

Anxiety increases error, but not bias, in facial recognition

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Credit: AI-generated image ([disclaimer](#))

While people in a state of anxiety make more mistakes trying to recognise faces, they don't show an increased ethnic bias, according to research which debunks a commonly-held belief.

The work sheds more light into the complexities surrounding eye-witness

testimonies, indicating that a person who sees a crime is unlikely to be more biased against those from another race if they are anxious.

"We know that stress and anxiety can make an eye-witness less accurate, and that people are better at recognising faces of their own ethnic group than other ethnicities," Murdoch University researcher Dr Guy Curtis says.

"But we couldn't find anything in the literature clearly looking at how these two characteristics might interact.

The research findings do not fit with the idea that anxiety increases own-ethnicity bias, or [racial bias](#), by increasing stereotyping, Dr Curtis says.

"Some psychologists have suggested that people under stress would be more likely to rely on categorisation, but that wasn't the case," he says.

In fact, anxiety may actually decrease stereotyping, as people's brains work harder to avoid cognitive shortcuts, he says.

The research consisted of two experiments ran by Murdoch University, the University of Western Australia and the University of Western Sydney and asked 161 students to view 60 facial photographs of Caucasians and African Americans.

Half of the participants were put under stress, told they would have to give a three-minute speech to their classmates immediately after the task, or given anagrams to solve which had no solution.

All of the participants were then presented with another 60 photos and asked to say which of the faces were new and which were old.

The researchers found those under stress were significantly worse at

recalling faces, likely due to [anxiety](#) interfering with the process of memory encoding.

However, while anxious students made more mistakes, there was no evidence that the ethnicity of the person they were looking at made a difference.

The findings are consistent with Dr Curtis' previous research which found happy people were more likely than stressed people to assume a man was guilty of assault than a woman, falling back on stereotypes.

"Happy people basically took the easy way, falling back on the stereotype of men being more prone to violence, whereas anxious [people](#) worked harder," he says.

People may be able to improve their abilities to recognise other ethnicities through experience, Dr Curtis says.

More information: Guy J. Curtis et al. More Inaccurate But Not More Biased: Anxiety During Encoding Impairs Face Recognition Accuracy But Does Not Moderate the Own-Ethnicity Bias, *Applied Cognitive Psychology* (2015). [DOI: 10.1002/acp.3138](https://doi.org/10.1002/acp.3138)

Guy J. Curtis. Don't be Happy, Worry: Positive Mood, but not Anxiety, Increases Stereotyping in a Mock-Juror Decision-Making Task, *Psychiatry, Psychology and Law* (2013). [DOI: 10.1080/13218719.2012.729019](https://doi.org/10.1080/13218719.2012.729019)

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