

Study reveals effects of unconscious exposure to advertisements

December 9 2008

Fads have been a staple of American pop culture for decades, from spandex in the 1980s to skinny jeans today. But while going from fad to flop may seem like the result of fickle consumers, a new study suggests that this is exactly what should be expected for a highly efficient, rationally evolved animal.

The new research, led by cognitive scientist Mark Changizi of Rensselaer Polytechnic Institute, shows why direct exposure to repeated ads initially increases a consumer's preference for promoted products, and why the most effective advertisements are the ones consumers don't even realize they have seen.

It has long been known that repeated visual exposure to an object can affect an observer's preference for it, initially rapidly increasing preference, and then eventually lowering preference again. This can give way to short-lived fads. But while this may seem illogical, Changizi argues that it makes perfect cognitive sense.

"A rational animal ought to prefer something in proportion to the probable payoff of acting to obtain it," said Changizi, assistant professor of cognitive science at Rensselaer and lead author of the study, which appears in the online version of the journal *Perception*. "The frequency at which one is visually exposed to an object can provide evidence about this expected payoff, and our brains have evolved mechanisms that exploit this information, rationally modulating our preferences."

A small number of visual exposures to an object typically raises the probability of acquiring the object, which enhances preference, according to Changizi.

On the other hand, Changizi says overexposure to an object provides the brain with evidence that the object is overabundant, and is likely not valuable, thereby lowering the individual's preference for it.

"An individual's preference for an object based on a large number of visual exposures will almost always take the shape of an inverted 'U', with an initial rapid rise in preference based on the enhanced probability that an object can be obtained, followed by a plateau and a gradual decrease in preference as the evidence begins to suggest that the object is overly common and thus not valuable," Changizi said.

One of the most surprising aspects of visual exposure effects, according to Changizi, is that they are enhanced when visual exposure occurs without conscious recognition.

"This non-conscious mechanism exists because visual exposure information alone, without conscious judgment, has implications for the expected payoff of one's actions," Changizi said. "In many natural situations, observers potentially have both exposure schedule information and consciously accessible information about the object, in which case the predicted degree of preference modulations from visual exposure will be dampened, as the visual information is competing with the information from conscious recognition of the object and any subsequent judgment."

These non-conscious mechanisms for rationally modulating preference are the kind animals without much of a cognitive life can engage in, and Changizi speculates that they are much more ancient.

Advertising that takes the form of apparel branded with company's names, and products strategically placed in movies and television shows, often go unnoticed by consumers, capitalizing on our brain's mechanisms to modulate preference based on non-conscious exposure.

Changizi's research suggests that such advertising tactics work because they tap into our non-conscious mechanisms for optimal preferences, hijacking them for selling a company's products. The research could hold potential for marketers interested in optimizing their advertising for the human mind, Changizi says.

Source: Rensselaer Polytechnic Institute

Citation: Study reveals effects of unconscious exposure to advertisements (2008, December 9) retrieved 5 May 2024 from <https://phys.org/news/2008-12-reveals-effects-unconscious-exposure-advertisements.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.