

Using caffeine as a tool to study information processing

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Researchers are using caffeine to study how the brain processes information, and a new study shows the effectiveness of this approach. A placebo-controlled study in adults, which uses a simple Go/NoGo task,

is published in *Journal of Caffeine and Adenosine Research*.

The article entitled "Caffeine as a Tool to Explore Active Cognitive Processing Stages in Two-Choice Tasks" was coauthored by Robert Barry, Jack Fogarty, and Frances De Blasio, University of Wollongong, Australia. In the cross-over study, one group of adults was given 250 mg of [caffeine](#) before completing a Go/NoGo task, in which they heard one of two tones. If they heard the "Go" target tone, they were to push a button. If they heard the "NoGo" tone they had to process that information and not push the button. The researchers used electroencephalography to measure event-related potential components and explore sequential processing in the individuals with and without caffeine. The study produced a number of novel outcomes, showing caffeine to be a useful tool

"A particularly significant finding of this study, performed in adults, is the qualitatively different effect of caffeine during the processing of a Go/NoGo [task](#) as compared to the results of a previous study by the same research group in children, providing new clues about the different cognitive strategies used by adults and children and their dependence on the [adenosine](#) system," says *Journal of Caffeine and Adenosine Research* Editor-in-Chief Sergi Ferré, MD, Ph.D., Chief of the Integrative Neurobiology Section at the National Institute on Drug Abuse, National Institutes of Health, Baltimore, MD.

More information: Robert J. Barry et al, Caffeine as a Tool to Explore Active Cognitive Processing Stages in Two-Choice Tasks, *Journal of Caffeine and Adenosine Research* (2019). [DOI: 10.1089/caff.2019.0021](#)

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