

Co-occurrence of Human Violence, Criminal Behaviour and Animal Abuse: Implications for  
Legalised Hunting Behaviour.

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In the last decade there has been an increasing awareness of the significant links between violence toward humans, animal cruelty, and criminal behaviours (e.g., Arluke, Levin, Luke, & Ascione, 1999; Ascione, 1998; Flynn, 2000a; 2000b; Gullone & Clarke, in press). Related to this, animal cruelty has been proposed to be a potential indicator of subsequent or simultaneous violent criminal behaviour. Prominent examples of this link in Australia are seen in anecdotal evidence of notorious violent adult offenders. For example, mass murderer Martin Bryant was known to RSPCA officers in Tasmania in relation to animal cruelty offences. Similarly, serial killer Ivan Milat was known for being cruel to animals prior to murdering seven victims in New South Wales. Concern has also increasingly been focused on the pain and suffering experienced by animal victims of abuse.

Furthermore, instances of animal cruelty are increasingly being seen as grounds for investigation into the welfare of children and their families (Dadds, Turner & McAloon, 2002). Researchers have attempted to develop an understanding of the underlying causes for animal cruelty behaviours in childhood and their potential contribution to the development of aggressive or violent tendencies into adulthood. Research has suggested that childhood animal cruelty may be a symptom of something in a child's life that requires clinical intervention (e.g. Gullone et al., 2004).

Ascione (1993) has defined animal abuse as "socially unacceptable behaviour that intentionally causes unnecessary pain, suffering, or distress to and/or death of an animal" (p.51). Similarly, Felthous and Kellert (1986) have defined cruelty to animals as a "pattern of deliberately, repeatedly, and unnecessarily hurting vertebrate animals in a manner likely to cause serious injury" (p. 57). Both definitions incorporate an element of intent to harm and Ascione's definition incorporates an element of "social acceptability". Further, as with child abuse, animal abuse can include physical abuse, sexual abuse, and neglect.

There have been several proposals put forth in an attempt to better explain and understand the link. In particular, an effort has been made to better understand the factors that underlie the abuse of animals. A significant amount of data, both anecdotal and empirical, show that animals are often killed or harmed to intimidate, frighten or control others including battered women or abused children (Arkow, 1996; Ascione, 2001; Ascione & Arkow, 1999; Boat, 1995). As reported by battered women themselves, in an effort to assert their control or continue their campaign of terror, perpetrators have stabbed, shot, hanged, and otherwise mutilated the family pets. In some cases, the animals disappear or die mysteriously.

Another proposed explanatory factor for animal abuse is an underdeveloped or compromised level of empathy since abusive behaviour by necessity requires a reduced capacity to empathise with a potential victim (human or animal) (Ascione, 1999). Such a relationship is further supported by the demonstrated relationship between *callousness* and empathy with high callousness and low empathy revealing low levels of concern for the welfare of other sentient beings both human and non-human (Lahey, Waldman, & McBurnett, 1999). Related to empathy development, Ascione and Arkow (1999) have suggested a possible association between witnessing a parent being cruel toward animals, and childhood animal cruelty. According to Giannopolous (1994), the child may become desensitised toward animal suffering as a consequence of witnessing the behaviour. Having vicariously acquired the behaviour through observation, there is an increased likelihood that the child will engage in the behaviour. This is particularly true if there is an associated belief on the part of the child that the behaviour will empower him/her through identification with a more powerful adult with whom there is an important emotional connection (e.g. parent).

By far the greatest number of studies looking at the co-occurrence of the links between abusive behaviours of human and non-human animals comes from the body of research examining the association between family violence and animal abuse. However, in recent

times, increased attention has been given to the association between criminal behaviours and animal abuse. Hunting behaviours have also begun to attract some research attention. This body of research will be reviewed below.

### **Family Violence and Animal Abuse**

One of the earliest studies examining the co-occurrence between family violence and animal abuse was a study conducted by Arkow (1994) in which 24% of 122 women seeking refuge from domestic violence and 11% of 1,175 women seeking restraining orders or support services reported observing animal cruelty by the perpetrator. In 1997, Ascione and others (1997) published a study reporting the findings of a U.S. national survey of shelters. One shelter from nearly every U.S. state was selected for participation. All shelter staff were surveyed about the coexistence of animal abuse and domestic violence and children's cruelty toward animals. The results showed that as many as 85% of staff who were interviewed reported that they were aware of incidents of pet abuse. A total of 63% of the staff also reported hearing children talk about animal abuse. Eighty-three percent of shelter workers answered 'yes' to the question "...have you observed the coexistence of domestic violence and pet abuse?"

In a subsequent study, 38 women who sought refuge from domestic violence were directly interviewed (Ascione, 1998). Of the 68% of women with pets, 71% reported that threats of harming, actual harming or killing of pets by the perpetrators had occurred. Also, approximately 30% of children exposed to violence were themselves reported to be abusive toward animals. Ascione also found that a significant proportion (18%) of women delayed seeking shelter for themselves and their children, for fear of their companion animal being harmed.

Quinlisk (1999) reported the findings of another survey conducted as part of a domestic violence intervention project. The study involved 72 female victims of domestic violence of whom 58 had pets. Of these women, 68% reported violence directed toward their companion animals. In other cases, women reported experiencing threats to kill or to give away their pets. In 88% of cases the abuse was committed in their presence and in 76% of cases, children had been witness to the abuse. An additional alarming finding was that 54% of child witnesses were reported to copy the behaviours they had observed. Of particular note is the fact that Quinlisk (1999) reported almost identical results for an additional survey involving 32 women.

In another similar investigation, Daniell (2001) reported the findings of a survey conducted by the Ontario Society for the Prevention of Cruelty to Animals (Ontario SPCA). A total of 130 women were surveyed, 80 of whom owned pets at the time of entering the women's refuge and a further 31 had owned a pet some time in the past 12 months. The results were highly consistent with previous studies. Of the 111 pet owning women, 44% stated that their partner had previously abused or killed one or more of their pets and 42% stated that their partner had threatened to hurt or kill one of their pets. Also, a high 43% of respondents indicated that concern over their pet's welfare had caused them not to leave their abusive situation sooner.

Flynn's (2000b) study replicated and extended upon previous research by asking four questions. These related to (i) the nature and extent of pet abuse suffered by physically abused women, (ii) the importance of the pets as sources of emotional support for the women, (iii) whether the women worried about their pet's welfare after seeking shelter, and (iv) whether their concern for the pet's welfare delayed their seeking refuge. One hundred and seven women from a South Carolina shelter were involved in the study of whom 43 had pets. Of the pet owners, 47% reported there had been threats to harm or actual harm directed at their pet(s)

by the perpetrator of the domestic violence. Regarding emotional importance, almost half (46%) of the women reported their pet to be a very important source of emotional support. Not surprisingly, almost as many (40%) reported being worried about their pet's safety and 19% of the women reported delaying seeking shelter.

In a more recently reported investigation, Ascione et al. (2005) included a comparison community sample. The study involved a convenience sample of 101 women recruited through five different domestic violence programmes. The community sample included 120 women. For this sample, a recruitment requirement included the criterion that the women did **not** self report experiencing intimate partner abuse. This study constitutes one of very few incorporating a comparison community sample of women. The findings included that shelter women were more likely to report that their partners had threatened to hurt or kill their pets (52.5%) and that their partners had actually hurt or killed their pet (54%). This compared with 12.5% and 5%, respectively in the community sample of women.

The shelter women's reports included multiple incidents of killing or hurting pets. This contrasted with the reports of community sample for whom incidents were typically isolated and were more likely to occur within the context of disciplining the animal for bad behaviour such as biting. The most horrific incidents of animal abuse were reported by the shelter women who reported, among other acts of violence, nailing the pet to the woman's bedroom door, drowning the pet, and poisoning the pet.

Overall, 22.8% of the shelter women reported that concern for the welfare of their pet had kept them from seeking refuge sooner. This percentage was markedly higher for those women whose pets had already been hurt (34.3%). There was also a difference between women who delayed leaving and had children (19.5%) and those without children (33.3%).

Ascione et al. (2005) also assessed the experiences and behaviours of children and found that over 61.5% of the shelter women reported that their children had witnessed pet

abuse. This contrasted with only 2.9% for the community sample. A total of 38 shelter group children were also directly interviewed. Nearly two-thirds of these children (61.5%) reported that they had witnessed pet abuse incidents as perpetrated by their father, stepfather, or women's boyfriend. As many as 51% of the children said that they had protected one of their pets to save it from being hurt.

In the only Australian investigation carried out to date to determine the extent of co-occurrence between animal abuse and human-directed violence, Gullone and colleagues (2004) surveyed 104 women recruited through family violence refuge or outreach services and a comparison community sample of 102 women from neighbourhood houses and community centres. The inclusion criterion for participating women was that they owned at least one pet during their current or most recent relationship. For the community sample, there was the additional criterion required that there be no current or past experience of family violence. The findings were highly comparable to those of past similar studies as reported above. Specifically, it was found that 46% of women in the family violence sample reported that their partner had threatened to hurt or kill their pet compared with 6% of women in the community sample. Similarly, a markedly larger percentage of family violence group women (53%) reported that their partner had hurt or killed their pet compared to 0% of women in the community sample. Out of the 104 family violence cases, 17.3% reported that their pet(s) had been killed.

A total of 34 women in the family violence sample were living in a refuge, crisis accommodation or transitional housing (as opposed to outreach services). Of these women, a total of 33% reported that they had delayed leaving up to 8 weeks. Also, consistent with past similar studies, Gullone et al. (2004) asked the women in the family violence sample about their children's experiences. With the comparison sample percentages given in parentheses, it was found that in 29% (1%) of cases, children were reported to witness threats of abuse and

29% (0%) were reported to witness actual abuse. A total of 19% (1%) of the women reported that their child had abused their pet. Further, a total of 5% (1%) of the children were reported to have threatened to hurt or kill their pet(s).

The outcomes of the research reviewed above leave little room for doubt that a relationship between intimate partner human violence and animal cruelty exists. At the very least, this research suggests that the detection of animal abuse should be of significant concern to professionals and researchers. The research outcomes also suggest that when children are found to be abusing animals, there is a significant probability that they have witnessed and/or directly experienced abuse themselves. Thus, children's abuse of animals should be taken very seriously as it may well be a marker of other sinister crimes. Also of importance are research outcomes suggesting that animal abuse is predictive of other types of criminal behaviours.

### **Criminal Behaviour and Animal Abuse**

Arluke and colleagues (1999) conducted an investigation into the relationship between animal abuse and other forms of anti-social behaviour including violence. For improved validity of results, they obtained their data from official records of criminality rather than through self-disclosure of criminals. They also included a community comparison group. Specifically, they identified people who had been prosecuted for at least one form of animal cruelty from the records of the Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA) between 1975 and 1986.

They defined cruelty as cases "where an animal has been intentionally harmed physically (e.g., beaten, stabbed, shot, hanged, drowned, stoned, burned, strangled, driven over, or thrown)." (p. 966). This resulted in a group of 153 participants of whom 146 were male. The sample had a mean age of 31 years, 58 percent of whom were younger than 21



years of age. The largest proportion of abused animals was dogs (69%) compared with cats (22%) and the remaining were birds, wildlife, horses or farm animals. The control group was constituted from individuals matched to the abuse group on gender, socioeconomic status, age, and street of residence in the same year as the cruelty incident. Thus, attempts were made to match the animal abusing group as closely as possible with the control group on socioeconomic status and related characteristics. The control group details were obtained from municipal voting lists. Following this, computerised criminal records were used to track criminal cases from the state's criminal justice records system. This was done for both the control and abuse group. Criminal offences were classified into five groups as violent, property-related, drug-related, public disorder, and other.

The results indicated that animal abusers were significantly more likely than control participants to be involved in some form of criminal behaviour, including violent offences. Specifically, 70% of those who abused animals also committed at least one other offence compared with 22% of the control group participants. The differences ranged from 11% for the control group and 44% for the abusive group on property-related crimes to 12% for the control group and 37% for the abusive group on public disorder related crimes. For violent crimes, the two groups differed substantially at 7% for the control and 37% for the abusive group.

A particularly compelling finding was that just one single known act of animal abuse was significantly predictive of increased participation in other criminal offences when compared to a matched sample of adults who did not abuse animals. Even more compelling was the finding that this predictive power was, in many cases, based on identified animal abuse of a far less torturous and sadistic nature than has been the case in past related studies (e.g., Kellert & Felthous, 1985).

The authors concluded that that animal abuse may provide an important marker for other antisocial behaviours. This conclusion is supported by the findings of a more recent investigation carried out by Gleyzer, Felthous, and Holzer (2002) in which 48 criminal defendants with a history of substantial animal cruelty were matched with a sample of defendants who did not have a history of animal cruelty in order to investigate whether a history of animal cruelty was associated with a diagnosis of Anti-social Personality Disorder (APD) in adulthood. The proposal was supported with the finding of a significant correlation between a history of cruelty to animals in childhood and a diagnosis of APD in adulthood. Specifically, a diagnosis of APD and also antisocial personality traits were significantly more frequent in the animal cruelty group.

On the basis of these research outcomes, it can be concluded that animal cruelty constitutes an important marker of antisocial or criminal behaviour. Therefore, it appears that the same underlying factors that predict or increase the likelihood an individual engaging in animal abuse, may also increase the likelihood that the same individual will engage in other types of criminal behaviour. Providing further support for this proposition are Australian Victoria Police data. These data are considered below.

### ***Criminal Offences and Animal Abuse Offences: Australian Data***

Data were obtained from the Statistical Services Division of Victoria Police for all recorded offences in Victoria, Australia for the years 1994 to 2001 (inclusive). Out of four categories of offence for all alleged offenders, the data clearly show that the largest proportion of offences was consistently that against property, ranging between 79.52% (number = 344,905) of total offences in 1998 and 80.85% (number = 354,785) in 1999. Over the eight year period, offences against property constituted an average of 80.8% of the total 3,364,078 crimes committed in Victoria. Drug offences consistently constituted the smallest proportion

and ranged between 2.84% (n = 12,838) in 2001 and 4.23% (n = 18,354) of total offences in 1998. Of note, offences against the person also constituted a relatively small proportion of the total number of crimes at an average of 7.71% of all crimes over the eight year period with the lowest percentage of 7.98 recorded in 2000 and the highest percentage of 8.01 recorded in 2001.

The equivalent statistics relating to criminal offences for alleged animal abuse offenders only, classified in the same way show some interesting trends. Specifically, for animal abuse offenders, the average percentage of offences committed against the person was found to be substantially higher compared to the percentage for all alleged offenders (25% compared to 7.98%). The category of offences against the person included such crimes as homicide, rape, assault, abduction/kidnap, and harassment. Importantly, these statistics are remarkably similar to those reported by Arluke et al., (1999) as described above.

When examining age and sex trends for alleged animal abuse offenders and animal abuse offences only, there was found to be a peak in frequency between the ages of 18 and 25 years for both males and females. Males were overrepresented across all age categories. Of the various categories of animal abuse, by far the most frequently occurring offence type was found to be “inflict physical pain/suffering”.

On the whole, the data for all alleged offenders and for animal abuse offenders only showed that there are clear sex and age differences in the frequency of criminal behaviours. Specifically, the data showed that people most at risk of offending are male and aged between 18 and 25 years. Also of particular importance are the data suggesting that people who abuse animals are more likely than alleged offenders who do not abuse animals to engage in offences classified as being those against the person. That this category of offences includes violent crimes such as homicide and rape further supports the claim made by other researchers than animal abuse is an important marker of violent criminal behaviour (Arluke et al., 1999;

Dadds, Turner, & McAloon, 2002; Felthous & Kellert, 1986; 1987). Further supporting evidence for this conclusion can be found in recent data collected through the New South Wales Police Service Forensic Services Group to investigate the links between animal cruelty and other criminal offences in an Australian context (Clarke, 2002).

***Animal Cruelty as a Predictor of Other Criminal Behaviours: Australian Data.***

As part of a larger study, a total of 200 participants was randomly selected from a New South Wales (NSW) Police database containing 947 individuals involved in animal cruelty incidents (Clarke, 2002; 2003). The sample included 38 female ( $M = 32.8$  years,  $SD = 12.6$  years) and 162 male ( $M = 28.4$  years,  $SD = 8.7$  years) participants. All participants were located using a NSW police service data collection system. This system allowed for searches to be conducted across all animal cruelty offenders who had come to police attention since 1994. Records for all individuals convicted of animal cruelty between 1994 and 2002 were obtained. The records of each offender, including all criminal charges and events noted on the system, were then examined individually and a cumulative total of historical criminal events was compiled.

The results indicated that offenders who reported incidents of cruelty to animals had also committed a number of additional offences. These offences were characterised by assaults, stealing, and driving offences. Out of the sample of 200, 61.5 percent had also committed an assault. Further, more than half of these individuals, all of whom had a history of animal abuse, also had convictions for driving offences, domestic violence and stealing. Other offences observed included drug and firearms offences, sexual assaults, malicious damage, assaulting police and street offences. It is noteworthy that as many as 17% of these offenders had also been sexually abused. In fact, animal abuse was a better predictor of sexual assault than previous convictions for homicide, arson or firearms offences.

The data also revealed that, domestic violence offences featured prominently in the criminal histories. Importantly, only 1% (n=2) of offenders exclusively had a conviction for animal cruelty. The more obvious pattern was one of many and varied criminal behaviours classified across the criminal behaviour categories. These data demonstrate that animal abuse is predictive of other criminal behaviours including violent crimes. These findings, therefore, indicate that identified animal cruelty needs to be given increased attention, both by law enforcement and service provision organisations, in efforts aimed at reducing or preventing criminal behaviours. Recognition of factors that may inadvertently be endorsing or aiding the maintenance of violent criminal and animal abuse behaviours is also important. Continued legalisation of recreational hunting may be one such factor.

### **Where Does Hunting Behaviour Fit in the Co-Occurrence Hypothesis?**

As noted above, animal cruelty can, in part, be explained by compromised empathy development. Low empathy levels constitute a central characteristic of Conduct Disorder and Anti-Social Personality Disorder. Given such findings, it is not unreasonable to argue that killing animals in the form of hunting for purely recreation purposes is a demonstration of compromised empathy since deriving enjoyment from a behaviour that causes suffering and harm must be devoid of compassion. It is also likely that children's witnessing of such behaviours by their significant others (e.g. parents, older siblings) is conveying a message that harming and killing sentient beings for pure sport is acceptable. Following from this, it is likely not a coincidence that hunting is performed predominantly by males who, as a group, have also been consistently demonstrated to have lower levels of empathy compared to females.

Despite the fact that hunting is a legal behaviour, in both the US and Australia, there has been a significant and steady decline in numbers of licensed shooters. In the U.S., in the

last quarter of a century, the number of adults holding paid hunting licenses has declined from 17.1 million in 1975 to 15.1 million. Support for hunting has also significantly declined (Irwin, 2001 cited in Flynn, 2002). A similar decline has occurred in Australia. For example, the number of licensed duck shooters in Victoria, Australia has declined from 95,000 in 1986 to 17,609 in 2003 (The Victorian Shooter Newsletter, December, 2004). In Australia, duck shooting, once commonly regarded a legitimate form of recreation, is now seen by the majority of the Australian population as outright animal cruelty. This has been most clearly demonstrated by animal rescue programs focusing on saving injured birds and by the continued campaigning against duck hunting by the Royal Society for the Prevention of Cruelty to Animals. That hunting is a behaviour engaged in by the minority of the Australian adult population is reflected in the numbers of license holders. As reported by the SSAS (2005), the proportion of license holders in Australia as a percentage of the adult population is 5.2%. Further, not all licensed gun owners actively engage in hunting. Thus, hunting is a behaviour representing a clear minority of the Australian adult population. The defensive position taken by the SSAS suggests that shooters themselves are aware of changing community attitudes and feel the need to justify and protect their position. For example, on their website (SSAS, 2005), Australian Bureau of Statistics data are selectively reported to convey the misleading message that, following the introduction of Australian legislation limiting the availability of firearms, crime has increased. In contrast, data reported by the Australian Institute of Criminology directly contradict such a message. Mouzos and Rushford (2003) provide data for the number of firearm-related deaths between 1991 and 2001. What is clearly evident is a marked and consistent decline in such deaths since the introduction of firearm control legislation in Australia in 1996. In 1991 there were 629 firearm related deaths compared to 333 in 2001, representing a 47 percent decrease over this period.

As noted by Flynn (2002), contrary to perceptions of shooters that hunting is a sport, many animal activists and feminists consider hunting to be another form of violence and male domination. Indeed anecdotal data suggest that there is a co-occurrence between domestic violence and hunting (Adams, 1995 cited in Flynn, 2002). Others have argued that legal violence (e.g. hunting) can generalise or “spill over” into illegal violence (e.g. domestic violence).

To systematically investigate the associations between violence, animal cruelty and hunting behaviours, Flynn (2002) obtained self-reports from a sample of 236 university undergraduate students regarding whether or not they had engaged in hunting during childhood or adolescence and asked about their involvement in violent behaviours toward humans and other animals. Additionally, Flynn examined whether hunting behaviour was predictive of lower levels of empathy.

Consistent with the trends reported above in the Victorian data, one of the main findings was a consistent gender difference with males far exceeding females on almost all cruelty and violence variables. For example, 45.7% of males in the sample reported that they had hunted at least once in their youth compared to only 9.5% of females. Males were also significantly more likely to engage in violent acts compared to females. Consistent with most literature on gender-related empathy differences, females scored significantly higher than males on empathy. Of most significance, those students who reported that they had hunted were approximately twice as likely to engage in violence toward animals as non-hunters. Hunters in Flynn’s sample were also more than twice as likely compared to non-hunters to report that they had damaged or destroyed someone else’s property during their high school years. Although these associations were only significant when hunting was defined as “killing an animal”, just “going hunting” was found to be a significant marker of destructive behaviour during adolescence among the male participants in the sample.

Flynn concluded that his study findings provide evidence of a relationship between hunting and illegal aggression or violence and killing stray or wild animals and damaging the property of humans. Also, gender was found to be an important variable with males being markedly more likely to engage in hunting, animal abuse, property damage, and fighting with others. As would be expected, males reported significantly lower levels of empathy compared to females. Related to this, it can be argued that the endorsement of hunting through its legal status provides societal endorsement to engage in acts of cruelty and violence. Such endorsement is likely to manifest in a circular manner both by being acted upon by those with compromised levels of empathy and by increasing individuals' levels of desensitisation to others' suffering through such legally endorsed acts of cruelty.

### ***Kangaroo Shooting in Australia***

Definitions of animal cruelty vary but there is an implicit assumption, consistent with Ascione's (1993) definition, as given above (i.e. "socially unacceptable behaviour that intentionally causes unnecessary pain, suffering, or distress to and/or death of an animal"; p.51), that if behaviour is legally endorsed, monitored and controlled, then it is acceptable. Kangaroo shooting in Australia is one such "industry". As summarized by the Australian Government's Department of the Environment and Heritage (2002), on mainland Australia there are five species of kangaroo and wallaby that can be legally killed by commercial shooters for commercial use. These species and others can also be legally shot by non-commercial shooters. Annually, large numbers of kangaroos are shot. For example, in 1999 the recorded number was 2,654,496 and in 2000, the number was 2,747,491. This is a conservative number since there is no accurate record of kangaroos shot by non-commercial shooters, recreational shooters, or kangaroos shot illegally. An estimated 95,686 kangaroos



were killed in NSW, Queensland and South Australia for damage mitigation or recreation (Australian Government, Dept of Environment and Heritage; RSPCA report, 2002).

Under the Code of Practice for the Humane Shooting of Kangaroos, in most Australian states (Australian Government, Dept of Environment and Heritage, 2002), there are training requirements that commercial shooters (in some states this also applies to recreational shooters) must undertake. There are also tagging system requirements for the tracing of carcasses. The Code also requires that kangaroos are shot in the head to ensure a quick death. An additional cruelty concern relates to the fate of pouch young and young at foot. In this regard, the Code requires that the pouch young of a shot female are killed by decapitation, a heavy blow to the skull or by shooting.

According to a report prepared by the RSPCA (See Australian Government, Dept of Environment and Heritage, 2002) on the extent of compliance with the requirements of the Code of Practice, Western Australia differs most from the other states through its Restricted Open Season for the shooting of both red and Western grey kangaroos. This enables landholders and others to shoot kangaroos without a license. Although a condition of this Restricted Open Season is that all shooting be carried out in accordance with the Code of Practice, monitoring of such is for all practical purposes impossible. Indeed, the RSPCA (2002) report states that, despite concerns being expressed by representatives from NSW and Queensland, “none of the states could provide information about [the] extent of illegal kangaroo harvesting, or compliance with the Code during such activities.” (Section 2: p. 11 of 15; Australian Government, Dept of Environment and Heritage, 2002).

Additional concerns regarding compliance with the Code summarized in the RSPCA report included the following:

- Reports that damage mitigation licences have led to the selling of tags by the holder of the licence resulting in ‘shooting parties’ by people who then shoot the kangaroos as a source of recreation.
- ‘Kangaroo drives’ resulting in kangaroos being injured with knives, snares, bow and arrows, dogs and iron bars.
- Kangaroo carcasses at processors being found to have pellets and projectiles under the skin or in the muscle.
- Reports of farmers who deliberately shoot kangaroos and wallabies in the body so that they travel off their property to die and thereby decrease the chances of their detection and prosecution.
- Reports that for young who were highly mobile, given the time required to capture them, it was more likely that they would be left alone, and would thereby die by natural causes (e.g. dehydration, starvation).
- For larger young, it was considered by some shooters that they were too big to club to death and it would be too dangerous to shoot them at close range resulting in the method of ‘disposal’ being to simply release them into the bush.

Whilst it was made clear in the RSPCA report that the major welfare concerns regarding kangaroo shooting come from the non-commercial sector given the greater difficulty of monitoring adherence to the Code for this sector, it remains the case that serious welfare concerns cannot be ruled out for the commercial sector. Given the large numbers of kangaroos involved, even 95% adherence to the Code leaves very large numbers of kangaroos not being shot ‘humanely’ (in the head). As stated in the RSPCA report, statistics regarding adherence to the requirement that kangaroos only be shot in the head are limited in that the data available are those from processors and many processors

will not accept kangaroos unless they are 'head-shot'. Secondly, evidence suggests that a regular occurrence during a shoot is that many kangaroos are injured but not retrieved by shooters. Therefore, the number of kangaroos that die a slow death remains unknown. Further, the argument that a head shot is humane and results in a quick death can also be questioned given the small brain size of the kangaroo relative to its skull size. There remains a significant chance that even head shot kangaroos do not die quickly.

And then there is the major issue of the fate of joeys whose mothers are shot. The line so conveniently drawn between the commercial and non-commercial sectors with regard to welfare concerns disappears when considering the young kangaroos whose mothers are killed since the fate of young kangaroos is something the Code has clearly failed to adequately address. Indeed, in their report RSPCA recommend that in order to avoid the cruel fate faced by pouch young or young at foot, female kangaroos should not be shot at all. Given the evidence, the kangaroo 'industry' is clearly an inherently cruel one and there remain many unresolved issues. Among such issues are the unknown numbers of young kangaroos that die a slow and painful death from dehydration, starvation or predation. There are also unknown numbers of kangaroos who die slow and painful deaths from being wounded by gunshot but not killed. In addition, there are unknown numbers of kangaroos who are hunted down and likely killed inhumanely for recreational purposes as is supported legally particularly in Western Australia. Other issues have relevance beyond individual animals. For example, if the largest kangaroo in the group is systematically selected for shooting, what are the sustainability consequences? Despite these significant issues, the kangaroo industry remains a legal and legitimate source of individual employment and revenue.

## Conclusions

There is increasing evidence that a significant co-occurrence between animal cruelty and human violence exists. It has also been reported that deriving pleasure from killing or causing suffering to other sentient beings is predictive of low empathy levels, as has been shown to be the case in hunting behaviour. It is also true that whilst hunting was once considered to be an acceptable recreational activity by a significant proportion of the population, such a position is now held by a small minority of the Australian population as has been seen through the significant decline in numbers of adults who are licensed gun owners. That only 5.2% of the adult Australian population hold such a license clearly shows this. Given that such a small proportion of the population choose to hunt or to kill animals either for an income or for “fun”, is it appropriate for it to be considered a “socially acceptable” behaviour. As reported by Flynn (2002), a similar trend has been observed in the United States. Relevant questions that need to be asked include; who are the individuals attracted to industries such as the kangaroo industry or hunting activities such a water bird shooting? Are societies that legally endorse hunting as a source of recreation, unintentionally promoting “criminal” behaviours through the continued legal status of such activities? Equally, where is the logic or sense in a society criminalising only certain very specifically defined behaviours as constituting cruelty toward animals yet legalising others? Given that engaging in cruel or abusive behaviours toward animals (and that the witnessing of such behaviours by children in particular) is not only associated with engaging in those behaviours toward humans but also with desensitization to the suffering of others generally (including that of humans), it would seem that the only logical, and indeed responsible, position for a society to take would be one that eschews all behaviours deliberately intended to bring about the suffering and/or death of sentient beings.

## References

- Arkow, (1994). Animal abuse and domestic violence: Intake statistics tell a sad story. *Latham Letter, XV (2)*, 17.
- Arkow, P. (1996). The relationships between animal abuse and other forms of family violence. *Family Violence and Sexual Assault Bulletin, 12*, 29-34.
- Arluke, A., Levin, J., Luke, C., & Ascione, F. (1999). The relationship of animal abuse to violence and other forms of antisocial behavior. *Journal of Interpersonal Violence, 14*, 963-975.
- Ascione, F.R. (1993). Children who are cruel to animals: A review of research and implications for developmental psychopathology, *Anthrozoos, 4*, 226-247.
- Ascione, F.R. (1998). Battered women's reports of their partners' and their children's cruelty to animals. *Journal of Emotional Abuse, 1*, 119-133.
- Ascione, F.R. (1999). The abuse of animals and human interpersonal violence: Making the connection. In Ascione, F.R., & Arkow, P. (1999). (Eds), *Child abuse, domestic violence, and animal abuse: Linking the circles of compassion for prevention and intervention*. (pp. 50-61), Indiana: Purdue University Press.
- Ascione, F.R. (2001). Animal abuse and youth violence. *Juvenile Justice Bulletin, September*.
- Ascione, F.R., & Arkow, P. (1999). Preface in F.R. Ascione & P. Arkow (Eds)., *Child abuse, domestic violence, and animal abuse*. (pp. xv-xx). West Lafayette, IN, Purdue University Press.
- Ascione, F.R., Weber, C.V., & Wood, D.S. (1997). The abuse of animals and domestic violence: A national survey of shelters for women who are battered. *Society and Animals, 5*, 205-218.

Ascione, F.R., Weber, C.V., Duluth, M.N., Heath, J., Maruyama, M., & Kayashi, K. (2005). Battered pets and domestic violence: Animal abuse reported by women experiencing intimate violence and by non-abused women. *Paper submitted for publication.*

Australian Government, Dept of Environment and Heritage (2002). Kangaroo Shooting Code Compliance: A Survey of the Extent of Compliance with the Requirements of the Code of Practice for the Humane Shooting of Kangaroos. <http://www.deh.gov.au/biodiversity/trade-use/publications/kangaroo-report>. Retrieved 14/01/2005.

Boat, B.W. (1995). The relationship between violence to children and violence to animals: An ignored link? *Journal of Interpersonal Violence, 10*, 228-235.

Clarke, J.P. (2002). *New South Wales Police animal cruelty research project*. Sydney, Australia: Unpublished report New South Wales Police Service.

Clarke, J.P. (2003). *International review of offender profiling: Investigative considerations*. Sydney, Australia: Unpublished report New South Wales Police Service.

Dadds, M.R., Turner, C., & McAloon, J. (2002). Developmental links between cruelty to animals and human violence. *Australian and New Zealand Journal of Criminology, 35*, 363-382.

Daniell, C. (2001). Ontario SPCA's women's shelter survey shows staggering results. *The Latham Letter, Spring*, 16-17.

Felthous, A.R., & Kellert, S.R. (1986). Violence against animals and people: Is aggression against living creatures generalised? *Bulletin of the American Academy of Psychiatry and Law, 14*, 55-69.

Felthous, A.R., & Kellert, S.R. (1987). Childhood cruelty to animals and later aggression against people: A review. *American Journal of Psychiatry, 144*, 710-717.

- Flynn, C.P. (2000a). Why family professionals can no longer ignore violence toward animals. *Family Relations*, 49, 87-95.
- Flynn, C.P. (2000b). Women's best friend: Pet abuse and the role of companion animals in the lives of battered women. *Violence Against Women*, 6, 162-177.
- Flynn, C.P. (2002). Hunting and illegal violence against humans and other animals: Exploring the relationship. *Society and Animals*, 10, 137-154.
- Giannopolous, S. (1994). *Psychopathology and serial murder*. Boca Raton: CRC Press.
- Gleyzer, R., Felthous, A.R., & Holzer, C.E. (2002). Animal cruelty and psychiatric disorders. *Journal of the American Academy of Psychiatry and Law*, 30, 257-265.
- Gullone, E., & Clarke, J.P. (in press). Animal Abuse, Cruelty, and Welfare: An Australian Perspective. In F.R. Ascione (Ed.), *The International Handbook of Theory and Research on Animal Abuse and Cruelty*. Purdue University Press: Purdue.
- Gullone, E., Johnson, J., & Volant, A. (2004). The link between Animal Abuse and Family Violence: A Victoria-wide study. *Australian Veterinary Association, Welfare Conference*. Canberra.
- Kellert, S.R., & Felthous, A.R. (1985). Childhood cruelty toward animals among criminals and non-criminals. *Human Relations*, 38, 1113-1129.
- Lahey, B.B., Waldman, I.D., & McBurnett, K. (1999). Annotation: The development of antisocial behavior: An integrative causal model. *Journal of Child Psychology and Psychiatry*, 40, 669-682.
- Mouzos, J., & Rushford, C. (2003). Firearm related deaths in Australia, 1991-2001. *Australian Institute of Criminology: Trends & Issues*. No. 269. <http://www.aix.gov.au> Retrieved 10/01/2005.

Quinslick, J.A. (1999). Animal abuse and family violence. In F.R. Ascione & P. Arkow (Eds), *Child abuse, domestic violence, and animal abuse: Linking the circles of compassion for prevention and intervention*. (pp. 168-175). Indiana: Purdue University Press.

Sporting Shooters' Association of Australia – SSAS (2005).  
<http://www/ssaa.org.au/graph> Retrieved 10/01/005.

The Victorian Shooter Newsletter (December, 2004). Sporting Shooters' Association of Australia – SSAS. <http://www/ssaa.org.au> Retrieved 10/01/005.