

Study finds facial impressions driven by our own experiences

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A study led by Princeton University Professor Alexander Todorov shows that people's own experiences drive their judgments of other people's faces. Credit: Princeton University

The pseudoscience of physiognomy - judging people's character from their faces - has been around for centuries, but a new Princeton

University study shows that people make such judgments based on their own experiences.

The results appear in the journal *Nature Human Behavior*. The study included researchers from Princeton University, Utrecht University and Hebrew University.

In previous research, senior author Alexander Todorov, a professor of psychology, and colleagues showed that we make up our minds about others after seeing their [faces](#) for a fraction of a second - and that these snap judgments, which are usually incorrect, predict economic, legal, voting and other decisions. "People form instantaneous [impressions](#) from [facial appearance](#), but what drives these impressions?" Todorov says.

Most previous research has focused on identifying configurations of facial features that lead to specific impressions, but there are other important determinants of these impressions that are grounded in one's idiosyncratic history of exposure to faces. In their new study, Todorov and his colleagues propose a new direction in the study of inferences from faces. They argue that any face can be positioned in a statistical distribution of faces extracted from the environment and that understanding inferences from faces requires consideration of their statistical position on that distribution - or how typical facial features are to the viewer.



Credit: Artem Podrez from Pexels

The study's participants were shown hundreds of faces and asked to judge their trustworthiness, attractiveness, competence and other characteristics. The results showed that exposure to different faces not only shifts what faces people perceive as typical, but also what faces they evaluate more positively (more typical faces are evaluated more positively).

"Our results show that the mere statistical position of faces imbues them with social meaning—faces are evaluated more negatively the more they deviate from a learned central tendency, or what each person considers a typical face," Todorov says. "These determinants of impressions are not

about [facial features](#) per se but about one's learning of faces. In other words, although there is no 'average' human face, you like faces that are closer to your own definition of a typical face. Our findings have important implications for understanding cross-cultural and inter-group differences in evaluation of faces."

More information: Ron Dotsch et al, Statistical learning shapes face evaluation, *Nature Human Behaviour* (2016). [DOI: 10.1038/S41562-016-0001](#)

Provided by Princeton University

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