

When you're smiling, it may feel like the whole world is smiling with you, but a new study suggests that some facial expressions may not be so universal. From Science, Michael Price, October 17, 2016; permission conveyed through Copyright Clearance Center, Inc. They were adopted by host families and took clan names; Crivelli became "Kelakasi" and Jarillo, "Tonogwa." They spent many months learning the local language, Kilivila. When it came time to begin the study, they didn't need translators or local guides. They simply showed 72 young people between the ages of 9 and 15 from different villages photos from an established set of faces used in psychological research. The researchers asked half the Trobrianders to link each of the faces to an emotion from a list: happiness, sadness, anger, fear, disgust, or hunger. The other half was given a different task. Crivelli found that they matched smiling with happiness almost every time. Results for the other combinations were mixed, though. For example, the Trobrianders just couldn't widely agree on which emotion a scowling face corresponded with. Some said this and some said that. It was the same with the nose-scrunching, pouting, and a neutral expression. There was one facial expression, though, that many of them did agree on: a wide-eyed, lips-parted gasping face (similar to above) that Western cultures almost universally associate with fear and submission. The Trobrianders said it looked "angry." If this is indeed the case, such cultural diversity in facial expressions will prove challenging to emerging technologies that aspire to decode and react to human emotion, he says, such as emotion recognition software being designed to recognize when people are lying or plotting violence. Crivelli and longtime friend and research partner, Sergio Jarillo, an anthropologist at the American Museum of Natural History in New York City, traveled to the Trobriand Islands off Papua New Guinea's east coast, where about 60,000 indigenous Trobrianders live. The new findings call into question some widely held tenets of emotional theory, and they may undercut emerging technologies, like robots and artificial intelligence programs tasked with reading people's emotions.