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## **STATIC AND DYNAMIC COGNITIVE CONTROL ABILITIES AND THEIR RELATIONSHIP TO HYPNOTIC SUGGESTIBILITY**

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**Background:** Cognitive control has been theoretically linked to hypnotic suggestibility. Some theories propose poorer baseline cognitive control in the highly suggestible, while other theories propose better baseline cognitive control, rendering theoretically important a consideration of the role of cognitive control in hypnotic suggestibility. The literature on this issue has produced mixed results but these studies have employed versions of tasks that have been confounded by factors such as a failure to distinguish between types of inhibition and facilitation and not taking low-level confounds into account. This means that previous studies have not measured cognitive control at all or have done so only minimally. This point is no better illustrated than when considering just the studies that have employed the Stroop task. The Stroop task elicits cognitive conflict by presenting two sources of information, one of which, a word, is relevant, and the other, the font colour of the word, is relevant. Consistent with what has been noted above, the results using this task on high vs. low suggestible individuals are mixed with some studies showing no differences, some showing poorer performance, and others reporting better performance. These findings are further complicated by experimental designs that are confounded by a lack of appropriate control conditions and issues of response contingency and feature integration.

**Aims:** This project will address the theoretical debate about baseline (outside of hypnosis) cognitive control abilities of hypnotically suggestible individuals.

**Method:** The project aims to test highs, mediums and lows on confound-free static (time-invariant) and dynamic (time-varying) control Stroop paradigms, using eye-tracking and pupillometry to index spontaneous strategy adoption (e.g., positional strategies and cognitive effort). Factors known to influence both Stroop task performance (e.g., fluid intelligence) and the relationship between hypnotic suggestibility and cognitive control (e.g., tendency to dissociate) will also be measured.

**Preliminary results:** The project started in July of 2023. Following recruitment and training of an RA, a number of hypnosis screening sessions have been run and testing is ongoing for Experiment 1, which tests for static control differences, and testing has begun on Experiment 2, which tests for dynamic control differences. Experiment 3, which tests for control expectancy effects, will be run in Oct 2024.

**Keywords:** Hypnosis, Suggestibility, Cognitive control

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