

Caffeine improves recognition of positive words

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Caffeine perks up most coffee-lovers, but a new study shows a small dose of caffeine also increases their speed and accuracy for recognizing words with positive connotation. The research published November 7 in the open access journal *PLOS ONE* by Lars Kuchinke and colleagues from Ruhr University, Germany, shows that caffeine enhances the neural processing of positive words, but not those with neutral or negative associations.

Previous research showed that caffeine increases activity in the central nervous system, and normal doses of caffeine improve performance on simple cognitive tasks and behavioral responses. It is also known that certain memories are enhanced when strong positive or <u>negative</u> <u>emotions</u> are associated with objects, but the link between <u>caffeine</u> <u>consumption</u> and these emotional biases was unknown.

This study demonstrates, for the first time, that consuming 200 mg of caffeine, equivalent to 2-3 cups of coffee, 30 minutes before a task can improve the implicit recognition of positive words, but has no effect on the processing of emotionally neutral or negative words. The authors suggest that this effect is driven by caffeine's strong dopaminergic effects in the language-dominant regions of the brain.

More information: Kuchinke L, Lux V (2012) Caffeine Improves Left Hemisphere Processing of Positive Words. *PLoS ONE* 7(11): e48487. <u>doi:10.1371/journal.pone.0048487</u>



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