MICE AND COWS ARE ABLE TO PERCEIVE HUMANS’ EMOTIONS THANKS TO ODOURS

Animals are able to perceive emotions of their fellows via olfactory signals inducing behavioural and physiological changes (Bombail, 2019). In a prey-predator relationship, they are also able to identify animals from other species by their smell (Takahashi et al., 2005, Arnould et al., 1998). As the human-animal relationship is a key factor of the well-being of both animals and humans, are animals able to perceive human emotions via olfactory signals?

Some recent studies have explored this question but only for pets (D’Aniello et al., 2018) or horses (Sabiniewicz et al., 2020). To go further, we tested whether the smell of a stressed human alters the behaviour of farm animals like cows or laboratory animals like mice. Two odours of sweat were collected from 25 students: a "stress" odour after an exam and a "non-stress" odour after a lecture. Two experiments were conducted: one on 20 male mice under controlled conditions and the other on 10 cows in a farm.

The results showed that the mice defecated more in the presence of the odour of a stressed human while the cows spent more time smelling the non-stress odour. In other words, mice tend to display a fear response in the presence of the odour of a stressed human, whereas cows show a preference for a non-stress odour. This preliminary work indicates that mice and cows perceive and react differently to human emotional odours. They are the first steps towards improving the welfare of farm animals.

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To know more

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