EVERYDAY MEMORY IN AGING AND EARLY ALZHEIMERS DISEASE

https://www.neurodegenerationresearch.eu/survey/everyday-memory-in-aging-and-early-alzheimers-disease/

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EVERYDAY MEMORY IN AGING AND EARLY ALZHEIMERS DISEASE

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Research Abstract

Negotiating one’s environment requires flexible adaptation to changing circumstances. For example, suppose you were to visit an office building once and park in its underground garage. On your second visit, you come upon a sign informing you that the garage is being renovated

and directing you to a surface lot. If you successfully integrate the previous experience with the new information, you will be able to use that information to know which way not to turn, and to better able to find your way. However, if you fail to adaptively process the changed feature, you may find yourself following your previous path and stuck in a construction zone— particularly if you are under cognitive load. People's ability to comprehend changes has been examined is very basic laboratory tasks, but little is known about the mechanisms that underlie the comprehension of changes in naturalistic activities. Central to this proposal, even less is known about how healthy aging and early Alzheimer's disease (AD) affect people's comprehension of the rapidly changing environment. Here, three aims will address the overarching issue of how younger adults, healthy older adults, and older adults with early AD comprehend changes in dynamic everyday activities. The first aim tests a new proposal for how the brain changes in healthy aging and AD affect people's ability to comprehend and remember changes in events. The second aim directly investigates the neural mechanism of change comprehension using an advanced pattern analysis based functional MRI technique. The final aim tests an intervention designed to remediate negative effects on change comprehension and memory by cuing people to the relationship of a new event to a previously encountered event. These experiments will provide critical insights into the mechanisms that can be targeted by clinical interventions aimed at improving everyday cognition.

Further information available at:

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