

INVITED ESSAY

**ILLUMINATING ISSUES OF COMPANION ANIMAL
WELFARE THROUGH RESEARCH INTO HUMAN-ANIMAL
INTERACTIONS**

A L Podberscek

Animal Welfare and Human-Animal Interactions Group, Department of Clinical Veterinary
Medicine, Madingley Road, Cambridge CB3 0ES, UK

Final acceptance: 20 February 1997

Introduction

Companion or pet animals are an integral part of many societies. Ownership rates of at least one pet for every two households (50%) have been reported in numerous countries, including the UK (Pet Food Manufacturers' Association 1996), The Netherlands (Endenburg *et al* 1990), Poland (Fogle 1994), the USA (Rowan 1992), France (Anon 1995a) and Australia (Anon 1995b). While on one hand the animals gain from their close association with humans by being sheltered, fed and loved, they can also suffer neglect, cruelty, abandonment, unnecessary euthanasia, and may develop behaviour problems. The quality of our relationships with these animals is indeed variable.

The study of human-animal relationships and interactions, now known as anthrozoology, has developed at a dramatic pace over the last 30 years and has led recently to the formation of an organization to promote it: the International Society for Anthrozoology (ISAZ). This new field encompasses many different academic areas including anthropology, ethics, history, psychology, sociology, ethology, and veterinary and human medicine, and is concerned with our relationships with companion, farm, laboratory, zoo and wild animals.

To date, most of the research on human-companion animal relationships has centred on the benefits pets bestow upon humans. The purpose of this paper, however, is to highlight how research in this field can benefit the companion animals in our society. To do this the paper is divided into two main sections: 1) attitudes and behaviour towards companion animals, and 2) the abandonment and killing of companion animals. In the first section, I will outline the major factors which affect our attitudes to animals, discuss the development of humane attitudes, and show how assessing attitudes can be useful for the animals. In the second section, I will highlight the extent of the dilemma of abandoned and needlessly euthanased animals and explain why it occurs. Finally, I will show how we can use this knowledge to reduce its incidence through the treatment and prevention of behaviour problems, and the improvement of companion animal temperament and rehoming rates.

Attitudes and behaviours towards companion animals

What affects our attitudes?

Historically, attitudes towards companion animals have fluctuated, although generally they have become more positive and humane over time (see, for example, Serpell 1986; Ritvo 1988). Our attitudes and behaviours towards animals are influenced by many factors: cultural (for example, Kellert 1994; Pifer *et al* 1994; Laurent 1995), demographic (for example, Kellert & Berry 1981; Gallup & Beckstead 1988; Bowd & Bowd 1989), and the physical and

behavioural attributes of the animals (for example, Burghardt & Herzog 1989; Driscoll 1992). Although relatively few of these factors can be altered once established, our attitudes to animals are still amenable to change and this, on occasion, can occur quite rapidly. These changes can be brought about through personal experience, and the influence of many other sources including television, newspapers, literature and film. For example, a press report of outbreaks of rabies in dogs in Europe in the 19th century resulted in a fear of dogs which was disproportionate to the actual risk of contracting the disease (see Ritvo 1988; Kete 1994). Similarly, the media attention on dangerous dogs in Britain during the late 1980s and early 1990s brought about a distinct distrust of Rottweilers and Pit Bull Terriers in particular, even though hospital records showed that other breeds, such as the German Shepherd, were more likely to bite (Podberscek 1994). Brown (1985) reported that anti-pet publicity and negative public sentiment were very common during the 1960s and early 1970s in the USA but that this subsided when articles began to appear in the popular press on the beneficial effects of pets on human health and well-being. Indeed, our increasing knowledge of animal behaviour and disease prevention and control have contributed enormously towards effecting more positive attitudes to companion animals. Unfortunately, there is still very little information available on the portrayal of animals in television programmes, newspapers, film and literature, and the effect it has on our attitudes and behaviour towards them, although this is slowly changing (see, for example, Herzog & Galvin 1992; Lutts 1992; Podberscek 1994; Johnson 1996; Paul 1996). With such information we would be better able to produce more effective pro-companion animal welfare articles, programmes and films.

The development of humane attitudes – keeping pets

A major area of interest, historically, in human-animal interactions has been in the relationship between childhood cruelty towards animals and later aggression towards humans (Maehle 1994), although empirical data have only lately become available (see Ascione 1993 for a detailed review). More recently, attention has focused on how a child's interactions with pet animals may affect its later adult behaviour towards them. For example, Paul and Serpell's (1993) retrospective survey of young adults in the UK showed that higher levels of childhood pet keeping were related to more positive attitudes towards pet animals and greater concerns about the welfare of non-pet animals and humans. Membership of animal welfare charities and environmental organizations was also found to be associated with pet keeping during childhood. Other research on this topic has produced similar findings (for example, Serpell 1981; Poresky *et al* 1988). In addition, Bowd (1984) found that childhood pet ownership was associated with more positive attitudes to other kinds of animals including lions, pigs, chickens and snakes. However, there is still a lack of understanding as to how humane attitudes towards animals develop.

The development of humane attitudes – humane education

One of the ways it might be possible to engender more caring and positive attitudes to animals is through school-based humane education programmes. Increasing children's knowledge of the needs and behaviour of animals may not only potentially engender more respect for animals but could also reduce the incidence of animal abuse due to ignorance. To date, a few studies have been conducted on the effectiveness of humane education on attitudes to animals (Vockell & Hodal 1980; Fitzgerald 1981; Ascione 1992), and while positive effects were detected, these were much less impressive than had originally been

hoped. This could be because it is still not known what the content and frequency of these programmes should be. It is also not known whether children with apparently more positive attitudes to animals actually *behave* more positively towards them; reported attitudes are not necessarily predictive of actual behaviours (see Eagly & Chaiken 1993, Chapter 4 for a discussion). What is certain, though, is that we need more research on human-companion animal relationships and the development of humane attitudes so that we can develop useful and practical education programmes for the generations to come. If we can engender more positive, caring attitudes and behaviours towards companion animals then this must be beneficial for them.

Assessing attitudes

By assessing the attitudes that people have to companion animal welfare-related issues, such as neutering (Blackshaw & Day 1994), tail-docking (Noonan *et al* 1996), and de-clawing (Landsberg 1991) we can gain insights into how we might bring about positive change. For example, Noonan *et al* (1996) studied the attitudes of veterinarians and breeders of traditionally docked breeds of dog in Queensland, Australia, to tail-docking. While one of the main reasons cited by both groups for docking was that this was a requirement of the breed standard, the authors pointed out that this standard had changed and now allowed for the showing of dogs with intact tails. In this case, increased public awareness about the change in ruling could bring about a decline in the docking of dogs' tails.

The abandonment and killing of companion animals

The scale of the problem

In pet-keeping societies there are usually problems with unwanted animals either being abandoned on the street or at an animal shelter, or being euthanased at the veterinarian's or owner's hands. Roughly 500,000 surplus companion animals are abandoned or found straying in Britain each year (Council for Science and Society 1988) while in the USA it has been estimated that over 8,000,000 cats and dogs are received by animal shelters each year (Arkow 1994). A great many pets are euthanased at shelters because new homes cannot be found for them, and animal shelters are limited as to how many animals they can properly house and feed. It has been estimated that over 50 per cent of the cats and dogs kept in animal shelters in the USA are euthanased annually (Rowan 1992; Arkow 1994; Patronek & Glickman 1994). Ironically, in the USA, animal shelters have been cited as the leading cause of death for cats and dogs (Olson *et al* 1991). While some shelters exercise a 'no destruction' policy, it is still of prime importance to find good homes for the animals, as a long life in kennels or cages is not desirable. Another place where animals can be euthanased is at a veterinary clinic. Stead (1982) found that approximately 46 per cent of dogs and 63 per cent of cats euthanased at veterinary clinics in Scotland were physically healthy.

Why companion animals are abandoned and killed

Recent studies of human-companion animal relationships have provided important information concerning the various reasons why pet animals are abandoned or euthanased. With this, we should be better able to develop strategies aimed at decreasing the incidence of such problems. One of the most common reasons for the abandonment or euthanasia of pets is behaviour problems (33% of dogs, 6% of cats given up for adoption at the Blue Cross

Animal Charity, UK [Bailey 1992]; 17.5% of dogs, 5% of cats given up for adoption at Wood Green Animal Shelters, UK [Council for Science and Society 1988]; 13–18% of dogs, 7–9% of cats euthanased at veterinary clinics in Scotland [Stead 1982]; 26.4% of dogs given up for adoption in the USA [Arkow & Dow 1984]). Other common reasons include those related to lifestyle changes; for example, a new baby in the household, moving house and too many pets already. These could more appropriately be called convenience killings. Stead's (1982) study of Scottish veterinary practices showed that, of the cats and dogs euthanased, convenience killings were a major reason for destruction (21–26% of dogs, approximately 41% of cats). These figures highlight the fact that some human-companion animal relationships are very weak. Sadly, too, there is a degree of acceptance of the disposability of companion animals in western society.

Reducing the incidence of abandonment and killing

The treatment and prevention of behaviour problems

It follows then, from the previous section, that if we can reduce the incidence of behaviour problems in pet animals we can expect a subsequent decrease in the incidence of abandonment and unnecessary euthanasia. To do this we need to firstly consider the factors which influence the development of behaviour problems. Although some behaviour problems may be genetically or medically related, one cannot discount the influence of the environment (Borchelt & Voith 1986; Blackshaw 1992; Serpell & Jagoe 1995; Podberscek & Serpell 1997), including the owner's attitudes and personality (O'Farrell 1987, 1995). An understanding of these factors is crucial to the development of effective treatments and preventative measures. Sometimes simple education about why an animal behaves in a certain way is enough to make the animal more acceptable in the eyes of the owner. There is still much to learn because although behaviour modification techniques have been developed and well publicised over the last 20 years (see, for example, Campbell 1975; Hart & Hart 1985; Neville 1990, 1991; O'Farrell 1992) few have been tested scientifically (see Voith *et al* 1992; Clark & Boyer 1993, for examples of controlled studies).

The extremely important work on the effects of early handling of cats and dogs, and the finding of 'sensitive' periods for the bonding to people, have provided us with a simple and effective way to help reduce the incidence of 'troublesome' pets (see, for example, Freedman *et al* 1961; Scott & Fuller 1965; Karsh 1984). A well socialized pet is a great start to ensuring a strong, positive human-animal relationship and this can be crucial for the animal's survival. In addition, the breeding of companion animals for good temperament is another way in which we can work to effect positive relationships with them. Some behavioural traits such as nervousness and aggression in dogs (see, for example, Goddard & Beilharz 1983; Willis 1989, 1995) and friendliness and aggression in cats (Turner *et al* 1986; Reisner *et al* 1994; McCune 1995) undoubtedly have a genetic basis, although the degree to which these traits are acquired is unclear.

Improving rehoming rates

To improve the success rate of rehoming, research has recently centred on evaluating the temperament of animals at shelters and improving the matching of pets to prospective owners (Karsh & Turner 1988; van der Borg *et al* 1991; Ledger *et al* 1995; Wickens *et al* 1995). By improving the owner-companion animal match, it is hoped that fewer new or rehomed pets will be abandoned or euthanased. Indeed, some evidence has been found that the

strength of the human-cat relationship affects rehoming of cats adopted from shelters. The stronger the relationship, the less likely it is that the owner will subsequently try to rehome the animal (see Karsh & Turner 1988). Studies into what attracts people to particular animals in shelters also provide insights into how we can improve the animal's chances of rehoming. For example, Wells and Hepper (1992) found that cage cleanliness and the presence of a toy in the cage made dogs at an animal shelter more attractive to prospective pet owners.

Conclusions

The study of human-companion animal relationships and interactions can provide us with information that can both directly (treatments for behaviour problems) and indirectly (the development of effective humane education programmes) enhance the welfare of the animals. However, knowledge is of little consequence unless it is properly conveyed. For instance, the veterinarian is often the first point of contact for new pet owners, and it is here that much good can be done for the development of a positive human-companion animal relationship through the conveyance of knowledge and advice. Sadly, though, teaching in the areas of animals in society, animal behaviour and behaviour therapy is extremely limited or non-existent in veterinary schools; this needs to be addressed.

Undoubtedly, the associations between companion animals and people are complex. With carefully controlled studies and effective application, not only will we be in a better position to enjoy the benefits of having companion animals but they will be able to enjoy an enhanced level of welfare.

Acknowledgements

Thanks to R Harry Bradshaw, Jill Nicholson and Elizabeth Paul for their constructive comments on earlier versions of this paper.

For more information about the International Society for Anthrozoology (ISAZ) contact the Membership Secretary, Dr D Goodwin, Anthrozoology Institute, School of Biological Sciences, University of Southampton, Southampton SO16 7PX, UK.

References

- Anon 1995a The French and their pets. *Anthrozoös* 8: 114
- Anon 1995b Life with pets in urban Australia. *Anthrozoös* 8: 112-114
- Arkow P 1994 A new look at pet 'overpopulation'. *Anthrozoös* 7: 202-205
- Arkow P S and Dow S 1984 The ties that do not bind: a study of the human-animal bonds that fail. In: Anderson R K, Hart B L and Hart L A (eds) *The Pet Connection* pp 348-354. CENSHARE, University of Minnesota: Minneapolis, USA
- Ascione F R 1992 Enhancing children's attitudes about the humane treatment of animals: generalization to human-directed empathy. *Anthrozoös* 5: 176-191
- Ascione F R 1993 Children who are cruel to animals: a review of research and implications for developmental psychopathology. *Anthrozoös* 6: 226-247
- Bailey G 1992 Parting with a pet survey. *Journal of the Society for Companion Animal Studies* 4: 5-6
- Blackshaw J K 1992 Feline elimination problems. *Anthrozoös* 5: 52-56
- Blackshaw J K and Day C 1994 Attitudes of dog owners to neutering pets: demographic data and effect of owner attitudes. *Australian Veterinary Journal* 71: 113-116

- Borchelt P L and Voith V L** 1986 Elimination behavior problems in cats. *The Compendium on Continuing Education* 8: 197-205
- Bowd A D** 1984 Fears and understanding of animals in middle childhood. *Journal of Genetic Psychology* 145: 143-144
- Bowd A D and Bowd A C** 1989 Attitudes toward the treatment of animals: a study of Christian groups in Australia. *Anthrozoös* 3: 20-24
- Brown D** 1985 Cultural attitudes towards pets. *Veterinary Clinics of North America: Small Animal Practice* 15: 311-317
- Burghardt G M and Herzog H A** 1989 Animals, evolution and ethics. In: Hoage R J (ed) *Perceptions of Animals in American Culture* pp 129-151. Smithsonian Institution Press: Washington DC, USA
- Campbell W E** 1975 *Behavior Problems in Dogs*. American Veterinary Publications Inc: Santa Barbara, USA
- Clark G I and Boyer W N** 1993 The effects of dog obedience training and behavioural counselling upon the human-canine relationship. *Applied Animal Behaviour Science* 37: 147-159
- Council for Science and Society** 1988 *Companion Animals in Society*. Oxford University Press: Oxford, UK
- Driscoll J W** 1992 Attitudes toward animal use. *Anthrozoös* 5: 32-39
- Eagly A H and Chaiken S** 1993 *The Psychology of Attitudes*. Harcourt Brace Jovanovich: Orlando, USA
- Endenburg N, Hart H and de Vries H W** 1990 Differences between owners and nonowners of companion animals. *Anthrozoös* 4: 120-126
- Fitzgerald T A Jr** 1981 Evaluating humane education: The Jefferson County study. *Humane Education* 5: 21-22
- Fogle B** 1994 Unexpected dog ownership findings from Eastern Europe. *Anthrozoös* 7: 270
- Freedman D G, King J A and Elliot O** 1961 Critical periods in the social development of dogs. *Science* 133: 1016-1017
- Gallup G G and Beckstead J W** 1988 Attitudes toward animal research. *American Psychologist* 43: 474-476
- Goddard M E and Beilharz R G** 1983 Genetics of traits which determine the suitability of dogs as guide-dogs for the blind. *Applied Animal Ethology* 9: 299-315
- Hart B L and Hart L A** 1985 *Canine and Feline Behavioral Therapy*. Lea & Febiger: Philadelphia, USA
- Herzog H A and Galvin S L** 1992 Animals, archetypes and popular culture: tales from the tabloid press. *Anthrozoös* 5: 77-92
- Johnson K R** 1996 The ambiguous terrain of petkeeping in children's realistic animal stories. *Society and Animals* 4: 1-17
- Karsh E B** 1984 Factors influencing the socialization of cats to people. In: Anderson R K, Hart B L and Hart L A (eds) *The Pet Connection* pp 207-215. CENSHARE, University of Minnesota: Minneapolis, USA
- Karsh E B and Turner D C** 1988 The human-cat relationship. In: Turner D C and Bateson P (eds) *The Domestic Cat: The Biology of its Behaviour* pp 159-177. Cambridge University Press: Cambridge, UK
- Kellert S R** 1994 Attitudes, knowledge and behaviour toward wildlife among the industrial superpowers: The United States, Japan and Germany. In: Manning A and Serpell J (eds) *Animals and Human Society: Changing Perspectives* pp 166-187. Routledge: London, UK
- Kellert S and Berry J** 1981 *Knowledge, Affection and Basic Attitudes toward Animals in American Society*. US Government Printing Office: Washington DC, USA
- Kete K** 1994 *The Beast in the Boudoir: Petkeeping in Nineteenth-Century Paris*. University of California Press: Berkeley, USA

- Landsberg G M 1991 Cat owners' attitudes toward declawing. *Anthrozoös* 4: 192-197
- Laurent E 1995 Definition and cultural representation of the category *mushi* in Japanese culture. *Society and Animals* 3: 61-77
- Ledger R, Baxter M and McNicholas J 1995 Temperament testing dogs in a rescue shelter: improving owner-dog compatibility. In: Rutter S M, Rushen J, Randle H D and Eddison J C (eds) *Proceedings of the 29th International Congress of the International Society for Applied Ethology* pp 101-102. Universities Federation for Animal Welfare: Potters Bar, UK
- Lutts R H 1992 The trouble with Bambi: Walt Disney's Bambi and the American vision of nature. *Forest and Conservation History* 36: 160-171
- Machle A 1994 Cruelty and kindness to the 'brute creation': stability and change in the ethics of the man-animal relationship, 1600-1850. In: Manning A and Serpell J (eds) *Animals and Human Society: Changing Perspectives* pp 81-105. Routledge: London, UK
- McCune S 1995 The impact of paternity and early socialization on the development of cats' behaviour to people and novel objects. *Applied Animal Behaviour Science* 45: 109-124
- Neville P 1990 *Do Cats Need Shrinks?* Sidgwick & Jackson: London, UK
- Neville P 1991 *Do Dogs Need Shrinks?* Sidgwick & Jackson: London, UK
- Noonan G J, Rand J S, Blackshaw J K and Priest J 1996 Tail docking in dogs: a sample of attitudes of veterinarians and dog breeders in Queensland. *Australian Veterinary Journal* 73: 86-88
- O'Farrell V 1987 Owner attitudes and dog behaviour problems. *Journal of Small Animal Practice* 28: 1037-1045
- O'Farrell V 1992 *Manual of Canine Behaviour, 2nd edition*. BSAVA Publications: Cheltenham, UK
- O'Farrell V 1995 Effects of owner personality and attitudes on dog behaviour. In: Serpell J A (ed) *The Domestic Dog: Its Evolution, Behaviour and Interactions with People* pp 153-158. Cambridge University Press: Cambridge, UK
- Olson P N, Moulton C, Nett T M and Salman M D 1991 Pet overpopulation: A challenge for companion animal veterinarians in the 1990s. *Journal of the American Veterinary Medical Association* 198: 1151-1152
- Patronek G J and Glickman L T 1994 Development of a model for estimating the size and dynamics of the pet dog population. *Anthrozoös* 7: 25-42
- Paul E S 1996 The representation of animals on children's television. *Anthrozoös* 9: 169-181
- Paul E S and Serpell J A 1993 Childhood pet keeping and humane attitudes in young adulthood. *Animal Welfare* 2: 321-337
- Pet Food Manufacturers' Association 1996 PFMA Profile 1996. PFMA: London, UK
- Pifer L, Shimizu K and Pifer R 1994 Public attitudes toward animal research: some international comparisons. *Society and Animals* 2: 95-113
- Podberscek A L 1994 Dog on a tightrope: the position of the dog in British Society as influenced by press reports on dog attacks (1988 to 1992). *Anthrozoös* 7: 232-241
- Podberscek A L and Serpell J A 1997 Environmental influences on the expression of aggressive behaviour in English Cocker Spaniels. *Applied Animal Behaviour Science* 52: 215-227
- Poresky R H, Hendrix C, Mosier J E and Samuelson M L 1988 Young children's companion animal bonding and adults' pet attitudes: a retrospective study. *Psychological Reports* 62: 419-425
- Reisner I R, Houpt K A, Hollis N E and Quimby F W 1994 Friendliness to humans and defensive aggression in cats: the influence of handling and paternity. *Physiology and Behavior* 55: 1119-1124
- Ritvo H 1988 *The Animal Estate: The English and Other Creatures in the Victorian Age*. Harvard University Press: Cambridge, MA, USA

- Rowan A N** 1992 Companion animal demographics and unwanted animals in the United States. *Anthrozoös* 5: 222-225
- Scott J P and Fuller J L** 1965 *Genetics and the Social Behavior of the Dog*. University of Chicago Press: Chicago, USA
- Serpell J A** 1981 Childhood pets and their influence on adults' attitudes. *Psychological Reports* 49: 651-654
- Serpell J** 1986 *In the Company of Animals*. Basil Blackwell: Oxford, UK
- Serpell J and Jagoe J A** 1995 Early experience and the development of behaviour. In: Serpell J A (ed) *The Domestic Dog: Its Evolution, Behaviour and Interactions with People* pp 79-102. Cambridge University Press: Cambridge, UK
- Stead A C** 1982 Euthanasia in the dog and cat. *Journal of Small Animal Practice* 23: 37-43
- Turner D C, Feaver J, Mendl M and Bateson P** 1986 Variations in domestic cat behaviour towards humans: a paternal effect. *Animal Behaviour* 34: 1890-1892
- van der Borg J A M, Netto W J and Planta, D J U** 1991 Behavioural testing of dogs in animal shelters to predict problem behaviour. *Applied Animal Behaviour Science* 15: 261-266
- Vockell E and Hodal F** 1980 Developing humane attitudes: what does research tell us? *Humane Education* 4: 19-21
- Voith V L, Wright J C and Danneman P J** 1992 Is there a relationship between canine behavior problems and spoiling activities, anthropomorphism, and obedience training? *Applied Animal Behaviour Science* 34: 263-272
- Wells D and Hepper P G** 1992 The behaviour of dogs in a rescue shelter. *Animal Welfare* 1: 171-186
- Wickens S M, Astell-Billings I, McPherson J A, Gibb R, Bradshaw J W S and McBride E A** 1995 The behavioural assessment of dogs in animal shelters: inter-observer reliability and data redundancy. In: Rutter S M, Rushen J, Randle H D and Eddison J C (eds) *Proceedings of the 29th International Congress of the International Society for Applied Ethology* pp 127-128. Universities Federation for Animal Welfare: Potters Bar, UK
- Willis M B** 1989 *Genetics of the Dog*. H F & G Witherby: London, UK
- Willis M B** 1995 Genetic aspects of dog behaviour with particular reference to working ability. In: Serpell J A (ed) *The Domestic Dog: Its Evolution, Behaviour and Interactions with People* pp 51-64. Cambridge University Press: Cambridge, UK