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.