

BRIEF SUMMARY

Tranter, L. J., & Koutstaal, W. (2008). Age and flexible thinking: An experimental demonstration of the beneficial effects of increased cognitively stimulating activity on fluid intelligence in healthy older adults. *Aging, Neuropsychology, and Cognition*, 15, 184-207.

The disuse hypothesis of cognitive aging attributes decrements in fluid intelligence in older adults to reduced cognitively stimulating activity. This study experimentally tested the hypothesis that a period of *increased* mentally stimulating activities thus would *enhance* older adults' fluid intelligence performance. Participants ($N = 44$, mean age 67.82) were administered pre- and post-measures, including the fluid intelligence measure, Cattell's Culture Fair (CCF) test. Experimental participants engaged in diverse, novel, mentally stimulating activities for 10-12 weeks and were compared to a control condition. Results supported the hypothesis: the experimental group showed greater pre- to post-CCF gain than did controls (effect size $d = .56$), with a similar gain on a spatial-perceptual task (WAIS-R Blocks). Even brief periods of increased cognitive stimulation can improve older adults' problem solving and flexible thinking.

KEYWORDS: disuse theory of cognitive aging, environmental enrichment, neuronal plasticity, fluid intelligence, successful aging, thinking
