Working Memory and Interference Control in Verbal Analogy

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Abstract: We investigated the extent to which individual differences in working memory (WM) and interference control (IC) differentially predicted performance on a verbal analogy task with participants selecting the D-term for each analogy stem (A:B::C:__). We varied the semantic distance of each analogy by having an A:B pair that was either far (LEATHER : SADDLE) or near (PLATINUM : NECKLACE) the correct C:D pair (GOLD : EARRING). We also manipulated distracter salience with greater semantic closeness to the C-term for the high salient (SIVLER) than the low salient (ALUMINUM) distracters. WM predicted higher accuracies across each of the four analogy conditions, and better IC predicted faster RTs. Controlling for IC, WM predicted faster RTs for the analogies with high but not low salient distracters. Results have important implications for the separate and joint influences of WM and IC on the underlying analogical component processes of relational integration, mapping, and response selection.