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Time estimation in Alzheimer’s Disease: Differences with normal aging

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Abstract

Time perception is modified in normal aging and Alzheimer’s Disease (AD), yet the nature and the extent of temporal information processing decrease is under debate. This study investigated prospective time estimation in normal aging and AD compared to healthy young adults in a production task. Participants (young adults, older adults, and patients with AD) were asked to produce time intervals with 3 target durations (3, 5, and 8 seconds). Compared with young adults, older adults and AD patients demonstrated modifications in time estimation. Remarkably, older adults did not differ from young adults for the accuracy index for shorter durations, unlike AD patients. Moreover, the variability in the temporal performances was significantly greater in AD patients than healthy participants. These findings are discussed to portray the differences in time estimation between normal aging and AD in relation to cognitive deficits observed in AD.

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