DOES PHONEMIC VERBAL FLUENCY RELY PRIMARILY ON A SWITCHING STRATEGY AND SEMANTIC VERBAL FLUENCY ON A CLUSTERING STRATEGY? A LONGITUDINAL STUDY OF HEALTHY OLDER ADULTS

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Background: The verbal fluency (VT) task assesses phonemic and semantic fluency. Phonemic fluency is often considered to rely on a "switching" cognitive strategy and semantic fluency on a "clustering" cognitive strategy.

Aim: To examine whether phonemic fluency relies exclusively on a "switching" strategy and semantic fluency on a "clustering" strategy, a quantitative (total number of correct words) and a qualitative scoring method (i.e. clustering and switching) were applied to determine the main cognitive strategies underlying individual performance longitudinally in a sample of healthy, older adults.

Methods: Twenty-seven highly educated (mean education =17.15 yrs, SD=3.21) healthy older adults (mean age=76.84, SD=4.53), were administered the VF, along with other neuropsychological tests once a year for six consecutive years.

Results: Medium to high correlations were found between phonemic fluency and the number of switches (mean r=0.72, p=0.00) as well as between the number of clusters (mean r=0.73, p=0.00) for all six years. Medium to high correlations were also found between semantic fluency and the number of switches (mean r=0.57, p=0.000) and the number of clusters (mean r=0.70, p=0.000).

Conclusion: Neither phonemic nor semantic fluency appeared to rely on one main strategy. Phonemic fluency did not rely exclusively on a switching strategy and semantic fluency did not rely exclusively on a clustering strategy, contrary to previous reports. Rather, these findings suggest that both strategies are involved to a comparable extent in phonemic as well as semantic fluency.