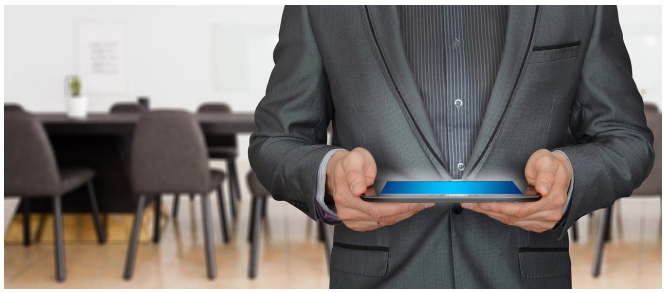
How marketing decoys influence decision-making

6 November 2017



Credit: CC0 Public Domain

The neural underpinnings of the decoy effect—a marketing strategy in which one of three presented options is unlikely to be chosen but may influence how an individual decides between the other two options—are investigated in new neuroeconomic research published in *JNeurosci* using neuroimaging and brain stimulation.

To make a decision, the brain encodes values for available choices and an individual then theoretically chooses the option with the highest value. In reality, however, these choices are made in varying contexts that may have a role in the value calculation of each option.

Chen-Ying Huang and Wen-Jui Kuo led a team of neuroscientists and economists to investigate this question by conducting two experiments with young adults in Taiwan. Participants were asked to make choices between two and three restaurant meals based on price and rating information from the website enjoygourmet.com.

The researchers observed greater value-related activity in the left ventral striatum when the chosen option was superior to the decoy, compared with the situation where the same chosen option was not. Their functional magnetic resonance imaging and transcranial magnetic simulation work also revealed that input from the frontal region of the brain has a role in correcting this bias.

More information: Why Do Irrelevant Alternatives Matter? An fMRI-TMS Study of Context-Dependent Preferences, *Journal of Neuroscience*, DOI: 10.1523/JNEUROSCI.2307-16.2017

Provided by Society for Neuroscience