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Visuospatial function predicts one-week motor skill retention in cognitively intact older adults

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Highlights

- Visuospatial function predicts one-week motor skill retention in older adults.
- Extent of delayed memory impairment does not affect retention of motor skill.
- Visuospatial tests could determine responsiveness to procedural-based therapies.

Abstract

Motor learning declines with aging, such that older adults retain less motor skill after practice compared to younger adults. However, it remains unclear if these motor learning declines are related to normal cognitive changes associated with aging. The purpose of this study was to examine which cognitive domains would best predict the amount of retention on a motor task one week after training in cognitively intact older adults. Twenty-one adults ages 65 to 84 years old were assessed with Repeatable Battery for the Assessment of Neuropsychological Status, which assesses five cognitive domains (immediate and delayed memory, visuospatial/constructional, language, and attention). Participants also completed one training session of a functional upper extremity task, and were re-tested one week later. Stepwise regression indicated that the visuospatial domain was the only significant predictor of how much

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