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## The relationship between dog ownership and the ability to recognize human facial emotion

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Published in: Proceedings of the 43rd Congress of the International Society for Applied Ethology

Publication date: 2009

Document version Publisher's PDF, also known as Version of record

*Citation for published version (APA):* Meyer, I. H. C., & Kristensen, H. H. (2009). The relationship between dog ownership and the ability to recognize human facial emotion. In *Proceedings of the 43rd Congress of the International Society for Applied Ethology* (pp. 555)



# **Proceedings of the 43rd Congress of the International Society for Applied Ethology**

Applied Ethology for Contemporary Animal Issues

Cairns, Queensland, Australia, 6-10 July 2009

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Nonverbal signals account for a large part of what we perceive when communicating with another human being. When interacting with dogs however, communication relies almost solely on nonverbal signals. Experience from owning a dog might increase a dog owner's nonverbal communicative capacities in general and improve his or her ability to detect social signals in other humans. In a pilot study, 77 veterinary students (67 females, 10 males, mean age 23.4±2.4 years) were tested on their ability to recognize facial emotion in humans, using the Micro-Expression Training Tool® (METT). In a multiple choice test, the students were tested on 28 faces showing the following seven emotions four times each: sadness, anger, surprise, fear, disgust, contempt and happiness. The faces were shown for 3 seconds each, after which the students were asked to identify which one of the seven emotions they had just seen. The METT score was calculated as number of correct responses on the METT test. After the test the students were asked to fill out a questionnaire regarding their experience with dogs and other animals. 53 students owned a dog or had owned a dog at some point growing up (dog owners), whereas 24 students had never owned a dog (non-dog owners). Dog owners had an average METT score of 23.9 (SD=2.6, q1=22, q3=26) whereas non-dog owners had an average METT score of 25 (SD=2.9, q1=24, q3=27). Using the Kruskal Wallis test it was found that this difference is significant (X2=3.95 df=1; p=0.0468). Our tentative conclusion is that owning a dog does not necessarily increase a person's nonverbal communicative capacities. On the contrary this pilot study may suggest that dog owners are inferior to non-dog owners in recognizing human facial emotion.