

Researchers study neurological effects of direct eye contact

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Eye contact is a powerful social signal. Another person's direct gaze not only increases physiological arousal, but it has, in fact, several different types of effects on cognition and behaviour. Research has shown that seeing another person's direct gaze increases peoples' awareness of themselves, improves memory for contextually presented information, increases the likelihood of behaving in a pro-social manner, and makes people evaluate the gazer more positively. But why does a direct gaze have such diverse effects?

In a new study, a research team from France and Finland proposes that all these effects are in fact related to the self-referential power of eye contact. Perceiving another's direct gaze first captures the observer's attention onto the other's face. Then, however, it turns the observer's attention "inwards," to the self. As a result, the observers interpret incoming information in relation to themselves, using their self-concept as a background for processing information.

"The direct gaze has the power to enhance the experience that the information present in the situation is strongly related to one's own person. Processing stimuli in relation to oneself acts as an associative 'glue' for perception, memory, and decision-making. This automatically modulates current information processing and related decisions, improving, for example, memory performance," explains Professor Laurence Conty from the University of Paris 10, France.

Another interesting [effect](#) is that people take other people into

consideration and behave more honestly in the presence of another's direct gaze. This is true even when the eyes appear just in a printed poster, for example. Professor Nathalie George from the French Brain and Spine Institute in Paris says that "this is because self-involvement in information processing also heightens the salience of concerns about being a target for others' social evaluation and, consequently, concerns about one's self-reputation. These concerns lead to adopt pro-social, altruistic behaviour."

Remarkably, the effects of eye contact may occur following the presentation of pictures of eyes. This is because the visual perception of a direct gaze is strongly associated with the belief of being the object of another's attention. "The belief of being watched by another is embedded in the perception of the direct gaze. Such a belief has become an intrinsic property of the direct gaze, based on both human evolution and overlearning during early life," explains Professor Jari Hietanen, from the University of Tampere, Finland.

The researchers also speculate that because the effects of eye contact on human cognition seem to be in general positive, [eye contact](#) may have therapeutic potential. This is something that should be investigated in future research.

More information: Laurence Conty et al. Watching Eyes effects: When others meet the self, *Consciousness and Cognition* (2016). [DOI: 10.1016/j.concog.2016.08.016](https://doi.org/10.1016/j.concog.2016.08.016)

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