The Veterinary Journal 2003, 165, 180-181 doi:10.1016/S1090-0233(02)00239-3



Guest Editorial

Human–Animal Interactions – The Importance of Examining The Whole of a Subject

The psychological and concomitant health benefits for humans of petting animals are well known (Friedmann, 1995). However, as Odendaal and Meintjes (2003) reveal in their paper, published in this issue of The Veterinary Journal, this is probably only half the story. Their work suggests similar physiological changes occur in dogs during such positive human interaction, i.e., petting produces similar effects in the giver and receiver ("the petting effect"). Whilst this may come as no surprise, the broader implications should not be overlooked.

The work obviously reinforces the integrity of the scientific study of human-animal relationships. Elucidating the physical basis for psychological phenomena helps to broaden their acceptance and increases awareness of their potential importance. The knowledge base of this discipline is becoming ever more important to practicing veterinary surgeons as they appreciate the significance of understanding the pet-owner relationship to the success of their business. Specifically, this work also opens up the potential to investigate health benefits for dogs of "the petting effect" as both a preventive health and recovery treatment measure.

Veterinary behavioural medicine is also a relatively new but integral part of modern veterinary practice, (Horwitz et al., 2002), but this growth in interest and importance has not been matched by a similar growth in the fundamental research needed to underpin the discipline. Matters of central importance, such as the need for objective biological determinants of diagnosis must be addressed if veterinary behavioural medicine is to achieve its full potential as a scientific discipline (Sheppard & Mills, 2002). It is only with the establishment of norms, that we can hope to recognise true abnormalities or properly investigate factors affecting the normal response. The identification of a physiological profile in dogs associated with positive interaction with humans is a good example of the sort of solid foundation which will allow much further investigation of a variety of phenomena. For example, many dogs persist in attention seeking behaviours which become very problematic for their owners, and many other animals become very distressed, leading them to eliminate, vocalise and/or be destructive when left alone. The findings of Odendaal and Meintjes (2003) means it is now possible to begin to investigate whether the response to human interaction in these animals is normal at the biochemical and physiological level and evaluate the implications of this for diagnosis and treatment.

The study of animal welfare has largely focused on the development of measures of animal suffering (Dawkins, 1990) and then determining what is acceptable. By contrast, the more positive approach of trying to measure positive feelings has received relatively little attention. Whilst we cannot know for sure how the physiological changes reported by Odendaal and Meintjes (2002) are represented centrally as feelings, it is logical to imply that if dogs are sentient, these responses are most likely to reflect a state of positive well-being. Accordingly their work makes an important contribution to the wider field of animal welfare science and especially the more recent pursuit of measures of positive hedonic state.

In a world where the volume of information available to us is forever growing and individuals are being encouraged to specialise in order to be most effective, it is important to appreciate the context of our work. We must not lose sight of the fact that veterinary science always has been, and always will be, a multidisciplinary science and appreciate the value and impact of scientific knowledge from all sources, whether we be a specialist or general practitioner.

DANIEL S. MILLS

Animal Behaviour, Cognition and Welfare Group, Department of Biological Sciences, University of Lincoln, Riseholme Park, Lincoln LN2 2LG, UK E-mail: dmills@lincoln.ac.uk

REFERENCES

- DAWKINS, M. S. (1990). From an animal's point of view: Motivation, fitness, and animal welfare. *Behavioral and Brain Sciences* 13, 1–61.
- FRIEDMANN, E. (1995). The role of pets in enhancing human well being: Physiological effects. In: *The Waltham Book of Human–Animal Interactions Benefits and Responsibilities of Pet Ownership*, ed. I. Robinson, pp. 33–53. Oxford: Pergamon Press.
- HORWITZ, D. F., MILLS, D. S. & HEATH, S. E. (2002). BSAVA Manual of Canine and Feline Behavioural Medicine. Gloucester: BSAVA.
- Odendaal J. S. J. & Meintjes R. A. (2003). Neurophysiological correlates of affiliative behaviour between humans and dogs. *The Veterinary Journal* **165**, 295–300.
- SHEPPARD G. & MILLS D. S. (2002). Construct models in veterinary behavioural medicine: Lessons from the human experience. *Veterinary Research Communications*, in press.