PAYING ATTENTION TO BINDING: IS THE ASSOCIATIVE DEFICIT OF OLDER ADULTS MEDIATED BY REDUCED ATTENTIONAL RESOURCES?

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ABSTRACT

One notion put forth to explain age-related, episodic memory problems is the associative-deficit hypothesis, stating that they are due to older adults’ decreased binding ability (i.e., their ability to encode separate components into a cohesive unit). The present experiments investigated whether such a binding deficit is mediated by a reduction of attentional resources by using a dual task procedure where participants were asked to study lists of words while completing an auditory reaction time task. Results show that when younger adults’ resources were manipulated using divided attention, they did not simulate the deficit of older adults. Furthermore, older adults who underwent the same divided attention procedure did not show a larger associative deficit than that seen under full attention. A follow-up experiment (in which participants separately learned the components or their associations) showed similar results in terms of memory accuracy, replicating the associative deficit seen in older adults. This second experiment also investigated the separate attentional costs for learning the components or their associations. These results reveal that older adults had a larger attentional cost during encoding than younger adults overall; however, the costs to the older adults were not larger for tasks involving the binding of components than for tasks involving the learning of components alone when compared to younger adults. These data do not support the suggestion that the associative deficit is mediated by a reduction of attentional resources.