

Relational Memory Binding Related to Spontaneous Suppression and Depression

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Introduction: The study investigated how age is related to emotion-based memory, and how depression affects memory for emotional scenes and emotional expressions. The study assessed the emotionality of pictures designed to evoke particular emotions, and the valence (positivity or negativity) of the picture stimulus. This subject is of interest because of age-associated declines in working memory, and the potential for using emotion to enhance memory capacity. The hypothesis is that depression level of the participant, emotional content, and number of repetitions of the images influences memory of the pairs more in older adults, than younger adults.

Methods: The experimental data come from a convenience sample of 66 recruited participants, half of whom were older adults ages 65+ living in Los Angeles, and half were undergraduate psychology students at USC. Participants were assessed using the Geriatric Depression Scale and the Consortium to Establish a Registry for Alzheimer's Disease (*CERAD*) neuropsychological battery. Research subjects were shown photographs of faces paired with scenes that depict emotional events, and only the photo of a face, and asked to remember which scene was previously matched to that face. The analysis includes ANOVAs, correlations, and regression investigating the interrelationship between the emotional valence of the pictures and the number of correct remembered pairs.

Results: The results indicate that older people who are less depressed ($GDS < 6$) are more likely to remember positive scenes associated with pictures of people with neutral face expressions, while those who have higher depression ($GDS > 6$) remember a greater number of negative scenes.

Sources Supporting/Funding the Research:

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