More to facial perception than meets the eye

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People make complex judgements about a person from looking at their face that are based on a range of factors beyond simply their race and gender, according to findings of new research funded by the Economic and Social Research Council (ESRC).

The findings question a long-held belief that people immediately put a person they meet into a limited number of social categories such as: female or male; Asian, Black, Latino or White; and young or old.

Dr Kimberly Quinn at the University of Birmingham found that people 'see' faces in a multiple of ways. This could have wider importance in understanding stereotyping and discrimination because it has implications on whether and how people categorise others.

Categorisation is not done purely on the [physical features](#) of the face in front of us, but depends on other information as well, including whether the person is already known and whether the person is believed to share other important identities with us.

"How we perceive faces is not just a reflection of what's in those faces," Dr Quinn said. "We are not objective; we bring our current goals and past knowledge to every new encounter. And this happens really quickly - within a couple of hundred [milliseconds](#) of seeing the face."

Dr Quinn and her colleagues explored social categories such as sex, race and age; [physical attributes](#) such as attractiveness; [personality traits](#) such as trustworthiness; and emotional states such as anger, sadness and

happiness.

She found that although social categories are used to gather information on faces, these can be easily undermined. This research found that we reject simple stereotypes when something about the situation alerts us to the fact the [stereotype](#) does not tell the whole story. If we take, for example, a [racial group](#) and the corresponding stereotype of members of that group as unintelligent, seeing a person in that group playing an intellectual game such as chess would tell us to cancel out the stereotype.

In order to investigate the causes, mechanisms, and results of social categorisation, Dr Quinn used techniques from cognitive psychology and neuroscience to investigate how people process faces. The research was designed to provide insight into when and why people categorise others according to social group membership.

Their findings differ from previous research that adopted a 'dual process' approach and assumed people initially categorised faces based on factors such as gender, race or age before determining whether to stereotype them or to see them as unique individuals.

Dr Quinn's findings were more consistent with a single process that initially focuses on 'coarse' information that is easy to detect, and then immediately starts to include more fine-grained processing as time elapses. This model allows for either categorisation or more individuated processing to emerge, and does not assume that categorisation always comes before recognising unique identities – thereby allowing for more diverse outcomes than previously thought.

Provided by Economic & Social Research Council