

Mirror Neurons Help Us Identify Emotion in Faces

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Madeleine L. Werhane won an APSSC Student Research Award for her work examining mirror neurons' role in the identification of facial emotions. She received the award in May 2012 at the 24th APS Annual Convention.

Mirror neurons are unique in that they engage not only when we perform specific actions, but also when we see others performing specific actions. The same neurons that control hand and mouth actions in monkeys, for instance, are activated when one monkey sees another monkey pick up a piece of food.

Mirror neurons allow humans to learn through observation and communication.

Werhane, who is a student at the University of Puget Sound in Tacoma, Washington, used EEG to study brain activity during an emotion-processing task and an identity-processing task. She determined that "mirror neuron activity was greater when participants processed face emotion compared with face identity, suggesting that mirror neurons may be an important part of the human facial expression recognition system." Werhane's coauthors on her award-winning study were Marcus P. Chen and David R. Andersen, both of the University of Puget Sound.