

Paying attention to faces may be linked with psychopathology levels and 'big five' personality traits

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The authors suggest that pictures of human faces attract most people's attention, but the phenomenon is weaker in people with higher levels of social anxiety, depression and other forms of psychopathology. Credit: Clker-Free-Vector-Images, Pixabay, CC0 (https://creativecommons.org/publicdomain/zero/1.0/)

A person's personality and psychopathology levels may be associated



with how strongly they prefer to focus on human faces within images, according to a study published in the open-access journal *PLOS ONE* by Marius Rubo from the University of Bern, Switzerland, and colleagues.

People tend to be drawn to other human faces when viewing images—even visually busy images. Previous research points to <u>personality factors</u> or specific diagnoses potentially playing a role in how strongly specific individuals hold this preference for focusing on human faces. In this study, the authors assessed how several influential psychological traits might affect an individual's preference to focus on faces.

One-hundred-twenty participants (mostly students) viewed 20 <u>photographs</u> depicting people in busy environments while their attention was assessed. To do this, the authors used a cursor-based tool: The photographs were blurred and only became clear within a 20-pixel radius around the cursor, which participants could move around the photograph.

Afterward, the participants responded to a <u>questionnaire</u> assessing the "big five" <u>personality</u> traits of extraversion, agreeableness, openness, conscientiousness and neuroticism. The questionnaires also asked about multiple facets of psychopathology including <u>social anxiety</u>, depression, empathy, alexithymia (inability to describe one's emotions), and specific social values.

In terms of personality traits, extraversion, agreeableness and openness to experience were positively correlated with an increased focus on faces. Individuals who reported higher empathy levels were also more likely to focus more on faces. Meanwhile, participants who scored highly on certain other facets of psychopathology, including social anxiety, depression and alexithymia, tended to focus less on faces. In general, participants spent about 17% of their image viewing time



looking at faces within the images.

The authors note that cursor positioning is an imperfect proxy for gaze tracking, being slower than direct gazing. They also note that attention to <u>images</u> of faces is partly different from attention in real life settings. However, the results suggest that face preferences may be linked both to personality and psychopathology levels.

The authors add, "Pictures of human faces attract most people's attention, but the phenomenon is weaker in people with higher levels of social anxiety, depression and other forms of psychopathology."

More information: Attention to faces in images is associated with personality and psychopathology, *PLoS ONE* (2023). <u>DOI:</u> <u>10.1371/journal.pone.0280427</u>

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