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# Learned social values modulate representations of faces in the Fusiform Face Area

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## Abstract

Social value processing has been shown to recruit specific neural systems, yet how they are associated with person-specific information, such as facial identity, processed in separate regions remains to be established. The present study examined changes in neural representations in face-selective visual areas due to social value learning. Over four days, participants learned combinations of social (generosity) and reward (point) values orthogonally assigned to naturalistic face images. We found that after learning, activity similarity (measured with fMRI) in the fusiform face area evoked by viewing the faces was related to social value as well as a measure of future social preferences, but was not related to reward value. This shows how learned social values can influence representations in face-selective brain regions thought to primarily encode visual information, and provides a potential neural mechanism for the association of social and visual information relevant to propensities in future social behavior.