

# Can Westerners understand emotions from a remote culture? | ScienceBlogs

scienceblogs.com (<https://scienceblogs.com/cognitivedaily/2009/10/08/can-westerners-understand-emot>) · by dmunger on October 8, 2009.



(<http://www.researchblogging.org>) Classical Indian dancing is a tradition that extends back 2,000 years. Unlike much Western dance, it is intended to express specific emotions and tell detailed stories. The *Natyasastra*, a text from the first or second century A.D., offers instructions for how to depict nine primary emotions, and these rules continue to be followed in Indian Classical dance today. This movie demonstrates one form of Indian Classical dance:

As you can see, each gesture has a highly-specific meaning, which, to my eyes, at least, isn't obvious. Yet much research has shown that many emotions share "universal" characteristics. Smiles and frowns seem to be recognized as positive and negative expressions nearly everywhere. So what about the traditional emotions of Indian dance? Can people who've never been exposed to the dances still understand the emotions the dancers intend to express?

In 2000, Ahalya Hejmadi, Richard Davidson, and Paul Rozin showed videos of a dancer (Hejmadi herself) depicting 10 emotions using Indian dance to 48 Americans and 47 Indians. (The emotions depicted were Anger, Disgust, Fear, Heroism, Humor, Love, Peace, Sadness, *Lajya* -- shame/embarrassment/shyness, and Wonder) Half the viewers were given a list of possible emotions and asked to pick which one was being depicted. The other half were asked to simply write a word or words to describe the emotion being depicted. A total of 30 videos were shown, three for each emotion.

On the multiple-choice task, there was no significant difference in the Americans' score and the Indians' score: As an aggregate, Americans picked the intended emotion most frequently for 27 of the 30 responses, while Indians picked it 30 out of 30 times. Individually, Americans averaged 16 of 30 correct, while Indians again didn't do significantly better, picking 16.3 out of 30. In both cases, the results can't be explained by chance. With 11 choices for each emotion (the 10 emotions plus "none"), random guessing would yield a score lower than 3.

In the free-response test, in aggregate, both Americans and Indians provided the correct emotion more frequently than any other for *every* performance. Individually, Americans averaged 12.1 correct responses while Indians averaged 17. So Indians performed significantly better than Americans on this test, but again, everyone did much better than they would have if they had simply guessed.

Hejmadi's team says this result is an important extension of the idea of "universal emotions." While most studies of perception of emotions focus on facial expression, in this study, viewers saw full-body expressions of emotion, and were still very successful at identifying the intended emotion.