Researcher: Horses Are "Emotional Sponges"

A group of Welsh mares with limited past human interactions exhibited signs of stress and relaxation in response to respective "angry" and "joyful" human facial expressions and sounds.

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High sensitivity to human emotions has led the researchers to urge handlers to take caution when expressing their emotions, because the horses are paying attention—and reacting, said Lansade. | Photo: iStock

It's in the way you say it. It's in the faces you make. Forget words and language—horses are paying attention to your emotions with their eyes and ears. And the emotions humans express are affecting their equids—whether we mean for them to or not.

"Horses are truly emotional sponges, and they react strongly and very rapidly to our human emotions," said Léa Lansade, PhD, of the French Horse and Riding Institute and the National Institute for Agricultural Research's behavior science department, in Tours.

The Experiment: "Strong Reactions"

In a recent study, Lansade and her fellow researchers, including PhD student Miléna Trösch, tested horses' ability to associate human vocal and facial emotional expressions. They projected short video clips without sound of an unfamiliar woman on either side of each study horse. In one video the woman was making an "angry" face; in the other she was making a "joyful" face.

At the same time, the scientists played an audio clip of a different, also unfamiliar, woman vocalizing either anger or joy through nonverbal sounds (no words), such as *grrr* and *aah*.

The test horses—34 Welsh mares—only interacted with humans for basic maintenance and care. But despite having such a limited relationship with humans and despite being exposed to the emotions of an unknown human, the mares had "strong reactions" to the emotions displayed in the experiment, said Lansade.

The mares' heartbeats rose dramatically, and their behavior became indicative of stress—with stiff, alert postures—when they heard sounds of angry human emotions compared to happy ones, she said. By contrast, with joyful vocal expressions, they became "more peaceful," with relaxed postures and lower heart rates.

Staring at the Mismatch

Human facial expressions that did not match the sounds on the audio clips "intrigued" the horses, said Lansade. "They spent much more time looking at the incongruent ('wrong') image, because it was in contrast to their expectations," she explained. "This is something we often see in horses, and not just in this study, when it comes to reacting to things they don't expect.

"So in this study, for example, they were expecting to see a smiling face when they heard an 'aah' of contentment," she continued. "But when that didn't happen, and there was an angry face there, they were surprised and wanted to observe the scene more closely."

Keeping Their High Sensitivity in Mind

This high sensitivity to human emotions has led the researchers to urge handlers to take caution when expressing their emotions, because the horses are paying attention—and reacting, said Lansade. "What was really surprising in this study was that we had the horses listen to very short sounds of only a few seconds in length," she said. "And that immediately provoked a strong emotional response in them, with a changing cardiac rhythm and an alert posture."

The horses reacted even though they were exposed to recordings that had nothing to do with them. So it's likely that horses react to human emotions even when they're not directed toward them, she added.

"It's probable that arguing with another human in front of a horse or by contrast laughing in front of them, would induce emotions in the horses that witness the scene," she said. "And that could have repercussions on the way they perceive us."

Whether such interspecies sensitivity is reciprocal remains to be determined, she added.

"I don't know if humans react as strongly to equine emotions," Lansade said. "We'll have to test that!"