

# Viewing gender-specific objects influences perception of gender identity

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Perception of faces is biased towards the opposite gender after six seconds of exposure to objects associated to one gender. Credit: Citation: Javadi AH, Wee N (2012) Cross-Category Adaptation: Objects Produce Gender Adaptation in the Perception of Faces. *PLoS ONE* 7(9): e46079. doi:10.1371/journal.pone.0046079

Spending too much time looking at high heels may influence how a viewer perceives the gender of an androgynous face, according to new research published Sep. 26 in the open access journal *PLOS ONE* by Amir Homayoun Javadi of Technische Universität, Dresden and his colleagues. The study sheds new light on how the objects surrounding us may influence our perceptions of gender.

The authors found that when people view objects highly associated with one gender, like high heels for women or electric shavers for men, for a short period of time and are then asked to identify the gender of an androgynous face, they are more likely to identify it as being of the gender opposite to that associated with the stimuli.

Previous studies have demonstrated that continuous exposure to certain [visual stimuli](#) causes short and long term [adaptations](#) with temporary aftereffects due to repeated stimulation of specific pathways in the brain. For example, after prolonged exposure to a red screen, a viewer is more likely to perceive a white screen as being green (the perceptual opposite of red). This study, though, is the first demonstrating that such adaptation can occur for a more abstract feature like gender perception.

The authors suggest two possible explanations for their results. The first possibility they suggest is that common [brain regions](#) may be involved in identifying gender-associated objects and identifying the gender of androgynous faces, so the effect is akin to what occurs in the red screen-white screen example above. Alternately, the researchers suggest that a higher cognitive function of 'adapting to gender' may modulate the process of 'assigning gender', whether to an object or an androgynous face.

"This study highlights how exposure to objects in our environment can affect our perception of gender in everyday life" says Javadi, lead author of the paper.

**More information:** Javadi AH, Wee N (2012) Cross-Category Adaptation: Objects Produce Gender Adaptation in the Perception of Faces. PLOS ONE 7(9): e46079. [doi:10.1371/journal.pone.0046079](https://doi.org/10.1371/journal.pone.0046079)

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