

A lingua franca of facial expressions

Think you've got a unique form of facial expression? Think again.

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Are facial expressions of emotion the same for all people? When someone is afraid, or happy, will you see the same facial appearance no matter what the person's nationality, race or culture? Can we understand a foreigner's emotional expressions without first attending a facial language school which tutors us in what expressions mean in their culture?

If facial expressions of emotion are universal, does that mean they are innately determined? Do we inherit the particular facial muscular movements for fear, anger, sadness and so forth? Is it our genes that determine which facial muscles contract when we feel one way or another? And, if facial expressions of emotion are universal and innately determined, are they the product of evolution? Are human facial expressions of emotion similar to those shown by other primates? Do the principles that explain why our lips turn down in

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sadness rather than up, also explain the facial muscular movements of the chimpanzee or the wolf?

Charles Darwin said the answer to all of these questions was unmistakably yes. The book in which he did so, *The expression of the emotions in man and animals*, published in 1872, was an immediate bestseller - 9,000 copies sold in London in the first four months after it was published. By his own account, most people in Darwin's time believed facial expressions to be universal despite little evidence to that effect. Darwin obtained new evidence supporting the universality of some expressions by asking those who travelled in different countries to answer a list of questions he'd devised about the appearance of each emotion.

But the basis for Darwin's own espousal of the universality of facial expressions was weak. For example, in the questions he set about people in different cultures, he gave the answer he was expecting: 'is astonishment expressed by the eyes and mouth being opened wide, and by the eyebrows being raised?'.¹ He should have asked simply, what emotion is shown when the eyes and mouth...

For most of the twentieth century, Darwin's book on expression was ignored. Instead, most social and behavioural scientists came to believe that facial expressions, far from being universal, were unique and specific to each culture. If beliefs, attitudes, values, personality and psychopathology were all the product of child

development, which themselves varied with social class and culture, how could emotion, a vital part of social life, not also be totally shaped by the same forces? But the cultural relativists had no better evidence for their widely accepted views.

Only in the last thirty years has there been careful, scientific study about whether or not there are universals in facial expressions of emotion. This new evidence strongly supports Darwin, but the argument against universals continues unabated. Let us first consider the evidence and the arguments against it, and then why it is still so difficult for many social scientists to accept an evolutionary view of emotional expression.

My colleague Wallace Friesen and I used one of Darwin's methods - showing photographs of expressions to people and asking them to judge what emotion it showed. Darwin did this only in England. We did, quite independently, Carroll Izard,² and later other scientists, showed photographs to people in more than twenty different countries encompassing Western and non-Western cultures. In every instance, the emotion selected by the majority in one culture was the same emotion selected by the majority in every other culture. Expressions were labelled with the same emotion word (translated, of course) in every culture, just as Darwin had predicted. There was never an instance of disagreement that would seriously challenge universality. It never happened, for example, that the majority in one culture labelled a photograph as say, sadness, when the majority in another labelled it as say, anger.

Ray Birdwhistell, an anthropologist who had earlier written³ about how his own observations led him to conclude that Darwin was wrong, came up with an ingenious challenge to this very strong evidence. It was not evolution that was responsible for our results, but Charlie Chaplin and John Wayne, Birdwhistell declared. All the people we had studied had been exposed to the same mass media - movies, magazines and television. Everyone might have learned the same expressions from the media. The only way to answer Birdwhistell's challenge was to study a visually isolated group who had no contact with the media. I did just that, working with a preliterate culture in the Highlands of Papua New Guinea. And I found⁴ that these Highlanders associated the same

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facial expressions with fear, anger, disgust, sadness and enjoyment as the people in the literate cultures. I also asked other members of this culture to show us how their face would look if they found out their child had died, or they met friends, or were about to fight. They produced virtually the same expressions we see in Western cultures.

James Russell, a psychologist interested in the language of emotion who is committed to the view that

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emotion is socially constructed, charged⁶ us with in some way signalling to our New Guinea subjects what response we wanted them to give. The best way to settle such a dispute was for another scientist who opposed universality to go to New Guinea and repeat my experiment. Fortunately, just that happened. The anthropologist Karl Heider and psychologist Eleanor Rosch were

working among the Dani, another very isolated culture in the western part of New Guinea (now called West Irian). But after applying my research methods, these careful scientists, committed to an anti-universals viewpoint, found very strong evidence of universals!⁷ Russell and the others who reject universals simply ignore the work by Heider and Rosch.

In 1973, I put together a book entitled *Darwin and facial expression*,⁸ reporting all the findings I have summarized here, plus other evidence in support of Darwin from studies of infants and primates. Margaret Mead's review of the book,⁹ denounced its assault on cultural relativism and her protégé and friend, R L Birdwhistell. Maybe everyone interprets photographs of facial expressions the same way Mead acknowledged, but that does not mean their spontaneous expressions would be the same. Her argument seemed illogical to me. How would people know how to interpret the photographs, why would they interpret them the same way in every culture, if they had not been seeing these expressions day to day?

The best answer to Mead's challenge came from experiments with spontaneous behaviour, measuring the expressions people show rather than studying how they interpret photographs of expression. We videotaped the spontaneous facial expressions of Japanese students in Tokyo and American students in Berkeley, while they watched some gruesome films. The camera was hidden so they did not know we were recording their reactions. In one set-up they sat alone, while in the second a scientist dressed in a white laboratory coat sat with them. When they were alone, we expected the Japanese and Americans to show the same facial expressions. But, in a social situation, we expected the Japanese to follow what we term display rules - masking signs of unpleasant emotions in the presence of an authority figure. Display rules specify who can show which emotion to whom. They are socially learned, culturally variable and, I believe, responsible for much of the widespread impression that expressions differ across cultures.

Our expectations were completely confirmed. When alone, the expressions were identical. When there was an authority figure present, there was an enormous difference between the Japanese and Americans. The Japanese masked their negative feelings with smiles, while the Americans continued to show negative facial

expressions. In this one experiment we had shown the dual influence of biology and culture.¹⁰

Why has there been such resistance to accepting the evidence of universals in facial expression of emotion? The universality findings contradict the Lockean view of human beings which has dominated social thought in Western countries and in the former Soviet Union. We cannot be blank slates, upon which family, culture and state can write their messages unimpeded, if something as central to our social life as emotion is not completely the product of our environment.

The finding of universals in facial expressions of emotion is important in a number of ways. First, and most fundamentally, it means we must recognize that we are biosocial creatures. To understand this vital aspect of our social lives, we must consider not just nurture, but nature; not just learning, but our evolutionary history. What impels our emotional behaviour is not simply a product of our own lives, and what we have found to be adaptive, but also reflects what has been adaptive in our ancestral environment. Without an evolutionary perspective we can not understand emotions, and why we act the way we do when we experience fear, anger, sadness and so forth, any more than we could understand our emotional behaviour if we could not appreciate how we learn from experience.

Universals in facial expression is relevant to a second issue of huge importance. In Darwin's time, racists argued that Europeans had descended from a different, more advanced group of ancestors than Africans. Darwin argued that evidence for universals in emotional expressions was counter to such a racist account, and showed all human beings had common ancestors. That we are united, not divided as a species.

The fact that our universal expressions of emotion are found in some other animals as well, was important to Darwin, and should be important to us. We are not the only animals to experience fear, pleasure, pain, anger or sadness. This basic tenet of evolutionary thinking, the continuity of the species, may also make us a bit uncomfortable in our dealings with other animals. It asks that

we recognise that the animals we cage in zoos and experiment upon may not only show some of the same expressions, but may also experience some of the same feelings.

On a more practical level, evidence of universals has implications for how we communicate with those who differ from us. If people

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are not trying to mask or suppress their emotions, then their expressions will be understandable to us no matter what the race, culture, language, age or sex of the person who shows them. That is a big 'if', however, for we often follow display rules in social life to manage and disguise our emotional expressions, and these do vary with age, sex, social class and culture ☉

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