists whose work resembled Herring’s work. Participants were asked to decide whether each of the twenty-four test pictures was included in the exhibit they visited the previous week.
Results

Participants’ correct responses to the pieces in the exhibit (i.e., reports of “yes” they had seen the pieces) and their incorrect responses to new pieces (i.e., reports of “yes” to pieces they had not seen as part of the exhibit) were analyzed separately. As might be expected, memory was better for the pieces chosen as favorites than for those pieces in the exhibit not selected as favorites. However, the effect of taking photographs depended on gender. Memory for pictures present in the exhibit was better when photographs were taken, but this effect was only evident in the responses of the male participants. When examining incorrect responses, there were more errors on Herring’s pictures that were not part of the museum exhibit than there were on pieces produced by other artists. This pattern on new pieces was comparable in the responses of the male and female participants.

Discussion & Implications

These findings are intriguing in their demonstration that active engagement during museum visits promotes better memory, and that the act of taking photographs (as one way of inducing engagement) may have particularly beneficial effects for some individuals. Although only male participants showed a memory advantage after taking photographs, further work is needed to clarify the basis of this gender effect. Females may be more accustomed to taking photographs during social interactions (e.g., trips to the museum, vacations, special celebrations), or they may take photographs more often than males, suggesting that the differences observed may have less to do with gender per se and more to do with the novelty of the engaged activity. The greater error rates for pictures of new Herring pieces are fascinating in their possible implications for museum education and the teaching of art history.

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