

# **Humans can distinguish between positive and negative domestic horse vocalizations**

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## **Lay Abstract**

Domestic horses are social animals that rely on various vocalizations for communication. Vocalizations may be elicited in positive contexts, such as reuniting with a herd member or expectation of receiving food rewards, or negative contexts such as separation of a mare and foal or social aggression. Human recognition of the context of a horse vocalization can allow appropriate action to be taken to alleviate a negative situation or provide positive situations. This study used an online survey to investigate whether humans can distinguish between positive and negative horse vocalizations. A total of 309 participants categorized 32 vocalizations according to whether they believed the vocalization was positive or negative. The vocalizations were collected from immature, mature, male and female horses, with a subset taken from popular media (i.e. animated movies and shows). Statistical analysis revealed that humans correctly distinguished positive and negative vocalizations approximately 64% of the time regardless of the source of the clip. Females were better at classifying the vocalizations compared to males, perhaps because more females are involved with horses. Other demographics collected during the survey including age, experience with horses, and residing country appeared to not play a role in humans' ability to correctly categorize

the vocalizations. Positive or negative vocalizations may be indicative of what the horse is feeling, and accurately interpreting cues from the horse enables humans to respond to the situation and alter the experience if necessary to create the most positive outcomes. Vocalizations in popular media seem to accurately portray the emotion connected with the scenario, enabling even people unexperienced with horses to understand the emotional context. The ability to correctly classify vocalizations can impact horse welfare in all areas of the animal's life, including training, housing, husbandry and human-horse interactions.