

Just seeing reminders of coffee can stimulate the brain, study reveals

March 28 2019, by Don Campbell



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Just looking at something that reminds us of coffee can cause our minds to become more alert and attentive, according to a new U of T study.

"Coffee is one of the most popular beverages and a lot is known about its [physical effects](#)," says Sam Maglio, an associate professor in the

Departments of Management at U of T Scarborough and the Rotman School of Management.

"Much less is known about its psychological meaning—in other words, how even seeing reminders of it can influence how we think."

The study, co-authored by Maglio and published in the journal *Consciousness and Cognition*, looks at an effect called priming, through which exposure to even subtle cues can influence our thoughts and behaviour.

"People often encounter coffee-related cues, or think about coffee, without actually ingesting it," says Maglio, an expert on consumer behaviour.

"We wanted to see if there was an association between coffee and arousal such that if we simply exposed people to coffee-related cues, their physiological arousal would increase, as it would if they had actually drank coffee."

Arousal in psychology refers to how specific areas of the brain get activated into a state of being alert, awake and attentive. It can be triggered by a number of things, including our emotions, neurotransmitters in the brain, or the caffeinated beverages we consume.

In this case the researchers, including Maglio and Eugene Chan, a former Ph.D. student at Rotman, wanted to explore how simply being exposed to things that remind us of coffee may have an effect on arousal.

Across four separate studies and using a mix of participants from Western and Eastern cultures, they compared coffee- and tea-related cues. They found that participants exposed to coffee-related cues

perceived time as shorter and thought in more concrete, precise terms.

"People who experience physiological arousal—again, in this case as the result of priming and not drinking coffee itself—see the world in more specific, detailed terms," says Maglio, whose past research has looked at how uncertainty can affect our perception of time.

"This has a number of implications for how people process information and make judgements and decisions."

However, the effect was not as strong among participants who grew up in Eastern cultures. Maglio speculates that the association between coffee and arousal is not as strong in less [coffee](#)-dominated cultures.



Sam Maglio, an associate professor in the Department of Management at U of T Scarborough, is an expert on consumer behaviour. Credit: Yana Kaz

"In North America we have this image of a prototypical executive rushing off to an important meeting with a triple espresso in their hand. There's this connection between drinking caffeine and arousal that may not exist in other cultures."

Past U of T research has looked at the effect of other primed associations, notes Maglio. [One study](#) specifically found that merely looking at the McDonald's logo may lessen our ability to slow down and savour pleasurable experiences in life.

He says the research may be of interest in better understanding a range of consumer-related behaviours, and for marketers in considering retail store locations.

"If you want walk-in customers who are thinking about their long-term future, a retail storefront next to David's Tea may be ideal," he says. "Just walking past it should reduce arousal and make them care less about immediate, short-term indulgences."

Maglio says next steps for the research will look at associations people have for different foods and beverages. Just thinking about [energy drinks](#) or red wine for instance could have very different effects on arousal.

More information: Eugene Y. Chan et al. Coffee cues elevate arousal and reduce level of construal, *Consciousness and Cognition* (2019). [DOI:](#)

[10.1016/j.concog.2019.02.007](https://doi.org/10.1016/j.concog.2019.02.007)

Provided by University of Toronto

Citation: Just seeing reminders of coffee can stimulate the brain, study reveals (2019, March 28)
retrieved 25 April 2024 from <https://medicalxpress.com/news/2019-03-coffee-brain-reveals.html>

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