

Snap judgments decide a face's character, psychologist finds

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We may be taught not to judge a book by its cover, but when we see a new face, our brains decide whether a person is attractive and trustworthy within a tenth of a second, according to recent Princeton research.

Princeton University psychologist Alex Todorov has found that people respond intuitively to faces so rapidly that our reasoning minds may not have time to influence the reaction -- and that our intuitions about attraction and trust are among those we form the fastest.

"The link between facial features and character may be tenuous at best, but that doesn't stop our minds from sizing other people up at a glance," said Todorov, an assistant professor of psychology. "We decide very quickly whether a person possesses many of the traits we feel are important, such as likeability and competence, even though we have not exchanged a single word with them. It appears that we are hard-wired to draw these inferences in a fast, unreflective way."

Todorov and co-author Janine Willis, a student researcher who graduated from Princeton in 2005, used timed experiments and found that snap judgments on character are often formed with insufficient time for rational thought. They published their research in the July issue of the journal *Psychological Science*.

The study formed part of Willis' senior thesis work, which was inspired by an earlier paper by Todorov investigating the outcome of a political

campaign.

"I had done studies with my students that found there was a direct correlation between how competent a campaigning politician's face was and how great his margin of victory turned out in the final election," Todorov said of his earlier work, published in the journal *Science* last year. "We might assume that our judgments are founded on deliberate and rational thought processes, but observers had made their judgments about politicians based on a one-second look at their faces. I mentioned the findings to Janine, who suggested we look into just how fast we form these (judgments about) character traits."

For the current study, the two researchers conducted several experiments on about 200 people. For one experiment, the researchers asked observers to look at 66 different faces for one of three time durations: either 100 milliseconds, 500 milliseconds or a full second. After each face flashed on the screen and vanished, the observers marked whether they found the face to be trustworthy or not, and also how confident they were in their analysis. Other experiments conducted in similar fashion tested for different specific traits, such as likeability and competence.

"What we found was that, if given more time, people's fundamental judgment about faces did not change," Todorov said. "Observers simply became more confident in their judgments as the duration lengthened."

Why the brain makes such snap judgments is not yet entirely clear, Todorov said. However, he often works with a sophisticated technological tool for probing brain activity called a functional magnetic resonance imager (fMRI), and Todorov said some of his general research suggests that the part of the brain that responds directly to fear may be involved in judgments of trustworthiness.

"The fear response involves the amygdala, a part of the brain that existed

in animals for millions of years before the development of the prefrontal cortex, where rational thoughts come from," he said. "We imagine trust to be a rather sophisticated response, but our observations indicate that trust might be a case of a high-level judgment being made by a low-level brain structure. Perhaps the signal bypasses the cortex altogether."

The research, Todorov said, explores some of the same topics addressed in "Blink," the recent best-selling book by New York journalist Malcolm Gladwell about the rapid cognition our minds experience when making decisions quickly, especially those based on first impressions made in the "blink" of an eye. Gladwell, who is often described as a type of popular sociologist, has said the impetus for his book was the rapid judgments people made about him because of his long hair.

"This paper's results concern specific mechanisms in the mind, while 'Blink' makes broader generalizations," Todorov said. "Gladwell's basic message is not essentially different from ours, though he views snap judgments to be primarily rational in nature. Our research finds that this is often the case, but not always."

Todorov cautioned that his findings do not imply, however, that quick first impressions cannot be overcome by the rational mind.

"As time passes and you get to know people, you, of course, develop a more rounded conception of them," he said. "But because we make these judgments without conscious thought, we should be aware of what is happening when we look at a person's face."

What aspects of a face inspire such judgments remain undetermined, Todorov said.

"We still don't know the physical features of a face that lead to a particular trait inference," he said. "We know generally what makes a

face attractive, such as its symmetry, the proportions of its parts and the like. But what is it about a face that makes you think its owner is an essentially competent person? That's the subject of another study, one that needs to be done."

Source: Princeton University

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