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Stop Interfering! Understanding how Stereotype Threat reduces Working Memory Capacity by using the Dual Processes Model.

Consensus is building that stereotype threat interferes with working memory, but how so? We examined error monitoring and goal maintenance as possible mediating mechanisms triggered by stereotype threat. Grounded in the dual process model (Kane & Engle, 2005) 187 MSU men were first given the OSPAN to assess working memory capacity (WMC), then engaged in a mostly incongruent or mostly congruent Stroop task which was presented as a measure of verbal processing skills (stereotype threat condition) or not (neutral condition). Stroop errors and reaction times were assessed. The regression model was significant for Stroop errors $R^2 = .65$, $F(7, 174) = 18.41$, $p < .001$, indicating a significant three way interaction between stereotype threat, list(congruent), and WMC ($\beta = -.12$). Only main effects of WMC and list were observed for reaction time. Results suggest that for people lower in WMC, stereotype threat primarily interferes with maintaining task goals.