

His Bark is Worse than His Bite: Perceptions and Rationalization of Canine Aggressive Behavior

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Qualitative methods are increasingly used to investigate the complexities of the dog-human relationship. In order to inform a larger study of human dog interaction, a focus group study was carried out to address the question ‘How is aggressive behavior in dogs perceived and rationalized by people who have experience of dog behavior?’ Six focus groups, including three ‘non-professional’ groups (two groups of dog owners and one group of amateur trainers) and three ‘professional’ groups (a behaviorist group, veterinary group and academic group) were carried out, involving participants who were recruited opportunistically. The focus group transcripts were analyzed using thematic analysis. Findings indicated that participants who do not work with dogs in a professional capacity are largely defensive of dogs when discussing aggressive behavior. However, these participants also discussed factors that make a dog ‘risky’ and how responsible owners manage that risk and the characteristics of ‘dangerous dogs’. For the professional groups, aggressive behavior in dogs presents a barrier to everyday work. They considered working with the owners of dogs showing aggressive behavior and battling anthropogenic stereotypes and misconceptions to be part of the professional challenge. Professionals also contributed views on the nature of ‘dangerous dogs’ and demonstrated awareness of how perceptions could be distorted by the media and propagation of stereotypes. This research highlights the variability of perceptions about canine aggressive behavior. Findings can inform the critical interpretation of quantitative results, and offer a foundation for quantitative study of human directed aggressive behavior in dogs.

Keywords: dog aggression, perceptions, thematic analysis, dog bites, aggressive behavior

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Although the causes of human directed aggressive behavior in dogs have been extensively researched within the positivist paradigm (Newman, 2012), studies often focus on dog signalment (such as breed and neuter status) and there is little consensus as to which factors link to aggressive behavior. For example, Guy et al. (2001) found no association between breed and aggressive behavior; whereas Gershman, Sacks, and Wright (1994) found that dog bites were more likely to be from German Shepherd Dogs and Chow Chows than from other breeds. Both case control studies had small sample sizes, limiting the validity of their results.

In contrast, markedly few studies focus on owner and environmental factors. One such study by Chen et al. (2000) found that postal workers working in rural areas of

Taiwan were more likely to be bitten than postal workers operating in urban areas of Taiwan. However, absence of confounding factors could not be guaranteed in this study. For example, dogs in rural areas could have increased levels of access to post boxes and gardens than dogs in urban locations. Furthermore, these results were conducted in a specific area, so could not be generalized to other geographical areas. Another study conducted by Guy et al. (2001) found an association between husbandry factors and human directed aggressive behavior. However, this association could not be conclusively identified as causal, rather than consequential, and so these factors were not included in the subsequent multivariable model. Although the perceptions of dog bite victims have been explored (Westgarth &

Watkins, 2015), and Sanders (1990) investigates dog owners' "excusing tactics" for their dogs' misbehavior, the current authors are not aware of any research that specifically investigates how owners and people who work with dogs perceive, rationalize, and respond to aggressive behavior in dogs. These details may influence the presentation, prognosis, and treatment of canine aggressive behavior. Therefore, this research seeks to investigate the human experience of aggressive behavior in dogs, within the interpretivism paradigm.

Qualitative methods can fill in the gaps that quantitative methods leave when investigating human attitudes and experiences (Braun & Clarke, 2013). In addition to laying a foundation for quantitative research via informing survey content, data collection, and hypothesis generation, qualitative methods have value in their own right as descriptive tools of human subjective experience (Gelo, Braakmann & Benetka, 2008). This is particularly relevant when studying human-dog interactions, where human perceptions need to be fully investigated in order to understand the complexities of this particular interspecies relationship.

Qualitative methods are increasingly popular in anthrozoological research, particularly pertaining to companion dogs. Qualitative studies often focus on positive aspects of dog ownership, such as experiences of assistance dog owners/users (Carlisle, 2014; Kwong & Bartholomew, 2011; Wigget-Barnard & Steel, 2008), attachment to pet dogs (Lem, Coe, Haley, Stone & O'Grady, 2013; Skjørestad & Johannessen, 2013; Woodward & Bauer, 2007), and effect of dog ownership on physical activity (Peel, Douglas, Parry, & Lawton, 2010; Higgins, Temple, Murray, Kumm, & Rhodes, 2013). Far less attention has been given to negative aspects of human-dog interactions, such as human directed aggressive behavior.

Additionally, qualitative studies within the field of human-animal interactions are

often unclear in terms of epistemological perspective taken and rationale for the method of analysis used. Results are often presented numerically, for example, stating the proportion of participants that hold a certain view. As qualitative research has the potential to obtain rich data and detail that is not accessible using quantitative methods, anything less than a thorough and detailed qualitative analysis is insufficient to describe qualitative data.

The research question "How is aggressive behavior in dogs perceived and rationalized by people who have experience of dog behavior?" is approached in this study from an exploratory standpoint. Qualitative methods are used to achieve an unlimited and inclusive depiction of human viewpoints. Different participant groups were selected to investigate the breadth of perceptions surrounding aggressive behavior in dogs. Groups ranged from dog owners and trainers, to qualified veterinary surgeons and behaviorists, to academics familiar with the research literature. In this way the views of people from a variety of experiential and educational backgrounds could be explored.

Methods

Ethical Approval

The research was granted ethical approval by the University of Lincoln's School of Psychology Research Ethics Committee (SOPREC), prior to data collection.

Participants and Recruitment

Three professional groups and three non-professional groups were targeted to investigate perceptions of canine aggressive behavior. Recruitment methods were selected on the basis of appropriateness to the targeted groups (for detail, see Table 1). Opportunity snowball sampling was used, which is appropriate for

Table 1: Details of the Six Focus Groups Involved in this Study

Focus Group	Participants	Location	Recruitment
Dog Owning Group 1 (n=5)	Dog owners or previous dog owners	University of Lincoln, Lincoln, UK	Advertisements in local shops
Dog Owning Group 2 (n=7)	Dog owners or previous dog owners	A private residence - Oldham, UK	Advertisements in local shops
Amateur Training Group (n=10)	Dog owners that are members of a dog training club	A dog training club - Oldham, UK	Advertisement on training club notice board
Academic Group (n=10)	Researchers in the field of animal behavior and welfare with an interest in dog behavior	An informal conference, Peak District, UK	Word of mouth at conference
Behavior Counsellor Group (n=5)	Animal behavior counsellors registered as members of a professional behavior counsellor register	A conference, nr Birmingham, UK	Advertisement by email to list of behavior counsellors
Veterinary Surgeons Group (n=6)	Veterinary surgeons who work at least in part with companion animals	University of Lincoln, Lincoln, UK	Advertisement in regional veterinary group newsletter

this qualitative investigation, in line with the comments by Gelo et al. (2008) on idiographic methodology. Potential participants registered their interest via email. The only criterion for the non-professional participants was experience of owning a dog. For the professional groups, participants were current members of the respective professions who had an interest in canine aggressive behavior (evidenced by their volunteering to participate without incentive). Dog owning experience was not a selection criterion for these groups.

The study was planned to investigate the range of views held by people with experience of owning or working with dogs. Twenty-two participants were involved in the non-professional focus groups ($\mu=7$) and twenty one participants took part in the professional groups ($\mu=7$).

Data Collection

Data collection was designed to encourage open discussion by using small focus groups (5-10 participants). The groups were described to participants as

hour-long, audio recorded discussions of dog behavior, with an emphasis on aggressive behavior. Focus groups were conducted between February and June 2014, at locations convenient and specific to the focus group participants. Written consent was obtained from all participants prior to conduction of focus groups.

A semi-structured interview guide comprising open ended questions was used and was the same for all focus groups in terms of content, but worded differently for the professional groups to reflect the language typically used in these groups and to invite experiences gained within professional contexts. The flexibility afforded by the semi-structured format allowed relevant, unanticipated topics to be explored.

Each group was facilitated by one researcher who coded and analyzed the transcripts. This researcher, in the five years prior to data collection, had experience of owning dogs, been a member of a dog training club, had experience in veterinary and behavioral consultation contexts, and is part of the academic

community that concerns itself with the investigation of dog behavior. She was therefore well equipped to facilitate all of these groups. The single researcher approach, combined with an iterative analysis, maximized familiarity with the data. This method safeguards against the lost-in-translation effect that can occur if different researchers are responsible for different parts of data processing. Limitations of this approach, including data bias, were addressed at the analysis stage.

Recordings were transcribed into verbatim transcripts by the researcher and a professional transcriber. Transcripts were read whilst listening to the recording to check for accuracy. Transcripts were anonymized through the use of pseudonyms selected by the researcher.

Analysis

The method of analysis applied is similar to the content-driven ‘exploratory thematic analysis’ method described by Guest, MacQueen, and Namey (2012). This method occupies an epistemological position between inductive and deductive perspectives, affording sufficient flexibility for an exploratory study with a variable participant pool.

Analysis of the non-professional groups was completely separate to analysis of the professional groups in order to uncover any differences between these groups that may be reflective of dog behavior experience derived from different experiential pathways, or perspectives influenced by education and involvement in professional discourse on the subject of aggressive behavior. The two analyses were carried out sequentially, using the same methods and epistemological perspective. Data were approached from a critical realist perspective (Guest et al., 2012) throughout, meaning that the relatively artificial setting of a focus group was taken into account when analyzing the data, and that quotes from participants were largely analyzed at the semantic level, rather than looking for

“hidden meaning” by assigning latent codes.

Immediately following each focus group, a memoir was recorded to highlight problems or productive discussion points. Only transcript data pertaining to dogs or aggressive behavior were analyzed. The transcripts were orthographic and coded systematically for semantic content, with few latent codes being assigned. Each coherent viewpoint was coded by assigning a previously used code that sufficiently represented the meaning of the quote. If there was not a suitable pre-existing code, a new code was created. Coding was done with the aim of collapsing the data whilst minimizing loss of meaning or richness.

Each code was checked to ensure quotes were sufficiently similar to warrant belonging to the same code. In the event that a quote was incongruent to its code, it was reassigned to a different or new code. Codes were subsequently grouped into subthemes of repeated meaning. Coding was checked by other researchers (who were familiar with thematic analysis, but not involved in animal behavior research) to ensure that codes assigned were appropriate to the data and not overly biased by the main researcher’s educational and experiential background in canine behavior, and that themes adequately reflected the recorded and transcribed discussion content.

Finally, subthemes were organized into broader themes. The themes were then discussed between researchers to ensure that they represented the underlying data appropriately. Example quotes were selected to illustrate each theme. Where quotes are used in this paper, they have been modified to improve readability by removing repeated words and non-verbal utterances. Pseudonyms have been used throughout the discussion to preserve participants’ anonymity.

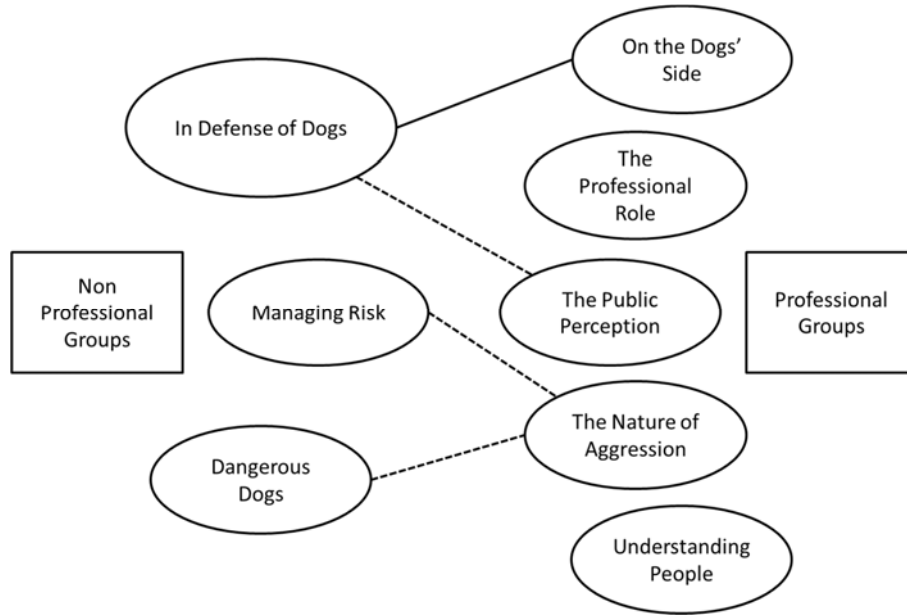


Figure 1: Thematic Map. This figure represents the relationship between themes from different groups. Solid lines indicate a partial overlap between themes, whereas dashed lines represent a conceptual link between themes.

Results

1. The Non-Professional Focus Group Discussions

Two of the dog owning groups had professional identities that were entirely separate from their status as dog owners. Members of the training group, most of whom were retired, had social lives largely centered on their status as dog owners, as reflected in the detailed anecdotes and strong views that were expressed by this

group. Three themes broadly represent the data collected from the non-professional groups. “In Defense of Dogs” reflects rationalization of aggressive behavior displayed by participants’ dogs and emphasizes the benefits of dog ownership. “Managing Risk” concerns what makes one dog more of a threat than another, and how participants (as responsible owners) curtail any risk presented by their dogs. Lastly, “Dangerous Dogs” comprises views of dogs that pose an unpredictable threat and includes references to the evolutionary

Table 2: Themes and their Composite Subthemes from the Non-Professional Groups

In Defense of Dogs	Managing Risk	Dangerous Dogs
Justifications	Tough Love	The Aggression Image
Dog Superiority Over People	Common Sense Prophylaxis	Bites Break Trust
Stereotypes are Unwarranted	Aggression is a National Issue	The Wolf in the Home
Communication Breakdown	Bite Types	Unpredictable Dogs are Dangerous
Dog as Family Member	Relative Size of Dog to Victim	
Dog as Protector	Breed Specific Aggression	
Dog as Best Friend		
Dog Owning Perks		
Aggression Permitted		
Not a Serious Bite		

ancestry of the domestic dog as a causal factor in the ‘dangerous’ nature of some dogs.

1.1 In Defense of Dogs

This theme was well represented in all non-professional focus groups. Participants argued the innocence of dogs without prompt, as if anticipating the views of wider society. The behavior of aggressive dogs was excused in the subtheme “Justifications.” For example, Barry justifies his dog’s behavior:

He has made, on one occasion, an aggressive move towards a young girl and again I think it’s the fact that she eyeballed him ... they class that as a threatening behavior don’t they?
(Barry; Training Group)

Barry excuses his dog’s behavior, whilst simultaneously avoiding personal accountability. He is vague about the dog’s actions and suggests that the incident was not part of his dog’s normal behavioral repertoire. Additionally, he presents a cause for the behavior, even in absence of any obvious action by the girl. Finally, he seeks agreement from the rest of the group that his dog’s behavior was warranted, which perhaps suggests that he isn’t entirely comfortable with relaying this particular anecdote, involving a young girl as the target and his own dog as the perpetrator. This excerpt and others within the subtheme “Justifications” are reminiscent of findings described by Sanders (1990) including the observation that dog owners use a set of excusing tactics to navigate social situations in which their dogs misbehave.

Excusing the dog extends to instances of aggressive behavior directed at participants. Under the subtheme “Not a Serious Bite,” Andrew suggests that his dog:

Sort of like goes back to how he used to be when I was a k- when he was

little with me but I, I wouldn’t really classify it as a bite though it’s more just a sort of thing he does, it’s not breaking the skin or whatever
(Andrew; Dog Owning Group 1)

Additionally, some participants were clear that unless it was particularly severe, they wouldn’t euthanize a dog for biting:

I don’t think it’s fair to have the dog put down just for a single incident I mean if it’s repeated offences maybe
(Andrew; Dog Owning Group 1).

This draws into question the owner’s interpretation of an “offence,” which may not be shared by others. In the subtheme “Dog as a Family Member,” a less flexible view was presented, related to the sense of responsibility participants felt towards their dog(s):

As I’m concerned if she bit someone, she’s a member of my pack, member of my family I’d do everything to protect her. So you know I- if someone was out to have her put down ‘cos she’d bit someone I’d put ‘em in me van and make ‘em disappear meself I’d go and hide ‘em
(Stanley; Training Group)

Stanley clearly feels protective of his dogs, and would go to any means to defend them like any other family member. The use of the word “pack” to describe the collective of himself and his dog(s) is typical of dog owners that subscribe to Dominance Theory (a controversial theory, originally based on interspecies extrapolation of behavioral observations of artificial wolf packs, which first featured in a study by Schenkel in 1947).

The theme “In Defense of Dogs” includes the subtheme “Aggression Permitted,” which reflects participants’ suggestions that aggression can be a desirable behavior, such as when guarding the house against intruders. Colin used to

work in the medical profession, and recalled:

I actually got income tax relief for him and I claimed him as a guard dog because I've had to – I kept drugs in the house for emergencies so he was useful then (Colin; Dog Owing Group 2)

This point was made in reference to a dog that Colin's partner had previously described as "very aggressive" and "usually angry with people if they came to the house" (Eve; Dog Owing Group 2). She added that they had never taken this dog to training, mentioning that trained dogs "of course become more docile [laughter] so I don't think it does make them very good guard dogs." The other members of Dog Owing Group 2 did not seem shocked by this intention to retain aggressive traits in a dog. This was perhaps due to the context, the dog was owned by retired health professionals who were using the dog as a guard dog in a rural location. The admission might have been less acceptable from someone from a different background.

The subtheme "Dog Superiority Over People" includes views that create a difference in moral standing through positioning the person as stupid or deserving to be bitten. June recalled:

I've had one who bit the vet ... But it was his own fault he was a family friend this vet and my bitch had just had some pups that morning ... well he comes into the house marches straight towards the box where she was with her new pups and that bitch jumped out of that box and flew at him and got him on the backside! He dropped his bag and did a runner! [laughter] (June; Training Group)

The structure of this anecdote is key to the presentation of the story. June first summarizes, followed immediately by positioning her dog above the human

character (the vet). She then further orientates the listeners and goes into detail about the offending action, which is clearly the vet "marching straight" up to the dog, and not the biting that occurs subsequently. The comedic ending serves to mock the offending human and downplay the seriousness of the bite, further justifying the actions of the dog.

Subthemes contributing to "In Defense of Dogs" render dogs blameless in an aggressive incident, and often refer to the participants' own dogs, or dogs they have previously owned. Owned dogs were generally not presented as a serious risk – participants referred to bites from their own dogs as bites or "little nip[s]," but never described their own dogs' actions as "mauling" (Colin; Dog Owing Group 2) or "savage" (Eamon; Dog Owing Group 1) – terms that were used to describe hypothetical biting incidents or incidents presented in the media.

1.2 Managing Risk

"Managing Risk" captured material that alluded to responsible ownership, how people should behave around dogs and what should be done about the problem on a national scale. In essence, the theme relates to what can practically be done to prevent dog bites. It also addresses different severities of aggressive behavior and the relation of breed and size to risk. The first contributing subtheme is "Common Sense Prophylaxis" and relates to how bite prevention can be achieved on an individual scale, without too much effort.

He was doing what he was thinking was right and he was protecting us so we had, on our front gate we had a sign saying 'be careful there's a dog in the house' (Andrea; Dog Owing Group 1)

Andrea excuses her dog whilst recognizing that he was unlikely to stop because of his motivation. This relates to the previous discussion about responsible ownership and what owners could do to

prevent their dog from biting. Andrea concluded that any bite that occurred in spite of these measures “wasn’t [the dog’s] fault, it wasn’t our fault it was probably, it was the victim’s fault.” She implies that responsible ownership is necessary, but can only go so far to prevent bites when faced with other peoples’ ignorance. It can also be interpreted as a means of protecting the owner from blame, so long as they warn the potential victim. This attitude is not supported by the 2014 amendment of the UK Dangerous Dogs Act 1991, which specifies that owners allowing their dog to be “dangerously out of control” in any place, including private property, can be prosecuted.

Another subtheme in “Managing Risk” is called “Tough Love” and denotes participants’ disdain for owners who spoil their dogs, which is construed as a contributing factor to aggressive behavior. It includes statements promoting low or non-tolerance policies in relation to aggressive behavior:

Obviously there’d be circumstances but if the circumstances warrant [euthanasia] is the first thing I would do and I’ve believed it all my life is when a dog’s bitten it’s tasted blood and it’ll do it again regardless (Jen; Training Group)

The reference to “circumstances” follows on from earlier agreement within the group that aggression is justified in some situations. At first glance this seems to directly oppose Stanley’s protective assertion in the theme “Dog as Family Member” (see above), but Stanley’s contribution was made in the context of a discussion about dogs that are justified in their defensive action and wrongly blamed for the incident.

Here Jen refers to bites that aren’t excusable by qualifying her statement with “if the circumstances warrant.” She suggests that she could separate her emotions from the knowledge that the dog

could bite again. Additionally, participants expressed their belief in government responsibility and the power of education in the subtheme “Aggression is a National Issue.” Barry felt that early education could have a positive effect:

We’ve got is it 5 million dogs in the UK something like that 6 million why then is there not some sort of education for children at an early age about how to live with a dog or how to understand one because surely if we started with children at say six or seven years of age when they can really take information in that’s the time when you could really do something about no- not only protecting the child but stopping the occurrence of the child making the wrong move towards the dog (Barry; Training Group)

Barry rationalizes this solution in detail, and broadens the issue beyond protecting the safety of the child to safeguarding the welfare of dogs.

In all three non-professional focus groups, the notion of breed and its relation to aggressive behavior were thoroughly discussed. The subtheme “Breed Specific Aggression” encapsulates views about certain breeds. Colin says:

I mean Pit bulls were bred specifically for fighting weren’t they ... So I don’t see any reason why they shouldn’t be banned. They should be wiped off the face of the earth actually (Colin; Dog Owning Group 2)

Ideas expressed within this subtheme are in stark contrast to data included in “In Defense of Dogs,” illustrating that beliefs about the relationship between aggressivity and breed are variable. “Breed Specific Aggression” was a subtheme derived from only a few participants in the non-professional groups, which may reflect the

findings that people who have more experience with dogs and dog ownership are less likely to subscribe to breed stereotypes (Clarke, Cooper & Mills, 2013). This is an extension of the contact hypothesis from social anthropology and indicates similarities between breed stereotyping and racial stereotyping (Clarke et al., 2013). It is possible that breed stereotypes are more likely to exist for banned breeds, not only due to their representation in the media and law, but because people typically have no contact with these breeds.

The final two subthemes, “Relative Size of Dog to Victim” and “Bite Types,” focus on the physical aspects of dog bites. Lynn says that “A little terrier can’t shake even a baby. It can bite but a smaller dog in aggression is not as dangerous as a bigger dog” (Lynn; Training Group), inferring that it isn’t just the size of the dog but the size of its target that equates to a difference in risk. Participants suggest that different kinds of bites result in different injuries, as put rather explicitly by Eamon: “We’ve been talking about biting but if they if they rip some little toddler in half” (Eamon; Dog Owing Group 1). Eamon is implying that the repercussions of a more severe category of bite should reflect the damage done. However, concessions were made for owned dogs, for which bites are only promoted from nips if they “break the skin” (Hatty; Dog Owing Group 2) or ‘draw blood’ (Eamon; Dog Owing Group 1).

In summary, the theme “Managing Risk” illustrates views that vary from and sometimes directly oppose the views expressed “In Defense of Dogs.” However, the two coexist in all groups because participants create lines between acceptable or excusable behavior, and behavior that is dangerous or unjustified. Data belonging to “Managing Risk” allude to behavior on the wrong side of the line, and is key to understanding how dog owners rationalize aggressive behavior in their own dogs and simultaneously denounce aggressive actions of other dogs.

1.3 Dangerous Dogs

The final theme from the non-professional groups is “Dangerous Dogs,” which has a strong sense of otherness to the data it represents. Fear of the unknown was a core element in this theme. The subtheme “The Aggression Image” illustrates some participants’ wariness of stereotypical status dogs and owners:

Colin: *And they’ve got big metal studded collars...*

Hatty: *Yes and they just they just look horrible do you know what I mean (Colin/Hatty; Dog Owing Group 2)*

It is in keeping with Dog Owing Group 2’s view of dogs as lovable pets that participants express fear and unfamiliarity in relation to the stereotypical image of a status dog.

The subtheme “The Wolf in the Home” alludes to domestic dogs’ wild ancestry, and how this ancestry manifests in the behavior of pet dogs. Dog Owing Group 2 discussed how this could play a role in dog bite fatalities:

Eve: *Who was – somebody was telling me last week that this high pitched noise reminds them of an animal – it was on the radio wasn’t it, radio five, it sounds like an animal that’s wounded*

Sue: *In distress yes ...*

Eve: *And the dog’s instinct is to finish it off (Eve/Sue; Dog Owing Group 2)*

This discussion followed a previous discussion about dog bites towards babies, and the high pitched noise that Eve refers to is a baby’s cry. In this instance, she is unwittingly talking about predation, which has a completely separate neurobiological basis to aggression (Gadbois, 2014). The use of the word “instinct” has wild connotations, and suggests that wolf traits surface in the behavior of pet dogs. As wolves have, through western literature and

symbolism, historically represented danger to humans (Lynn, 2010), this statement creates a conflict between the expected behavior of the pet dog and its treacherous relapse to the wolf within. This perception, for some, shatters the anthropomorphic image of the pet dog. Where participants volunteered this view, data were grouped under the subtheme “Bites Break Trust.” Hannah postulates:

If that was [my dog that] bit me, I would think that it's a complete change of her personality and I would have to think seriously about not keeping her. (Hannah; Dog Owning Group 2)

This describes how devastating human directed dog aggression could be to owners. Perhaps for the majority of owners, human directed bites are perceived as betraying the owners' trust in their dog's character and status as a family member.

The subtheme “Unpredictable Dogs are Dangerous” reflects participants' views of aggression as a feared, alien concept. When participants couldn't identify a cause for aggressive behavior, the dog responsible was described as “dangerous” rather than simply “aggressive.” The common use of the term “dangerous” in the context of aggressive behavior in dogs could be maintained by, or even attributable to, the title of the dog control law in the UK – the “Dangerous Dogs Act 1991.” When asked if they thought there was any difference between aggressive dogs and dangerous dogs, participants volunteered the following:

Eamon: I think yeah cos like I say there's a reason behind the aggression whereas a dangerous dog if it just bites out of y'know 'I'm not-

Olivia: Without any warning

*Eamon: Yeah without any warning
(Eamon/Olivia; Dog Owning Group 1)*

Through creating this distinction between “dangerous” and “aggressive,” dog owners in the non-professional groups appear to rationalize or condone the behavior of some dogs whilst condemning the unpredictable, and therefore more “dangerous” behavior of other dogs. This subtheme suggests affective, rather than cognitive, risk evaluation by participants. A component of affective risk evaluation is what Loewenstein, Weber, Hsee, and Welch (2001) describe as the dread dimension “defined by the perceived lack of control, feelings of dread, and perceived catastrophic potential.” In implicating that the dog's wild nature sometimes takes over, participants express their feelings that dangerous dogs are uncontrolled, and therefore the perception of risk associated with these dogs is much higher.

In summary, the theme “Dangerous Dogs” is a representation of participants' feelings about dogs that they perceive to be truly or inherently dangerous. Examples used to discuss “Dangerous Dogs” were hypothetical or based on news media accounts, and participants never referred to dogs they had owned as “dangerous.” Discussions surrounding “dangerous” dogs may be influenced by unconscious uptake of media stereotypes (Orritt & Harper, 2015). Participants acknowledge that an injurious bite can break the bond of trust between an owner and dog, and refer to dogs that act this way as “dangerous.” This is in contrast to professional participants, who presented a less emotive picture of aggressive behavior.

Table 3: Themes and their Composite Subthemes from the Professional Groups

The Professional Role	The Public Perception	Understanding People	On the Dogs' Side	The Nature of Aggression
A Difficult Job	On a Wider Scale	Owner's Input	Unfair on Dogs	Warning Signs
Treatment of Aggression	Media Representation	Consideration for Owners	Size Shouldn't Matter	Basis for Aggression
When Lines are Crossed	The Stereotype	Aggression Affects People	Owners are the Problem	Dog Risk Factors
Talking about Aggression	Aggression Misconceptions		Children are the Problem	Preventing Aggression
			Aggression Permitted	Aggression Development Nature of Dangerous Dogs

2. The Professional Focus Group Discussions

The professional groups comprised three different types of professionals with expertise in dog behavior – behaviorists, veterinarians, and academics. The Behaviorist and Veterinary Groups were comprised of relatively homogenous peer samples in terms of background and experience. The Academic Group had more diversity and included people with veterinary undergraduate degrees, researchers and lecturers in animal behavior, and doctoral students. It was noticeable that discussion in this group differed markedly from the Behaviorist and Veterinary Groups, where shared experiences and identity were central to discussion. For the veterinarians, aggressive behavior is encountered regularly in their working life and presents an obstacle to their work. For behaviorists, aggressive behavior is often the main focus of their work, and for academics, it is an issue that they may be called to have an opinion upon, but may not be central to their day to day activities.

Discussion in the professional groups led to themes specific to the challenges of the professional role, such as “Understanding People” and “The Professional Role.” The discussions also stemmed from their extensive education and experience with dogs and their owners,

leading to the creation of themes such as “On the Dogs’ Side,” “The Nature of Aggression,” and “The Public Perception.”

2.1 The Professional Role

Most professional participants described aggressive behavior in dogs based on their experiences at work. This was exemplified by the Academic Group, where some participants were not acquainted, so views were preceded by statements such as “I’m a vet and-“ (Cath; Academic Group) or “When I used to work in a kennels-“ (Lynn; Academic Group). “The Professional Role” highlights the difficulties associated with certain occupations, particularly the roles of behaviorist and veterinary surgeon, in the subtheme “A Difficult Job.” These difficulties included working simultaneously with people and dogs and the weight of responsibility associated with being regarded as a dog expert. Fiona said:

Yes and I think we, particularly people around this table probably, put more responsibility than most people because we are supposed to pick up on behavior signs perhaps better than other people and some people much more than others... It's always our responsibility if you don't know dog behavior to the highest possible standard of what you're

expected to know. (Fiona; Academic Group)

This excerpt conveys the pressure to live up to societal, and perhaps peer and personal, expectations of being an expert and communicating expert knowledge to others. The subtheme “Talking About Aggression” highlighted communication as a valuable skill to achieve effective management of aggressive behavior:

And I quite like it – trying to almost encourage disagreements between, you know, like a couple because one goes ‘oh yes he’s always’ and one’s going ‘oh no I’ve never seen him do that’ so again you’re getting information on like consistency and how they’re communicating and how they’re working (Sandra; Behaviorist Group)

This quote is particularly interesting, as it describes a method of extracting an accurate and detailed behavior history. Sandra also alludes to the pride and satisfaction she feels in successfully navigating the challenges specific to her role.

Although it became apparent that a lot of the data from the professional focus groups were based on perspectives anchored in the disciplines of the participants, “The Professional Role” theme is concerned with material directly related to the difficulties and practicalities of working in a role with exposure to aggressive behavior in dogs. Other composite subthemes include “When Lines are Crossed,” which pertains to the professional’s responsibility upon encountering dogs that pose a serious threat to people, and “Treatment of Aggression” in which risk management strategies were discussed. Participants agreed that their jobs were made more difficult by the prevalence of misconceptions and stereotypes, illustrated in “The Public Perception.”

2.2 The Public Perception

This theme captures how participants imagine the views of society in relation to aggressive behavior in dogs, including how these views are influenced and the damage that misconceptions can cause.

The subthemes “Media Representation” and “The Stereotype” are linked in topic, with the former being held accountable for the latter. Lynn says:

In the news stories that come out there’s – all the onus is on that dog and that dog is evil and terrible, maybe if they had an extra paragraph that said ‘this dog is also kept in the house fourteen hours a day with no company. It’s been taught to do this this and this’ and then everyone who reads those news stories goes ‘that dog is dangerous, oh but there’s a connection here, these dogs that have been dangerous are also [kept like] this’ (Lynn; Academic Group)

Lynn alludes to the media’s accountability for distorting the public image of dogs. She suggests that the media could minimize the damage by presenting dog bite stories more accurately, or with a more balanced viewpoint. Reporting guidelines are not available from a central source in the UK, but some organizations produce their own, such as the Samaritans guidelines for reporting suicide to avoid “copycat suicides” (Samaritans, n.d.). Currently, no guidelines are available for dog bite fatality reporting in the UK, and sensationalism surrounding these events is rife in newspaper articles, particularly from tabloid publications (Orritt & Harper, 2015).

“Aggression Misconceptions,” a subtheme that was connected to frustration in a lot of participants, covered the perceived tendency of the general public to subscribe to theories that the professional participants disagreed with. Dominance Theory is regularly discussed in dog behavior circles, (Bradshaw, Blackwell, &

Casey, 2009; Schilder, Vinke, & Van der Borg, 2014), but was surprisingly sparse in its representation in the professional groups' discussions. This was perhaps because participants had discussed this theory in other fora, leaving little more to be said within the focus groups. When it was mentioned, however, participants' feelings towards the propagation of dominance theory were clear:

Cath: *It's amazing as well how many people have got this whole dominance thing into their heads*
 Zoe: *Yes it's so damaging*
 Cath: *And it's impossible to get it out*
 (Cath/Zoe; Academic Group)

This excerpt suggests that the professional participants consider certain training methods that are centered around dominance and aversive techniques to be omnipresent in the dog owning community, particularly when supported by celebrity dog trainers such as Caesar Milan, who is referred to with exasperation as “a ((pause)) certain person” (Sandra; Behaviorist Group). Sandra avoids slander, cementing her identity as a professional whilst effectively communicating the identity of the subject to her peers.

Another subtheme in “The Public Perception” was entitled “On a Wider Scale” and covered data relating to dog aggression as a public health issue. Participants agreed that legislation was not effective. One of the criticisms was that “There’s no way you can enforce [the UK Dangerous Dogs Act 1991]” (Eve; Academic Group) to which Cath added “I think you’re better off to kind of get TOWIE to treat their dogs properly.¹” (Cath; Academic Group). This interaction illustrates that those involved in behavior research are aware that the behavior of people towards dogs is more likely to be influenced by popular media than it is to be shaped by legislation.

“The Public Perception” reflects participants’ dissatisfaction with the efficiency of science communication. The predominant view being that political, media, and public groups are not up to date with the current science of dog behavior and therefore are less likely to be able to prevent aggressive behavior whether on an individual or national scale. However, little evidence is available from the data to suggest that professional participants take any personal or group responsibility for the issue. A further interpretation is that the public, media, and political spheres are willfully ignorant in this subject area. One exception is their own clients, who tended to be viewed sympathetically. This is described in the following theme “Understanding People.”

2.3 Understanding People

The majority of professional participants worked with the public. The “Understanding People” theme encapsulates empathetic feeling towards clients or members of the public who are affected by canine aggressive behavior.

Included in “Understanding People” is the subtheme “Aggression Affects People,” which indicated participants’ understanding for dog owners and others affected by canine aggressive behavior. The following excerpt illustrates Sandra’s projection of how a client feels when they are listened to without judgment:

The first consult is usually about three hours and at the end of it every time I go ‘Are you OK?’ and every time they go ‘Yes I feel so much better already’ because it’s the first time they’ve been able to talk about it without anybody sitting there going ‘Oh well, you know, you shouldn’t have done that and you shouldn’t have done that and that’s wrong’
 (Sandra; Behaviorist Group)

¹ TOWIE is an acronym for ‘The Only Way Is Essex’, a scripted reality television program in the UK

One participant observed that owners of aggressive dogs “get a lot of pressure from complete strangers” and could benefit from “coaching for the human” (Jean; Behaviorist Group). It seemed that behaviorists were more aware of (and able to attend to) clients’ emotional needs than other groups. This is because of the nature of their work, which is often termed “behavioral counselling,” and involves in-depth discussion with pet owners. In contrast, vets expressed their dissatisfaction with being unable to support clients in this way “because as vets you’re so limited in a ten minute consult unless you’ve blocked off some kind of epic amount of time” (Tori; Veterinary Group).

Additionally, participants discussed topics that were captured by the subtheme “Consideration for Owners.” This included discussion of the family circumstances in which owners find themselves. Tori shared an anecdote:

She’d had a terrier, it had been a bit snappy, she’d done a lot with it and then her six year old son went and sat in the dog’s bed. And he didn’t know the dog’s ball was hidden under the blanket and the terrier latched on to his face and we put the dog to sleep the same day. She said ‘I know I could work with it but I will never like – like that dog has bitten my child and that – it has to go’ (Tori; Veterinary Group)

She preceded this story with the admission “I know it’s rough for the dog but,” which shows that although neither Tori, nor the client, appeared to blame the dog, she empathized with the owner’s decision to have the dog euthanized because she understood how the owner would feel towards the dog after her child had been bitten. She also showed understanding that, for the owner, the dog was just one part of a busy family life. This excerpt also supports the subtheme “Owner’s Input,” as Tori uses the plural

personal pronoun “we.” Tori performs the euthanasia, so her word choice indicates acknowledgement of the owner’s involvement in making the ultimate decision.

Overall, “Understanding People” illustrates the rational and human side of the professional participants. Although there was often a qualifier excusing dogs for their behavior, participants showed understanding of the owners’ emotional burden when a pet behaves aggressively. “Understanding People” contrasts with the following theme “On the Dogs’ Side,” in which professional participants express their frustration with the perceived shortcomings of the general public.

2.4 On the Dogs’ Side

This theme has strong links to “In Defense of Dogs” from the non-professional focus groups. However, the tone of this theme was markedly less defensive and more considered, hence the difference in title. To illustrate this difference, consider the following two statements. Sally, from a non-professional focus group, states “I am fed up of the dog taking the flak for human error” (Sally; Training Group), whereas Karen summarizes the problem with markedly less emotional involvement: “Poor understanding of the owner as to the needs of the dog” (Karen; Veterinary Group).

Although “On the Dogs’ Side” was arguably less biased than the corresponding themes from the non-professional groups, there was still a clear sense of blame that is situated away from the dog. Two contributing subthemes are “Owners are the Problem” and “Children are the Problem.” Both place the blame with the people associated with the biting dog. For example, participants suggested a tendency for children to provoke dogs:

He comes and picks her up and drops her and stuff like that and she bares her teeth at him and it’s like they, they, they get really angry about it!

It's like, well, you've let your child pick my dog up, drop her on the floor, pull her tail, poke her, what do you expect her to do? She's not going to just sit there and take it (Tina; Academic Group)

Here Tina weaves the responsibility of the parent into her argument, who refuses to accept the child's (or their own) accountability for the dog's behavior. She implies that the dog has a right to defend itself against torment and is very tolerant (the story lists the child's offences and describes the lowest level of aggression that was likely to be noticed, baring teeth, therefore allowing the anecdote to function without implicating the dog). Tina's repetition of the word 'they' eludes to her sense of injustice and anger on the dogs behalf.

Participants also discussed the lack of action from owners, particularly in terms of trying to rectify the behavior:

And it's their decision at the end of the day. I mean, you can give them the best behavior modification program on the planet but if they're not willing to do it then there's nothing you can do about it and you do, you get the spectrum. You get the owner who will absolutely pull out all the stops, who are usually the busiest people on the planet and will work really, really hard and then you get the other owner, who doesn't really do a lot and can't be bothered but wants the Lassie pill to fix it (Sandra; Behaviorist Group)

Prior to this quote, Sandra's had explained the phrase "the Lassie pill" in response to contributions about owners wanting a behaviorist to "click their fingers" and "come in and sort my dog out" (Kim; Behaviorist Group). Sandra states that a behaviorist that she knows "calls it the Lassie pill, you know 'I've run out of Lassie pills'" (Sandra; Behaviorist Group)

in reference to the perfectly behaved rough collie that has featured in popular media with some regularity since 1943. Both adults and children were held responsible by professional participants for aggressive behavior in dogs, one actively, albeit naively, and the other through neglect, laziness or ignorance.

The "On the Dogs' Side" theme also captures the injustice felt by participants when dogs are blamed as a knee jerk reaction ("Unfair on Dogs"), the perceived prejudice against larger dogs ("Size Shouldn't Matter"), and the appropriateness of aggressive behavior in certain situations ("Aggression Permitted"). In summary, "On the Dogs' Side" illustrates participants' views that dogs get a raw deal in the hands of their, often less than adequate, owners. Participants may feel a duty to be the pet dogs' voice, perhaps because they consider themselves more knowledgeable in terms of the nature of aggression.

2.5 The Nature of Aggression

This theme captures views that were based on the participants' professional knowledge and education, or on relevant literature. It covers the causes and development of aggression, what makes a dog "dangerous" and the individual and complex nature of each case.

One of the subthemes in "The Nature of Aggression" was "Warning Signs," in reference to behavior that can be predictive of bites. The consensus was that these signs are subtle and often overlooked. Ned explained:

And I think a lot of it is about – it's the individual's experience of reading dogs' body language in general as well as that individual, because they don't all stand their growling with their teeth. They – there's so many subtle signs that some people will pick up on and other people don't and if you're complacent and you miss that, you've

been warned by the dog in the dog's world (Ned; Veterinary Group)

Ned articulated how the dog and human individuality contributes to a relationship that can be prone to miscommunication, leading to aggression because the human has not read the "Warning Signs." This view is supported by the literature, particularly in reference to children misinterpreting dogs' facial expressions (Meints, Racca and Hickey, 2010). Ned also suggests that the human has responsibility for the miscommunication.

The subtheme "Basis for Aggression" parallels non-professional participants' assertions that there is always a reason for aggressive behavior. The motivations identified by the professional participants ranged from defense, motivated by fear or anxiety, i.e. "behaviors that are designed to make another person or animal back off" (Sara; Academic Group) to aggressive behavior being "pain related" (Tina; Academic Group). Participants thought that motivation is important to understanding aggressive behavior and that it influences how problem behavior can be resolved:

Yes, I mean, I think I agree to be honest the whole thing - it's less about what the problem is and more about why the dog's doing it in the first place because it doesn't matter whether the dog's, you know, going around attacking black Labradors or whether he's going around attacking the postman. That's irrelevant you've got to find out why the dog's doing what it is and only once you've got the 'why' can you actually work on the resolution (Pam; Behaviorist Group)

Other contributions to "The Nature of Aggression" were more straightforward, such as identifying anatomical differences between breeds that influenced risk in the subtheme "Dog Risk Factors":

Mia: There are like phenotypic traits that lead to being better at the attack process and not better at being aggressive but obviously there are certain things that make a dog more dangerous how are they're having the jaw-

Zoe: You mean like staffies that have got strong jaws

Mia: Yes

Cath: Or those Maloccluded little pugs that [Zoe] was talking about earlier, they don't have very good teeth they're not going to be able to [bite] (Mia/Zoe/Cath; Academic Group)

This exchange shows participants' awareness of the varying levels of threat that different breeds pose *should* they bite. Here, participants are suggesting that some dogs have a greater ability to inflict damage; elsewhere participants have defended the "traditionally scary" dogs, suggesting that they are no more likely to bite than friendlier looking dogs. Although the distinction is not made explicit, it is clear that participants are not saying that certain breeds are more likely to bite.

Although it was noted that incorrigible dogs are rare – "there's very few dogs that are just down right nasty I think I've met about three" (Tori; Veterinary Group) - participants delineated aggressive dogs from dangerous dogs on account of the unpredictable, uncontrolled, and unstoppable behavior shown in a range of contexts by dogs that they consider to be dangerous. This topic of discussion is represented by the subtheme "Nature of Dangerous Dogs," which reinforces a perception that a few dogs are more than just aggressive, but present a serious threat. Karen reported:

I've had clients say because the dog didn't growl or anything like that they've sort of said, you know, that that then wasn't aggressive and I say to them they're kind of the worst ones

that they're sat there happy as Larry and then suddenly gone for you, whereas if they'd pulled you through the door growling barking you kind of – it is a different sort of form of aggression (Karen; Veterinary Group)

Two connected subthemes were “Preventing Aggression” and “Aggression Development.” Participants hinted at life stages during which effective interventions could be made prophylactically or propensity to be aggressive could be exacerbated. During discussion of the causes of aggressive behavior, Steve said:

And not exposing their dog to enough different stimuli when they're young as well. Just general – not just socialization generally, getting them used to different sounds, different noises, different environments and things like that to keep – people just spend the time with them in the house and that's it (Steve; Veterinary Group)

Steve's input indicates that in his experience, better socialized dogs are less likely to develop fear associated aggressive behavior, a sentiment echoed in the Academic and Behaviorist Groups.

Discussion

The themes arising from all of the focus groups (see Figure 1) help to address the question “How is aggressive behavior in dogs perceived and rationalized by people who have experience of dog behavior?” The extensive variety of participant backgrounds in this study offers insight into how perceptions of human directed aggressive behavior develop and are maintained.

Overall, and as might be expected, the participants were “pro-dog,” as illustrated by the overlap in the themes “In Defense of Dogs” and “On the Dogs' Side.” This

extended in numerous cases to the blame being positioned away from the dog, and typically upon the victim. This suggests the presence of a cognitive distortion held by some owners of biting dogs, which raises concerns for the accuracy of owner self-report when gathering data on biting incidents. Additionally, it may be the case that owners who wrongly blame the victim are less willing to address the problem, as is the case for “batterers” responsible for domestic violence (Henning & Holdford, 2006).

Both non-professional and professional groups considered the media responsible for perpetuating unhelpful stereotypes, evidenced in the link between subthemes within “In Defense of Dogs” and “The Public Perception.” Additionally, views explored by non-professional participants in “Managing Risks” and “Dangerous Dogs” linked to subthemes in the professional theme “The Nature of Aggression,” indicating that participants from all groups were aware of the issue and actively discussed it.

Experience is important in shaping these perceptions and professional groups expressed much more variety and detail in their consideration of the topic. The overwhelming view from professional participants was that aggressive behavior is a complex and multifaceted phenomenon that is often elicited and aggravated by humans (although these mistakes could be understood), and that aggressive behavior presents a challenge to the work of veterinarians and behaviorists. In contrast, non-professional participants seemed to have a much simpler conception of aggressive behavior and risk.

In terms of rationalizing aggressive behavior, both non-professional and professional groups were clear about where the line should be drawn between justifiable aggressive behavior in some dogs and inexcusable and inherent aggression in other, dangerous dogs. Dog owners typically justified behavior to the point of condoning it when they believed the victim

to be at fault. The dog was portrayed as acting defensively in most anecdotes (particularly if the dog was their own). Professionals were seemingly more reluctant to condone aggressive behavior, yet still emphasized that human directed aggressive behavior is generally motivated by fear or pain, and so, ultimately, not the dog's fault. Professional groups also differed from non-professional groups in that they explored how aggressive behavior affected their daily roles, both in terms of practical management and dealing with owners of dogs that behave aggressively. However, there was no evidence from the material collected to suggest that professional participants accepted responsibility for the control of aggressive behavior or to implement strategies to curtail the risk to society outside treating their own clients.

In keeping with qualitative study and the aims of this investigation, the perceptions of people with direct and sustained experience of dogs were investigated. The views of non-owners are equally as important in considering how to develop strategies to reduce dog bite incidence, and warrant a separate qualitative investigation.

The decision to use opportunity snowball sampling may have meant that focus group members were less likely to want to provide alternative views to their peers. However, the sense of familiarity and safety provided by this method of recruitment was a methodological strength, as the topic of canine aggressive behavior is

an emotive one and could evoke feelings of unease for participants. Findings presented in this paper raise the question of how owner attitudes, experience, and behavioral education affect perceived dog bite risk. Ascertaining perceptions of canine aggressive behavior is instrumental in the treatment of individual cases, but also in the design and implementation of national dog bite prevention strategies, particularly those that are based on education. The appreciation of varying professional and non-professional perceptions afforded by this research will be useful when considering the views of parties involved in legal proceedings, as an identical incident could be construed in significantly different ways, dependent on the context and perspectives of the witnesses.

The research can also inform questionnaire-based study design to minimize misunderstanding by participants. For example, it is clear that many different definitions of "dog bite" are used, and that dog owners may be likely to portray their pet favorably when completing surveys, even if they have displayed human directed aggressive behavior in the past. Inclusion of owner factors in future investigations will help to determine relative risk, and ultimately inform preventative strategies needed to reliably reduce dog bite risk.

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