Working memory capacity assessed with a Portuguese adaptation of the operation span task

Abstract:
Baddeley and Hitch's (1974) working memory (WM) model has been around for thirty years and it has become one of the most successful models in cognitive science. The model accounts for a vast amount of empirical data, and it is able to relate short-term memory constraints with complex cognitive tasks such as reasoning, reading comprehension, and writing. Two common measures of WM capacity are the reading span and the operation span tasks. Carpenter's (1980) reading span task was recently adapted by Gaspar and Pinto (2001) to the Portuguese language. Here, we report a Portuguese adaptation of Turner and Engle's (1999) operation span task, in which participants verify the exactness of simple arithmetic operations while trying to remember the words with which the operations are paired, e.g., "(5 x 1) + 1 = 6 MESA". Forty-two college students were tested. The operations were generated following Lefrançois and Engle's rules (1990); high-frequency words were selected using the Portela database (Gomes & Castro, 2003) and the CETEMPúblico corpus for frequency information. Our results on WM capacity are similar to those reported in the literature, thus supporting the reliability of this version of the operation span task in Portuguese.

Keywords:
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