FIT FOR ADOPTION: AN OVERVIEW OF AGGRESSIVE BEHAVIOUR AND ITS IMPLICATIONS FOR SHELTERS: TWO CASE STUDIES

Thesis

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Preface

In 1994, following my undergraduate degree in English and Psychology, I completed a Postgraduate Certificate in Education. I taught English in secondary schools, going on to lead a large department. In 2003, I was appointed as a local government consultant where I worked alongside secondary and special schools to improve standards in English and explore how students could learn more effectively. I completed a Postgraduate Certificate in Process Consultancy in 2006, helping me work with schools to lead change under the Every Child Matters initiative. Becoming self-employed in 2008, I worked in English assessment before moving to France in 2010. In 2013, I started to volunteer at a local animal shelter, and I was elected as a trustee in June 2015. With a background in learning and skills acquisition, I found many comparisons with the classroom within a shelter: the shining stars, the recalcitrant learners, and those driven to destructive or violent behaviour through boredom, frustration and a lack of guidance or prior learning. Where Every Child Matters in the classroom, I truly believe that Every Dog Matters in the shelter. Their failings are our failings. It is, as it was then, those at risk of being left behind who pose the biggest challenges.

This thesis is dedicated to the hardworking staff and volunteer force at the Refuge de l’Angoumois who fight for every dog and for every cat. Their skill, commitment, passion and enthusiasm are a daily inspiration. In particular, the leadership and guidance of Sophie-Claire Barrière, the president, and Nadine Boissout, the shelter manager, mean that the shelter is just that: a place of safety and protection.

Abstract

Although fearfulness is the most commonly reported reason for returns to shelters, aggression poses significant ethical and operational problems that can lead to a lengthier stay in a shelter for dogs as well as leading to an increased risk of euthanasia. It's a “damned if you do, damned if you don’t” situation for shelters who are judged for high euthanasia figures or for placing certain dogs into the community. There are few ethical dilemmas more difficult to resolve than the placement and rehoming of dogs who have presented historically with aggression, especially for shelters who are not crippled by overpopulation of their facilities. With many countries faced with overpopulated pounds, and with rescue associations and shelters facing the requirement to destroy healthy animals to make space for new arrivals, it may seem like a distant dream to be in a shelter where conversations over the prospects for particular dogs is the major issue.

Globally, a large number of dogs are euthanised every year if they present with aggressive behaviours, whether the behaviours are appropriate or not, in shelters, in homes or on the streets. For shelters, whether this happens as a result of behavioural evaluations using a range of current assessment protocols, or it happens on an ad hoc basis, many rescue facilities face ethical, operational and financial pressures that lead them to euthanise shelter dogs rather than rehome them. Whilst national euthanasia figures remain unavailable, or do not specify the number of dogs euthanised for behavioural reasons, even shelters with an excellent adoption rate face cases where animals present on entry as being too dangerous to rehome. Many good shelters can say exactly, however, how many dogs are euthanised yearly and for what reason. In that way, they are ideal environments for studies about behaviour modification programmes and how these can reduce euthanasia rates without causing public health issues.
Balancing the needs of the animal, as well as ethical values about animal welfare and animal protection alongside the need for public safety and accountability can be difficult for many shelters. This is further complicated by the weight of often contradictory scientific literature as well as highly polemical discussion in social media.

In the present case studies, I aim to explore some of the issues that agencies face when assessing and modifying aggression in a shelter setting, before considering what shelters can do to evaluate and support dogs who present with undesirable behaviour in the shelter, or have presented historically with behaviours as noted in owner-reported surrender interviews. The case studies meet with legal regulations concerning aggressive dogs, and focus on my approach in a shelter in France.

It is recommended that shelters see aggression as behaviour rather than a trait or temperament. Shelters can observe behaviours and then use these to form an appropriate behaviour modification programme, using evaluations formatively rather than summatively in order to create a behaviour modification plan for individual dogs. Evaluations and observations should function as the first step of a behaviour plan, rather than the final nail in a coffin. Behaviour modification plans that are adaptive and personalised to the needs of the specific dog can be used to create adoption profiles, find the right home for the dog and, if necessary, continue post-adoption and help to bridge the issues involved in the transition from shelter life to home life. In this way, shelters can minimise risks to public safety whilst upholding their core values about the protection of the animals in their care.
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Introduction

Although studies suggest that fear-based problems are a significant factor for returns to shelters (Wells & Hepper, 2000; Normando et al., 2015), aggression can pose a more complex concern for owners and can be a significant factor in reasons for a dog to be initially surrendered to a shelter (Salman et al. 2000). For many, aggressive behaviour in canines is the “most common and most serious” behavioural problem (Borchelt, 1983). The weight of literature, often contradictory in nature (National Canine Research Council, 2017) can make it hard for shelters to know what help them and what will hinder them in their mission to rehome as many dogs as possible, especially if the shelter faces pressures over population.

Canine aggression presents many issues for the community as well as difficulties for shelters. Where local or national legislation exists, as it does in France, shelters may find themselves obliged legally to destroy animals presenting with elevated risk of future aggressive behaviour despite having the resources and capacity to work with such dogs. For a summary of the laws in France regarding dogs who have bitten, please see Appendix 2. In France, in locations where legislation does not prevent the rehoming of animals judged to present such a risk, the shelter then faces further mitigating circumstances that make adoption potentially difficult.

Essentially, shelters are asked to balance ethical issues about the protection of animal life against issues about animal welfare or quality of life, and consider these against the ethics of placing a dog with a history of aggressive behavioural patterns into the community. It is often a utilitarian approach of weighing up the safety of the many against an individual animal’s right to live or weighing up a potential stressful long kennel stay against the potential for rehoming.
There are further considerations. While any dog may present with post-adoption aggression which had not been identified in the shelter given the reliability of shelter assessment being often worse than “flipping a coin” (Patronek and Bradley, 2016), placing dogs into the community who have presented with aggression historically could also mean the shelter is then held liable for the dog’s future actions, or that the shelter faces a difficult ‘trial by media’ in which their work can be questioned or brought under scrutiny at the very least by outspoken voices on either side of the issue.

Shelters face operational and financial issues also: behaviour modification programmes can be difficult to implement in a shelter setting, volunteers and members of staff may be put at risk whilst these programmes are carried out, and animals needing extensive behavioural programmes can be costly and tie up resources. It can also be difficult to find a home that is capable of taking on a dog with a history of aggressive behaviours, or homes that are committed to continued work alongside the shelter to implement management strategies that minimise risks to other animals, to children or to members of the community. Where such post-adoption programmes have been implemented and scrutinised, they have been found to be successful (Mohan-Gibbons et al., 2012)

Shelters that are committed to programmes of rehabilitation can also find themselves in high demand, meaning they face an additional burden within the community that they serve and the arrival of a greater number of dogs presenting with aggressive behaviours that then restrict intake.

With the best will in the world, even the best shelter can be a stressful environment for dogs, contributing to aggressive reactions. For this reason, many shelters are faced with having to destroy animals rather than carry out effective programmes that may still leave the shelter with ethical issues that cannot be easily resolved.
Through the present case studies, I hope to provide a helpful framework for assessment of canine aggression, and two case studies which apply theory in practice. The first case study shows a complex case with a behaviour modification programme in a one-to-one approach and the second demonstrates a behaviour modification programme implemented by experienced volunteers with support from a behaviourist.

The dissertation will also address the following questions:

- What is aggression?
- What diagnostic problems exist when assessing aggression?
- How can shelters work to help dogs who present with inappropriately aggressive behaviour?
The difficulty of defining aggression and the implications of this for shelters

Without a clear definition of aggressive behaviour, there can be no agreement on whether a dog is presenting with aggressive behaviours or not. Therefore, it is logical for a shelter to start by defining aggression and identifying behaviours that can be considered to be aggressive in canines. This in itself is fraught with problems, especially when so much depends on it: it can literally be a ‘life or death’ decision for some dogs.

Aggressive behaviour is more “difficult to define” (Abrantes, 2014) than might commonly be supposed: there is more to canine aggression than growling, snarling, snapping or biting. However, deciding what behaviours are aggressive is vital before any animal professional can make a diagnosis that a dog is presenting with aggressive behaviours or not.

Aggression has been described as:

- “behaviour or behaviour patterns that are used to resolve conflicts, due to threat or challenge, that are ultimately solved by either contest or deference” (Aloff, 2002);
- “threats, postures or harmful actions directed towards another individual… a form of communication” (Alexander, 2003);
- “Behaviour that produced, or was intended to produce physical injury or pain in another” (Nelson, 2005);
- “Any behaviour that communicates overt challenge, threat or the intent to do harm to another individual” (Handelman, 2008);
- “Aggressive behavior is behavior directed toward the elimination of competition from an opponent, by injuring it, inflicting it pain, or giving it a reliable warning of such impending consequences if it takes no evasive action… Aggressive behavior ranges...
from reliable warnings of impending damaging behavior ... to injurious behaviors” (Abrantes, 2012);

- “Aggression is a behavioural strategy for an animal to effect a change in its environment” (Crosby, 2012)

The lack of agreed definition is a problem for shelters in itself. The word “aggression” has been used in so many different contexts that it may have little practical value” (Patronek and Bradley, 2016). Despite the lack of an agreed definition, we can see common themes from these descriptions and it is vital for shelters to understand what aggression is or is not before making decisions based on a diagnosis of such behaviour.

The first of these themes across the descriptions is that it is a behaviour, rather than a fixed part of personality, a temperament quality or a trait.

This notion may seem innocuous and unimportant but it is essential starting point for those engaged in rehoming animals. Temperaments and traits may be considered largely to be fixed in nature, whereas behaviour is contingent on other factors and is therefore variable even if it has been successfully practised and reinforced many, many times. Understanding that behaviour can be changed and having the expectation of success in doing so is a fundamental starting point for shelters.

Even the word ‘behaviour’ itself is not an easy term to define (Dugatkin, 2012) and for clarity, here it is taken to mean that it is a “response” to an “internal or external stimuli” (ibid.). Behaviour (and therefore aggression) is a response to a stimulus or antecedent (Friedman 2017) and therefore something dependent on the environment. In fact, if we could talk about “aggressive”, “risky” or “dangerous” dogs (Sternberg, 2017) who have a fixed temperament, it would undoubtedly make any discussion much easier for professionals involved in the decision-making process. Aggression, however, is not a temperament or trait. Despite
Sternberg’s unsupported assertion that there are “far fewer behaviorally adoptable dogs in shelters today”, aggression, like any form of behaviour, is not a fixed aspect of temperament, and shelters should avoid literature or shelter-based assessments that regularly confuse behaviour with temperament or write about them as if they are the same. Not only that, it is vital that shelters do not label a dog as ‘aggressive’ as some kind of blanket statement based on testing that is designed to provoke a response.

That said, it is precisely the impermanent, mutable and intangible nature of this behaviour which makes it more challenging to predict, leaving animal professionals who are responsible for making “life-or-death” decisions (Patronek and Bradley, 2016) to face ethically complicated discussions over determinations. When definitions are “a mix of vague, ambiguous labels” and “hypothetical constructs” (Friedman, 2004) we owe it to the animals in our charge to remember that “present behaviour” is driven largely by “past consequence” (ibid.) rather than being fixed, and is therefore often something shelter staff, trainers, behaviourists, vets or owners can influence or modify.
Aggression: a definition

Other aspects surrounding the definition of behaviours perceived to be aggressive are also incredibly problematic when focusing on dogs in shelters, but they are important to understand. Aggression is “one of many social behaviours dogs use to communicate information to other dogs [and] humans” (Aloff, 2002). In that it is communicative, it follows the definition of this, that being to share an intended meaning from one entity to another by means of mutually-understood signs. It is a sign given which conveys intent or purpose from an agent (actor, agonist or sender) to a recipient.

In that, aggression has four parts:

- An agent (sender/agonist/actor),
- a recipient/target of the action or behaviour,
- an observable action or behaviour,
- a purpose/intention.

In other words, there are four themes we should observe and record before designing action plans or modification plans:

- Who is the actor? What is known about this dog?
- Who is the recipient or what is the target? What is the focus of their behaviour?
- What form does the behaviour take? How can it be described cleanly and objectively?
  What does the dog do?
- What purpose does this behaviour serve? What is it designed to do?

The questions are naturally progressive but complicated to address for shelters. Three of the questions engage in discussions about largely observable, quantifiable information. The last
engages in a degree of speculation that should be aided by psychological, physiological and medical data.

These questions should be the basis of any diagnostic work specific to any individual dog who has learned through past consequence that aggressive behaviours are a useful tool and they should form the framework of any observation in order to then select the appropriate behaviour modification programme.

The first two parts of the statements are easier to study.

The Agent of Aggressive Behaviours

The agent is easy to observe: it is the one doing the behaviour. Once common medical factors have been ruled out, our key question here is about the dog in front of us. Friedman (2017) states that behaviour is a combination of “genetic history, individual behavioural history and current conditions”. Often for shelters, the first two of those factors are not known or are known only partially or speculatively, other than the fact we are dealing with a dog. The lack of history in itself is a complex issue for professionals involved in behaviour modification.

Surrenders account for 25% of our current population on a sampled day, and a further 15% of our population had been seized from known owners. Even with the contact with owners that this may offer, many of the surrendered dogs arrive as the result of a death, so little information about their individual behaviour history or genetic history may be available to the shelter. Seized dogs usually come with evidence of the situations in which they have lived, which makes it a little easier to understand the individual behaviour history of the dog in front of you. Owner intake interviews from surrenders may be next to useless, with one of the surrendered case study dogs being marked behaviourally as ‘ok cats, ok dogs, ok children’ when this was patently not the case. It can be difficult to know, even for our 40% of surrendered or seized animals, everything about the dog in front of us or what environmental
stimuli have led to the dog learning that aggression is a useful behaviour in affecting a change in the environment.

Most of our population are ‘type’ rather than ‘race’, so genetic history - other than that of being a dog - is unknown. Genetic history may be speculated to some degree. Individual behaviour history presents even less information unless the dog is surrendered or seized. For Dog N, seized from a travellers’ camp having been videoed being kicked, his reaction to men is enough to tell us that he has learned some behaviours that are useful to him to keep men away - behaviours that persist to some degree to the current day, but have allowed the shelter to create an individualised behaviour modification plan for the dog.

But for most dogs, this information is not available which means the dogs effectively arrive with a ‘lost’ slate, not a clean one. Far from being animals with a clean slate, adult shelter dogs are a well-documented slate that has often been lost and shelter staff are left only with what is currently visible: gender, breed, age, physical health and current behaviour in “current conditions” (Friedman, 2017). Whilst a degree of speculation may take place about a dog’s former experience or genetic heritage, shelters are often in the position of starting from scratch on these issues. We must go off the dog we have in front of us. Even observations about age can be inaccurate. It is impossible, therefore, to know everything about the agent of the aggressive behaviour in a shelter environment, simply because we do not often have access to that history.

In a way, this can be a good thing for shelters because it means you can start from a completely objective viewpoint as you cannot speculate about the history or experiences of the dog that have led to them arriving at the shelter. Nevertheless, it is incumbent on shelter staff and those working with the dog to put aside notions that the dog is ‘damaged’ in any
way and to retain an unbiased viewpoint. Sympathies or prejudices have no place in the recording of information about the agent of aggressive behaviours.

Another important aspect to consider is that the agent has no ‘trust bank’ (Friedman, 2017) with the staff or volunteers when they arrive, and this factor in itself has implications. It is not just about the dog in front of us, but about our relationship with them. If we have no relationship, it leaves both dog and human with a gap in our understanding of one another.

**What aggressive behaviour looks like**

The third question relating to the form the behaviour takes is also easy to answer in terms of ‘What You See Is What You Get’ (Aloff, 2002). That said, many people struggle to correctly identify the emotional state of a dog from its behaviours and it is “necessary to recognise the entire range of dog emotions... in order to work safely with an aggressive dog” (ibid.) which includes how relaxed or ‘safe’ a dog feels at any given moment in time as well as “true displays of aggression” indicating that a dog feels “extremely ‘unsafe’” (ibid.). It will be important to use a trained staff member to identify all behaviours, since studies have shown that many people are unable to correctly identify signs of fearfulness or anxiety in dogs - behaviours that can lead to or be concurrent with aggressive behaviours. “40 percent of dog owners and 65 percent of non-owners were unable to correctly identify signs of fear and stress in an unfamiliar dog. Moreover, a substantial number of the non-owners (17 percent, or about one in six people) misclassified a fearful dog as a happy dog.” (Todd, 2015). The more experience a staff member has with dogs, the more accurate assessment of emotional states will be (ibid., ) Therefore, it is a responsibility of shelters to ensure that the identification of behaviours that are fearful or aggressive falls to members of staff who are experienced and qualified. This is a requirement because “you cannot intervene and
persuade the dog to use different behaviour patterns unless you can accurately interpret the signs the dog is using.” (Aloff, 2002).

This of course requires those working with dogs to identify behaviours described as aggressive to have an understanding of canine communication that is rooted in up-to-date information. An understanding of all behaviours will help shelters identify emotional states here. It is not all about barking, growling, lunging or biting; for many behaviour modification programmes that work with dogs “under threshold” (Stewart, 2016) or “Behind the Power Curve” (Aloff, 2002), it will be important that everyone working with the dog understands not only the general signs of arousal for dogs, but also the specific ways that this presents for the individual dog. This is made particularly evident in Case Study II, with a dog who does not bark, lunge or growl before a non-predatory bite and gives few visible signs that he is uncomfortable. Still, he does recognisable things to show that he is not handling the current environment well, and it has been vital for the humans working with him to be able to recognise and understand those signs. Recognising displacement behaviours, calming signals, distance-increasing behaviours, distance-decreasing behaviours and friendly behaviours as well as overt displays of aggression is vital. Beyond the ‘big four’ aggressive behaviours, it becomes more complicated even for those who work professionally with animals to understand canine aggression and all the physical states of arousal that precede it. For this reason, when identifying which behaviours to consider as aggressive, shelters will also need to take a broader approach and be able to recognise behaviours in other dogs as the case study of Dog E demonstrates.

Understanding the role that fear plays in aggressive behaviour is also important when identifying behaviours. Dr Kendal Shepherd’s Ladder of Aggression is a useful if simplistic resource in identifying aggression and good for novices. Whilst I am less convinced on a sequence of behaviours that mark fearfulness in the same way, or that submissive behaviours
would lead on to aggressive behaviours as the ladder suggests, the ‘red zone’ behaviours are clear indicators of aggression and often have a progressive element. Many of the behaviours can also be concurrent (Handelman, 2008).

Abrantes (2012) uses a loose spectrum of behaviours from fearful to aggressive, and it behooves anyone working with a dog to be aware of both ends of this spectrum, which is more in-depth than that of Shepherd. He identifies 24 behaviours: “champing, licking, licking own lips, yawning, muzzle nudge, muzzle grabbing, nose poking, twisting, pawing, eye contact (from staring to averted gaze) ear position, open or closed mouth (and the shape of the mouth) tail position, grooming, genital sniffing, grabbing or showing belly and throat, intruding or evasive behaviour, vocalisation (whining or growling/snarling), bite or grab,
urination, defecation, barking” and Overall (2013) identifies a number of other behaviours that may be of interest. I have left out those which are not visible to the naked eye, but she adds: “salivation/hyper-salivation, anal sac expression, panting, rigidity, head-shaking” and a number of others that are indicative of a dog who is stressed and is therefore more likely to engage in a fight-or-flight reaction. Whilst her list of behaviours relates to anxiety, it is important for those handling the dog to be able to recognise them. Each individual dog is different, and it can be useful to make a video of behaviours in order to go through them frame-by-frame. Baring teeth, narrowing or hardening of eyes, piloerection, body weight position, freezing, staring, lowering or raising tails, closing mouths and raised heads can all be indicative of early interest or intent to engage. Identifying canine body language is important for a number of reasons, not least to understand what the target of the aggression is, but also for a number of behaviour modification programmes which rely on keeping dogs from having to resort to overt displays of aggressive behaviours.

Whilst we accept that fear/aggression behaviours are a spectrum or a ladder, there is a degree of intensity and intensifying behaviour that can precede a bite. Shelters have obvious problems over dogs who have bitten, and whilst we may not treat growling as a severe behaviour, a bite most certainly is. For that reason, the two dogs discussed in the case studies have a bite history that is unrelated to predation or predatory drift, but it is important to acknowledge that biting is not the only troublesome behaviour. However, just because a dog has bitten should not mean an automatic euthanasia for a dog, nor does a dog have to bite to be considered high risk. Again, it is important to assess each dog on their own behaviours and take context into account. Behaviours preceding aggression should be taken as part of the behavioural indicators a shelter can use to make a diagnosis. It is not all about the bark-growl-snap-bite.
The recipient of aggressive communication

It is not just in identifying what behaviours a dog is exhibiting or pinpointing information about the dog itself that can make it hard for shelters to work with aggression. There is also disagreement over who where the limits lie regarding recipients.

For Abrantes, aggression does not include predatory behaviour. For others, such as JP Scott, aggression is limited to behaviours, “involving physical conflict between members of the same species” (1966 in Nelson, 2005) and would therefore only include conspecific relationships.

The narrow scope of this definition would mean that it would be impossible for animals to act aggressively towards other species. This in itself would limit all discussion in shelters about aggressive behaviours to simply discussing particular behaviours about dog-dog aggressivity.

This does not take into account a dog who presents the same behaviours (and even the same injurious outcomes) to animals from other species, including humans and other domestic household animals. For this reason, shelters will need to make a decision about whether or not to include humans. For the case studies that follow, humans will be considered as “pseudo-conspecifics”, a term taken from Mechtild Käufer. Of course, predatory behaviour can be noted around humans, conspecifics and other pseudo-conspecifics and therefore it is helpful to categorise this behaviour separately. Predatory behaviour does not generally involve the behaviours categorised as aggression by ethologists (Abrantes, 2012) and its ethogram is entirely different from aggressive behaviours.

Not only is aggression hard to define, the scope of relationships that aggression might relate to is therefore also open to debate. For this essay, aggressive behaviours may be those evidenced in conspecific interactions an in interspecies or ‘pseudo-conspecific’ interactions
with humans, or occasionally with other domestic animals in a household situation. There is a reason for taking a broader approach when considering aggression beyond the textbook: dogs do not reserve their behaviours simply for other dogs. A dog may resource-guard objects from a household cat, or from its owner. In this scenario, the agent is attempting to send a message that is not necessarily being easily understood by the recipient in the same way that a Japanese speaker may continue to speak Japanese to a monolingual Swedish speaker without realising that their words are falling on unresponsive ears. Likewise, whilst the Swedish-speaking recipient may understand some of the tone or body language, the main message is lost. For this reason, shelters will need to take a broader interpretation of the species of the recipient and consider that dogs may show aggression to humans and to other domestic animals just as shelters will need to take a broader interpretation of predation in considering predatory drift when it may involve humans or moving objects like bicycles, lawnmowers and cars.

The intent, purpose or function of the aggressive behaviour

Finally, there is the most difficult aspect of all to consider when it comes to behaviour, which is considering the function or purpose of the behaviour. Aggression is a sub-set of agonistic behaviours, which can include submissive or defensive behaviours and other competitive behaviours (Scott and Fredricson, 1951) although often the terms are used interchangeably in ways that has further complicated both public perception and the work of the animal professional. The biggest question of all involves the notion of ‘intent to harm’ or ‘display’. For me, it is better to use the word ‘agonistic’ when talking about canine behaviour that has not resulted in actual harm, as it can be very difficult to determine with any degree of accuracy if the dog simply intended to threaten or if the animal intended to harm and was prevented in one way or another by the environment. Is the dog growling behind a fence truly aggressive or are they just posturing? Would the dog who air snaps when passing other
dogs on a leash actually make contact if permitted? These questions are very difficult to answer because intent isn’t always evident unless the animal has been allowed to take the behaviour through to its end, a process that is fraught with ethical issues. Determining whether behaviours are agonistic and only intended to resolve conflict, or whether they are intended to injure can be very difficult unless we get to see the end behaviour. Where canine-canine behaviour is concerned or canine-human behaviour is concerned, saying with any degree of certainty what the intention or purpose of the behaviour is can be difficult because the behaviour is often interrupted or impeded.

It is also difficult to say with any degree of certainty with humans reporting on aggressive behaviours since our natural subjectivity increases the likelihood of statements such as “the dog would have bitten me if it could”, which may or may not be true. For one example, a dog taken into our shelter’s care was described to have knocked over and then been pulled from on top of a teenage boy and “would have bitten him if he could”. It sounded from the description of a dog on top of a prostrate teenager that the dog could have fulfilled any intent by that time. Many of the descriptions actually provide evidence of what is quite clearly significant bite inhibition on behalf of the dog. Sadly, our interpretation of our ability to restrain a dog who wants to bite us is often very subjective. This is unhelpful for shelter staff because it is impossible to know if the dog was actually restrained from biting in cases where most dogs, if they are able to access the target, exercise considerable restraint and bite inhibition despite the other obnoxious or aggressive behaviours.

Our subjectivity and our ethical restraint affects any judgements animal professionals might make about dogs presenting with aggression: we simply cannot know for the most part what would happen if we didn’t intervene. We can never know if a bite would follow aggressive behaviour: allowing dogs to resolve their own issues with other dogs, children or adults is an ethical minefield. In these ways, it will be that the animal professional will almost certainly
be asked to make judgements about dogs who bark, snarl, lunge or snap who may have no intention at all of injuring, but without knowing intention or purpose, it is impossible to decide with any degree of accuracy whether the behaviour is intended to be injurious or simply behaviour that is intended to resolve conflict. As Aloff (2002) says, a noisy display of aggressive barking is designed to avoid conflict, but it is impossible to know what the dog would do if the source of the threat to the dog ignores the given warning. For this reason, there is an uncomfortable, hazy, uncertain middle ground where animal professionals will be talking about behaviours that are agonistic or aggressive as if they are one and the same and where we make predictions of future behaviour based on past experience as if that has any merit at all.

For a better definition of behaviour that would merit behavioural intervention, that of Roger Abrantes is preferred for my shelter work: “Agonistic behavior includes all forms of intraspecific behavior related to aggression, fear, threat, fight or flight, or interspecific when competing for resources. It explicitly includes behaviors such as dominant behavior, submissive behavior, flight, pacifying, and conciliation, which are functionally and physiologically interrelated with aggressive behavior, yet fall outside the narrow definition of aggressive behavior.”

It is certain that when we talk of aggression in dogs, it will be almost impossible to do so in an accurate way. In shelters, when we make decisions about behaviour, we must always be mindful of the fact we cannot know intention or purpose. That said, taking a broadly heuristic line that the behaviour is “intended to eliminate competition” (Aloff, 2002) or “affect a change in the environment” (Crosby, 2012) is helpful: most aggressive behaviour is not there to decrease distance between the agent and the recipient, but to increase it and eliminate threat. In this way, the definition given by Brenda Aloff that it is behaviour to “resolve conflict” is useful. In considering that the dog in front of us finds something
threatening in the environment and wishes to increase distance by eliminating the threat, shelters can work more easily with desensitisation, habituation or socialisation approaches.

In taking the line that habituation involves teaching a dog how to cope with environmental stimuli but not interact with it (Whitehead, 2017), desensitisation and counter-conditioning modification programmes are very successful. Socialisation can be considered as any activity designed to allow the dog to interact with the environment, such as people or other dogs (ibid.). Thus a shelter may habituate a dog-aggressive dog to the presence of other dogs, or socialise them so that they can interact with them.

For dogs and humans, habituation naturally precedes socialisation in many behaviour modification programmes such as Stewart’s Behaviour Adjustment Training. Whilst it may be acceptable for a dog to be habituated to the presence of strangers and other dogs and many dogs live without the need to interact with other dogs or with strangers, any dog who cannot interact positively with at least one familiar human should be referred to a specialist. An inability to interact with a familiar human caregiver after a behaviour modification programme would be a dog with a very woeful prognosis indeed, but a dog who is unable to interact positively with every single other dog on the street is not a dog who presents a rehoming problem, with or without behavioural modification. Whilst we can accept a dog’s limitations and understand their comfort zone, to be able to be rehomed, a dog has to be able to form a trust bond of sorts with at least one human caregiver.

The law itself presents complications. In France, the only dogs concerned under the chien mordeur protocol are dogs who have actually bitten. For shelters, however, taking this post-bite approach and classifying any dog as ‘safe’ if they don’t make contact or dogs as ‘dangerous’ if they do would be to take enormous risks. Even then, no distinction is drawn between predatory drift and aggressive biting, and often shelters are involved in making
decisions involving bites governed as aggressive that have in fact been predatory, in the case of Dog T and Dog R.

With all this in mind, shelters need to make sure they are clear about what aggression is or is not. Observations and evaluations should not be carried out by staff members who look only at a limited range of behaviours in provoked situations. In the following case studies, aggression is taken to mean all observable threatening or injurious behaviour of a dog that is designed to affect a change in the dogs or humans in its environment or resolve a perceived conflict for the dog.

As we also understand canine behaviour to vary depending on novelty, we should also consider a dog’s reactions to familiar and unfamiliar stimuli since dogs are “sensitive to novelty” (Svartberg, 2005). Predatory behaviour should be considered - and treated - separately.
Assessing a dog in a shelter setting

For shelters involved with dogs who present with aggressive behaviours, it can be time-consuming to undertake individual assessments and implement training plans. Whilst our shelter has three behaviourists as part of the staff or steering committee to serve our population of between 100 - 200 dogs, we could happily house an equal number of behaviourists and dog trainers to cope with a large number of dogs who are kept in kennels for the majority of the day and who arrive to us untrained and with few life skills. 70% of our dogs are male. 70% are under 7, with 50% being under the age of 3. On one sampled day, our 114 dogs were comprised as such: 32% are from the gundog group (including a large number of labradors and lab crosses), 24% are from the working group (huskies, boxers, cane corso, dogue de Bordeaux, dogue Argentin, rottweilers and their crosses), 16% are from the pastoral group (mainly German or Belgian shepherds, Beauceron and their crosses), 12% here are hounds or hunting pack dogs and their crosses, and 11% are American Staffordshires and their crosses. On the day in question, we had one dog from the ‘toy’ category. With a large number of our dogs being bigger male dogs with a lot of energy and not a lot of training, most of the problems in our shelter come either from lack of training/life skills or youthful exuberance combined with the frustrations and stresses of shelter living. Having lost large portions of our budget over austerity cuts, we, like many other shelters, have a relatively high turnover of younger members of staff and a number of part-time or short-term contracts.

The shelter is supported by a good number of keen volunteers who have a variety of experience with dogs. A number of volunteers with excellent dog skills support us but are unavailable for the 7-day support our dogs really need. Having a number of handlers in a week means our dogs don’t always get a consistent approach. Whilst we are fundamentally a positive-training shelter, there are some handlers who resent the use of treats to train dogs despite the fact that the two handlers who take on the most challenging dogs have an R+
approach, and we are supported by a well-respected local trainer who also uses R+ methods and food. In recent years, there has been a growing move among the volunteers to become more educated. A large number have undertaken the obligatory 7-hour training course to handle American Staffordshires and Rottweilers, which is based on R+ principles and includes an hour on body language. More still have taken free training days on working with a loose leash and working with reactive dogs. It is becoming a talented and supportive core team of experienced volunteers who are happy to take on behaviour modification and training exercises for their ‘favourites’. Every dog has a champion, or finds one, and this works incredibly well in supporting the dogs beyond their time here, as volunteers have gone to homes to support new owners, and have carried out follow-ups with the dogs they have worked with.

With the best will in the world, most shelters such as ours are understaffed and underfunded. Managing the complexities of aggression cases can be tough when it takes so many forms. A simpler, more heuristic approach is necessary.

Classification of types of aggression is useful in that it leads to established behavioural protocols such as Jean Donaldson’s “Mine!” for resource-guarding behaviours, or Grisha Stewart’s “Behavioural Adjustment Training” for dogs who present aggressively around unfamiliar dogs and/or humans. These are useful shortcuts for shelters where trained staff are thin on the ground but supportive volunteers are plentiful. It also allows volunteers to ‘specialise’ without having to be educated in a broad range of appropriate behavioural modification protocols.

That said, classifying types of aggression is as fraught with problems as coming to an understanding of what aggression is in the first place. Like that, there is a need for clarity of language and an agreement over what it is. When we talk of ‘territorial aggression’, for instance, does everyone involved have a clear understanding and agreement of what that is?
Labelling a dog “can predispose us to ineffective, forceful or harmful models and end the search for actual causes we can do something about.” (Friedman, 2017) and labels are “detrimental to modifying behaviour if you use them to characterise the animal or allow them to limit your thinking” (Aloff, 2002).

Hesitating to identify and classify behaviours that are clearly apparent in a shelter setting, however, can be costly, risky and ethically inappropriate. To spend “30-60” days (Aloff, 2002) in observing a dog with a lowered head, a sideways glance, whale eye, and a frozen position growling over a food bowl and baring teeth on approach (Donaldson, 2004) without making immediate changes in the dog’s feeding environment could lead to a dog with quite clear food guarding issues being able to harm those who feed him as well as harm any dog in the proximity who does not heed the warning signs. In not taking steps to address these behaviours, the dog also gets to practise them and believe in their necessity. In some circumstances, it’s vital to make a quick judgement so that management systems can be put into place such as feeding the dog separately from its companion, issuing clear guidance to staff and volunteers about how to best avoid the behaviour, or keeping a dog-friendly dog from paired living until a proper assessment can be made.

Sometimes, it is unclear without observation whether behaviour fits into one pigeonhole or another. Territorial aggression is an example. Is it true territorial aggression or is it a fear of unfamiliar humans approaching? This will no doubt benefit from a longer period of observation. That said, habituation via desensitisation and counter conditioning to the approach of familiar and unfamiliar humans both in kennels will be part of any modification programme for either behaviour. Introducing protocols that will be effective in either circumstance cannot be “harmful” or “ineffective” (Friedman, 2017) and although they may need refining at a later point, it will do the dog no harm to realise that humans approach
bearing gifts. Using R+ approaches may be partially “ineffective” if a wrong diagnosis is made, but will do no harm.

Despite the problems of labelling, such as the need for clear understanding and agreement over the main functions and presentation of the behaviour, as well as the risks of failure if an inappropriate behaviour modification plan is introduced, it will be necessary at times in shelters. For anyone involved with canine aggression who has a high caseload, there are few times when you think you have never seen a behaviour before. For the majority of dogs in a shelter setting, there is limited need to tackle each dog’s behaviours as completely unique. Such an approach is hugely time-consuming also, and it is no wonder that some shelters have taken to using quick half-hour tests that provoke dogs in order to see how if they present with food aggression, aggression towards strange adults, aggression when constrained or handled or whether they are possessive or have predatory instincts with dolls or plastic arms.

If shelters are to do better in assessment, a middle ground must be found between individual assessments that treat each dog as entirely unique and provocative assessments designed to identify behaviours quickly but in a statistically meaningless way (Patronek and Bradley, 2016).

A simple behavioural assessment should therefore consider the four key elements of assessment as discussed previously:

- The dog itself
- The behaviours observed
- The people or other dogs that have been the target of the behaviours
- The possible function(s) of the behaviours
Since familiarity and new experiences also play a part in canine behaviour, how dogs behave towards familiar and unfamiliar humans, as well as familiar and unfamiliar dogs should also be considered.

Because dogs are “sensitive to novelty” (Svartberg, 2007) tests that put dogs in novel or unfamiliar situations with unfamiliar handlers may provide some useful information, but because habituation and familiarity change behaviours, it is important that dogs experience some observation with their familiar handlers once they are more familiar with the shelter situation. Whilst van der Borg et al. (1991) were dismissive of shelter staff’s opinions, other studies have shown a high correlation of agreement in identifying canine behaviour that correlates with the level of experience of the staff (Diesel et al., 2008) meaning that a familiar environment with experienced testers may be the best way to identify canine behaviours given the statistical difficulties of canine personality tests.

Currently, no validated assessment tool for aggression in dogs exists beyond that of James Serpell, but the C-BARQ questionnaire is often impossible for shelters to complete accurately without a range of historical or in-home information. Despite early studies (van der Borg et al., 1991) stating that better behavioural diagnostics would lead to fewer returns and that “behavioural testing” is more reliable than “opinions of the staff”, Patronek and Bradley (2016) state that these behavioural tests lack in “scientific validation” and they are used to “make life or death decisions” often based on “false positives”. Other researchers conclude that “The inconsistency of results... suggests test bias at the very least and questions the validity of these tests” (Bram et al., 2008) and Christiansen et al. (2007) stated: “there are certain types of aggressive tendencies (territorial, predatory, and intra-specific aggression) that are not reliably exhibited during temperament testing using this particular evaluation process.”. There are also mitigating factors on success of temperament tests, such as the
presence of urine or faeces from other dogs, or length of time in the shelter (Poulson et al., 2010).

Patronek and Bradley further conclude that “it is not possible to predict the real life events that dogs will face in the home,” and it is therefore impossible to recreate these situations in-vitro in a shelter. These tests “bring out the worst in dogs in the stressful and transitional environment of a shelter” and “do not increase public safety”, concluding that it would be better to spend shelter time and resources “in maximizing opportunities to interact with dogs in normal and enjoyable ways that mirror what they are expected to do once adopted” and “engaging in the normal repertoire of activities familiar to pet dogs has the additional benefit of enriching dogs' lives and minimizing the adverse effect of being relinquished and confined to a shelter, will be more indicative of the typical personality and behavior of dogs, and may help make dogs better candidates for adoption.” (Patronek and Bradley, 2016) Shelter evaluations, better matching, pre- and post-adoption behavioural counselling and “other educational opportunities for owners” (Christiansen et al. 2007) would improve public safety. 41% of dogs who passed an in-shelter temperament test had problems out of the shelter (ibid.).

Given the unreliability of shelter tests such as SAFER, SAB, or Assess-A-Pet, with their results being less likely than “flipping a coin” in predicting future aggression (Patronek and Bradley, 2016), it seems more fruitful to analyse a dog in their day-to-day interactions with shelter staff, volunteers and other dogs rather than putting dogs into contrived provocative situations, shelters could adopt a “whole dog” approach and make use of the range of data available from those who feed, clean, walk, handle and treat the dog, as well as observations about their behaviour with the public and with other animals. Confirmation of data from numerous sources would avoid any “unreliable opinions of the staff” (Patronek and Bradley, 2016) and enable behaviourists in shelters to make recommendations for rehoming based on
observable behaviours. For example, one dog, dog S, an American Staffordshire, arrived with information that she was okay with other animals. During walks, she would bark at cats and pull towards them. The note ‘no cats’ was added to her file. In her time here, it has also become apparent that she is an escape artist and can easily jump the 2m enclosures, even those fitted with a flexible mesh panel across the top. Given the fact that she has been loose around our numerous shelter cats and was found in the cattery on one day without having injured a cat, the evidence is largely contradictory. Still when her three regular walkers say she is hard to handle around cats, that she fixes on them, searches for them, barks to get near them and pulls towards them, then does not stop even if face-to-face with a stationary cat, it is not a risk that the shelter would take that she may be okay with cats. Thus, this information will be communicated to potential owners. The assessment took no longer out of a volunteer or staff member’s day than a couple of noted lines on her file and a quick discussion about her contradictory behaviours in a closed group on Facebook followed by a brief evaluation by the shelter manager who is a behaviourist. There is no need to ‘discount’ observations because they are anecdotal, or because they come from volunteers or junior members of staff. To ignore them would be to exclude a large pool of very rich information about the dogs in our charge. In order to avoid individual subjectivities, data such as this works best when a variety of handlers have confirmed or contradicted the observation and then is verified if necessary by a behaviourist. The problem with testing dogs is that it contains the same inherent flaws as all testing: because we cannot test what is truly meaningful, we resort to testing a narrow tranche as if it is representative of everything the test subject is. We resort to what we can quantify and ignore what we cannot. Narrow testing encourages cheating, and it is possible to significantly alter the outcome of aggression tests by over-feeding dogs beforehand or habituating them to plastic hands and dolls. If we can modify test results so easily, we can also modify behaviour easily, and if anything, the current tests prove that well. As with all tranche testing, it depicts a portrait of an assessed skill at
one moment in time. A test at 16 does not show what a candidate will be like at 30, nor does it test their abilities and aptitudes in all aspects of a subject, just as in-shelter testing does not with dogs. It tests what we can measure easily, and that is not always useful.

On the other hand, without a standard test, assessment of aggression relies on copious and often unnecessary individual observation sheets for dogs. Whilst the idea of individual behaviour plans for every dog presenting with issues of aggression is the most preferable way to handle behaviour modification, in a shelter setting this is often not realistic or possible. Nor is it necessary.

For this reason, it will be useful for shelters to decide on a “best fit” heuristic approach that makes the fewest assumptions and records the dog in its daily life in the shelter, including interactions with familiar and unfamiliar dogs, and familiar and unfamiliar humans. Thus, if a dog is unwilling to move away from its food bowl or come out of its kennel and it is growling at anyone who approaches, taking a best fit approach about territorial aggression or possessive aggression is most useful. You don’t need a plastic hand to know a dog is a food guarder. If it looks and sounds like possessive aggression, there may be a few other things to rule out, but it is probably possessive aggression. In this way, a minimal number of well-established behavioural modification programmes can be adapted quickly and effectively. The fact that Dog J, a dog who had killed another dog over food in a group feeding situation prior to surrender, managed to live happily with another dog during his time here shows how effective management is as a tool in preventing aggression. Part of the problem with available aggression tests is that they test what is easy to test, not what should be a priority for owners. Since resource guarding can often be easily managed, and aggression towards unfamiliar humans is often ‘situation-dependent’ (Vas et al., 2005), and many dogs are neophobic (Svartberg, 2005) what goes untested is behaviour towards familiar adults and children, which are often the most complicated situations for a
behaviorist to treat. Yet aggression in these forms is impossible to test for with a standard shelter test. Relying on test results that don’t test for, identify or predict the most challenging and ‘unmanageable’ of situations gives both the shelter and the future owner a false confidence that the dog ‘has tested low’ for aggressivity.

It is challenging, therefore, to find a middle ground and many shelters would be left wondering how to narrow down.

Early aggression studies are helpful in categorising behaviours more broadly and in helping to select from existing approaches to modify behaviour. Borchelt (1983) identifies the following types of aggressive behaviour: fear-elicited (defensive/submissive), dominance/hierarchy, possessive aggression, protective/territorial aggression, predatory aggression, punishment aggression, pain-elicited aggression, gender-based aggression. Some of these behaviours will only be seen with other animals. For reasons discussed earlier, many ethologists would exclude predatory behaviour from this list. Although dominance or hierarchical issues may exist between dogs, all other aspects of dog-dog aggression should be investigated before deciding that a dog is fixated on rank order. Still, Borchelt’s categories of aggressive behaviour hold some use for shelters when choosing a behavioural modification plan that can be implemented by volunteers or regular handlers. Further studies refine or have modified these classifications slightly over thirty-five years, but largely the ‘types’ hold true in most diagnostic classification manuals. Arguably the only one that shelters often see that is not included in Borchelt’s summary is redirected aggression which often happens when a dog is prevented by lead or by barrier from reaching the intended target.

Borchelt’s early research is useful for further reasons. It also notes that aggression is stimulus-specific, and that the dogs were “friendly, playful and affectionate under most other stimulus conditions.” and “Some of the most aggressive dogs were also the most friendly and affectionate.” This is important for shelters to hold in mind. Borchelt notes that “the
co-existence of play, affectionate and attachment behavior with aggressive behavior provides a rich supply of stimuli (other than the obvious food and water) which are inhibitory or antagonistic to aggression and can be used in a counter-conditioning program.” This message can often be lost in behavioural modification plans or in shelter work. It is often assumed that short periods of interaction are not enough for dogs to bond, yet many dogs bond quickly in a shelter setting and thrive off interaction with regular handlers. One example is Dog SH, who made a beeline for a member of staff. She was clearly delighted to see him, jumping, whining and dancing around him. Twenty minutes of play with her one day had led to an unforgettable attachment for one of our more ‘difficult’ dogs. For this reason, play and petting sessions with regular handlers are highly recommended for dogs presenting with aggressive behaviours.

By taking a heuristic approach to canine aggression via day-to-day in-shelter observations and recording these centrally, shelters can build up a clear picture of the stimuli that cause aggressive reactions before implementing a behaviour modification programme.

In choosing homes carefully, many of these stimuli can be avoided for the main part. Thus a dog who is difficult with unfamiliar dogs may be placed in a home with dogs if a long and stress-free greeting protocol has been used under supervision of regular, experienced handlers. A dog who has food guarding issues with other dogs can be rehomed easily with other dogs if the owners are aware of how to manage this behaviour and the shelter are able to provide a degree of post-adoption support. Promoting rehoming without young children or supporting the dog’s adoption to a home with no other dogs would also help. Most shelters would surely support a system of post-adoption counselling, which avoids keeping dogs for unnecessarily long periods of time in the shelter. Common aggressive behaviours can largely be avoided in the right home, just as they can be exacerbated in the wrong home. For this reason, careful matching of dogs who have presented with aggressive behaviours with homes
that would suit them will make all the difference. Shelters should not be afraid of saying no, or asking for the family to take the dog on a trial period following a detailed support session with the dog at the shelter along with several follow-up visits in the home. Ironically, saying “no” to homes where dogs would be faced with a large number of stimuli that have historically caused a reaction may be exactly what is needed to prevent a bite rather than euthanising a dog or releasing a dog to a home who then goes on to present with aggressive behaviours. Accepting that ‘loving’ homes are not always the ‘right’ home for dogs who present with certain aggressive behaviours would resolve many ethical dilemmas for shelters.
In-shelter diagnosis and treatment of aggressive behaviour

In order to quickly eliminate categories of aggressive behaviours and pinpoint an appropriate behaviour modification programme, a flowchart may be useful. One such example is attached as Appendix 3.

Eliminating pain-based motivation for behaviour is the starting point, before eliminating excessive breed tendencies, age-related or life-stage-related behaviours. The first step is an early ruling-out of common medical factors. Thus, Dog A, a griffon cross arriving with 10 puppies presented aggressively to familiar and unfamiliar humans cleaning her kennel or leaving her food: her behaviours are observably with maternal aggression with further possibilities being fear-aggression towards humans seen more commonly in some griffon dogs which may be learned or may be genetic.

Discussions surrounding neutering should also take place but should not be a decision made quickly. This can be hard in shelters who are committed to population control and are supported by studies from the late 1970s through to the 1990s which showed a reduction in aggression in sterilised dogs, or shelters who want to make sure that neophobia or fearfulness are not passed on to any future ‘accidental’ generations. A range of more recent studies question the effects of castration on aggression or even suggest that for fearful dogs that castration may worsen their fearfulness. For fear-aggressive dogs, castration may not be the solution shelters are looking for (Hopkins et al., 1976; Maarschalkerweerd et al., 1997; Overall, 1997; Aloff, 2002; Farhoody et al., 2010.)

Our dogs are housed in pairs where possible to maximise available space and to provide companionship for the dogs as well as opportunities to interact with conspecifics. Dogs housed individually are more likely to develop stereotypical stress behaviours and to suffer
behavioural problems (Mertens and Unshelm, 2015) and kennelling with other dogs fulfills a dog’s need to interact socially. Dogs housed individually move more, vocalise more and exhibit the most number of stress behaviours (Hetts et al., 1992) and the study concluded that social isolation was more harmful than spatial restriction. Routinely, dogs are paired based on mixed-gender/sterilisation status where possible at our shelter which avoids male-male or female-female hormonal aggression. Given that our shelter is 70:30 male/female, however, this is not always possible. Thus male-male pairs are frequently made and allow volunteers and staff to see how dogs behave with others. Thus Dog K who was aggressive towards other males was housed successfully with a number of females. Dog I, whose energy levels and lack of social graces in greetings made a number of male-male pairings more difficult, found a suitably energetic male friend on his third same-sex trial. Dog N and Dog J who present aggressively with all dogs at first have been successfully paired a number of times in inter-sex pairs after careful introduction. These introductions and pairings present us with valuable information about conspecific aggression and it is natural in our shelter that these early activities provide us with information that forms the next layer of observation.

Given the fact that the majority of dogs are housed in pairs, opportunities to observe resource guarding are in fact more difficult, as all dogs are fed in separate parts of the kennel run and are separated by a metal door. We do not permit the leaving of edible chews or even leaving occasional biscuits in most kennels, and most dogs do not have access to toys which they could compete over. Since our dogs are unsupervised at night, and elevated levels of excitement can influence redirected aggression or possessive aggression, companionship has been prioritised over resources. For some dogs, we may reintroduce toys or leave food if there are minimal episodes of conflict between them. Dogs presenting with territorial aggression or kennel guarding are usually housed separately until they are no longer presenting with that behaviour. Thus Dog P, who presented with territorial guarding
behaviours was recently rehoused with a female friend having had a period of weeks where he did not show signs of this behaviour and his day-to-day behaviour with other dogs showed no aggression at all.

By the time the dogs arrive in the shelter they will have been handled a number of times by vet staff and by shelter staff. This includes putting on leads. Any dog resistant to handling or presenting aggressively in these situations is only handled by a small number of volunteers until further observations can be made. Often pain is a significant factor for our touch-sensitive dogs, or for those who are in need of grooming and who arrive in poor condition. The pain may have been treated but the dogs retain a dislike of handling or grooming. Dogs arriving in poor condition may well have been on the street for some time, or it may be the reason for an enforced seizure, but a dog who is surrendered in poor condition may often present aggressively when groomed. For Dog R, a surrendered Bernese mountain dog who was surrendered in poor condition, his behaviour around handling indicated extreme touch sensitivity. Further investigation revealed a pronounced ear infection and lack of habituation to grooming, all of which had combined to make him aggressive when touched. Dogs who reveal themselves to be touch sensitive during vet appointments or in on-site grooming by our groomer or by volunteers may need either medical treatment, shaving under general anaesthetic to remove matted fur or a behavioural programme to desensitise them to handling. Other dogs have simply never experienced positive handling and need to be counter-conditioned to the presence of hands coming towards them or touching them. Since handling is a vital part of the bonding process, petting and grooming sessions are a vital part of volunteer activity and help increase a dog’s sense of wellbeing.

Shelters or kennels may not be the best place to ensure emotional equilibrium for their dogs, but there are ways in which they can maximise the resources available to them. One of the things that has been most successful at the Refuge de l’Angoumois has been housing the
municipal pound on site. This means that they are handled by small, experienced team for eight days and that they are housed in a smaller, quieter run of kennels as well as given a period to acclimatize. Any initial problems are noticed straight away. This means that the dogs face minimal transfer stress and that our shelter director is well-placed to decide where the dogs would best be placed. Some of the kennel runs in our shelter are quieter than others, and for fearful or aggressive dogs whose behaviour is still very pronounced after 8 days with the small pound team, they can be placed in a long, grassed, park area or in one of the shelter’s limited quieter areas. The noise and stress of our ‘main block’ with 57 double kennels is not ideal for dogs who handle stress less well. It is normal for dogs who find the environment to be particularly stressful to be housed more permanently in park runs, with Dog D and Dog H having a permanent park spot. Some have overnight park privileges and others spend a 4 or 8-hour period in our parks on the periphery of the site instead of in kennels. Fearful or vulnerable dogs are often isolated in more enclosed kennels where the auditory and olfactory stimuli of the shelter are less pronounced. Using the available facilities to ensure environmental stimuli are minimised for dogs presenting with aggressive behaviour, as well as keeping to a small team of experienced staff and volunteers who are well-placed to carry out behavioural modification and who regularly discuss the dogs is vital. Thus, whilst ‘handlers’ and ‘emotions’ are at the end of the flowchart, those aspects of behaviour management are useful at all other stages in the diagnostic and observational process.

The ease-of-access between the pound and the shelter means that dogs who are exhibiting higher-than-usual levels of fearfulness or aggression can benefit early on from petting and handling. Hennessy et al. demonstrated in 1998 that a twenty-minute petting session reduces plasma cortisol levels in dogs with effects that last over a week. “Dogs have such a natural affinity to humans that the gentle stroking of a human hand can release chemicals... that make them feel calm and affectionate. They even prefer to be with humans than their
own kind” (Hare and Woods, 2013) which makes a strong argument for regular and plentiful contact with familiar humans in a shelter setting.

Since P+ training methods are not used by our volunteers or staff, punishment aggression is not seen. Nevertheless, it is worthwhile shelters sharing the negative effects and possible consequences of punishment-based methods of behaviour modification on dogs, and ensuring that potential owners are screened then supported in adoption of dogs presenting with aggression towards adults, especially if the aggression is directed towards familiar adults (Herron et al., 2009; Blackwell et al., 2007; Hiby et al., 2004). It will be absolutely vital that new owners refrain from methods of ‘dominance’ which are statistically unlikely to affect behaviour between a human and a dog, but are likely to be interpreted by the dog as punishment and could cause confrontation (Jagoe and Serpell, 1996).

Once all of these aspects have been explored, any ‘idiopathic’ aggression that remains is worth follow-up investigation at the vet. Spontaneous, unprompted aggression that does not improve following the previous steps when everything else has been ruled out is no doubt something where veterinarian support will be vital. In the few times where it has been harder to rule out behavioural reasons for aggression, often there have been complicated medical issues at work such as focal or partial epilepsy, dopamine or serotonin irregularities (Dodman, 2016) but as Dodman concludes, “the majority of behaviours I encounter can be treated first and foremost with common sense, employing strategies that do not involve pharmacology at all.”
Case Study 1: Dog L

**Name:** Emma Lee

**Name, address and phone number of dog’s carer:** Refuge de l’Angoumois, Les Mesniers, 16600 Mornac

**Name of the dog:** Dog L

**Breed:** Berger belge/Malinois X

**Age:** 2 years old

**Gender:** female

**Is the dog neutered/spayed?** Yes

**Length of time owned/in kennels:** In the shelter since July 2016

**General state of health and medical history:** Little known. She is in good condition and up to date with vaccinations.

**Information about the dog’s previous history in a home or kennels:** Dog L was abandoned to the shelter by her owner, apparently because of work commitments. He said that she was okay with cats, dogs and children. He also said that she was a Tervueren by breed, which she is quite clearly not. She went on a short trial adoption in October 2016 and was returned as part of a protocole mordeur. Her predatory instincts are strong. She is fixated on cats and wildlife in bushes, but she is unreactive around mechanical items. She was housed with a six-year-old male Malinois, Garou for a number of months. Prior to his rehoming, Dog L had grabbed a number of volunteers by the arm or coat, having torn coats. She has nipped a number of staff members as they leave or approach, is prone to jumping on people and she will air-snap and lunge towards other dogs. She runs towards the gate, barking and lunging when some volunteers or staff members pass and has had days when she has not been fed as she would not let the volunteer into her kennel space.

**Diet:** Royal Canin Shelter and some donated food.

**Feeding times:** 9am

**Who feeds the dog:** the staff on a rotation
**Family members, and the dog’s relationship with each (or kennel staff, if appropriate):** Dog L is liked by a growing number of volunteers and a few members of staff; other staff members find her hard work and have been nipped by her. One staff member reported taking her food in, and she growled and barked at him. Another said that she had been unable to enter and leave food, so had called for help from a more experienced staff member who also reported Dog L growling and static in her kennel. Many of the volunteers would not walk her or have been nipped by her. Two volunteers had taken to using a choke chain which had then been forbidden by the shelter. Five volunteers reported tearing of clothing. She has never exhibited in-kennel aggression, barrier aggression or redirected aggression to her regular handlers. With regular handlers, she is exuberant but sweet, often exhibiting a number of appeasement behaviours. She enjoys petting sessions very much.

**Who is the main carer for the dog?** For walks and re-education, me. For food and cleaning, the staff on a rotation. Ruth, another volunteer, is now beginning to walk Dog L also.

**Are there any other animals living in the environment, or visiting regularly? If so, how does the dog respond/react to them?** Dog L is very sensitive to the emotional levels of the animals around her. Previously, her position in the main block meant that she had to pass at least twenty other dogs in going out for a walk, and that she spent the afternoons barking and snapping at other dogs passing by. When she was taken out, she repeatedly circled, leapt and nipped the arm of our shelter manager. In the months that I have been working with her, the enclosure next to her has been home to a number of other dogs whose energy levels affect her deeply. Most recently, that has been two very quiet unresponsive dogs and two 8-week old setter puppies, and her other handler described her as “delightful”. Normally the other dogs do not interest her in the kennel adjacent, but Davy the setter seemed to cause her to pace constantly trying to catch a glimpse of him. When five other reactive dogs were in close vicinity to her, her jumping and nipping on leaving the kennel became much more pronounced, culminating in a level 2 bite in which she tore my sweatshirt. Her worst behaviour is around dogs who have high emotional levels and when a nursing mother was in the enclosure opposite.

**Where does the dog sleep?** In a wooden kennel. Dog L cannot have bedding because she destroys it. She is now on her own so that she can follow a re-education programme, which is
impossible to do when there are two dogs in the enclosure. Her behaviour has been much better with staff as a result of being in a one-dog environment and in a quieter area.

**Sleeping patterns:** Unknown

**Does the dog walk well on the lead?** She is extremely interested in the environment and often at the end of the lead. She jumps on passers-by and will veer off suddenly to pounce on something in the bushes, usually a mouse or bird, occasionally lizards, insects or snakes.

**What is the dog’s reaction to people and other dogs when out walking?** Poor if they are within close proximity. She jumps and lunges. If she cannot get to the other dog, she will snap and pull before turning on the handler. She also jumps and lunges on people who pass within three or four metres of her. Sadly, because she often looks under control, many people come much closer than they should. Her behaviour is not aggressive in many ways, just over-exuberant. However, I am in no doubt that she would attack other dogs were she to get close enough. She has certainly jumped up and nipped people or grabbed sleeves and pulled.

**Description of any issues and where they take place:** Dog L is extremely over-aroused when leaving the kennel for a walk and worse when returning. All behaviours have happened within a very limited circumference around the shelter. Outside of this, behaviours are not evident. She often jumps on volunteers who arrive to walk her, jumps and nips them as they try to put on the lead, and then tears out of the kennel to attack any volunteer or other dog in her way. She will circle and come back on the handler if frustrated in her efforts to get to other dogs or cats, biting arms or grabbing clothing and pulling. When out of the kennels, she is more biddable, although she is extremely interested in the environment. She cannot tolerate the direct approach of other dogs and is over threshold sometimes from more than 50m away. Sometimes on returning to the kennels, she will also circle and nip if there are high levels of energy. She is easy enough to get to the gate of the complex, but the sight or possibility of seeing any number of animals or people is over-stimulating for her and she is over-aroused until she is back in her enclosure.

Dog L has strong predatory instincts and poor bite inhibition although her bite strength is strongly inhibited and she has never bitten more than a Level 2 bite (Dunbar bite scale). She fixates on cats and often has to be dragged past them. Unfortunately they are very near the kennel areas and there is little way to put distance between Dog L and the cats at that point.
especially with other dogs coming and going. Several are free-roaming cats and if she is not handled properly she will lunge to attack any passing cat, moving or not.

Dog L will also bite people who leave the enclosure when their backs are turned.

**When did the problem start?**

Unknown. She came to my attention when she was being ‘scruffed’ by a volunteer in punishment for her behaviour some five minutes before. The volunteer was cautioned for the response and later gave up volunteering. Her trial adoption in October 2016 gave some indication of her behaviour. Certainly by March 2017, her behaviour was noted by all volunteers and the shelter manager had difficulty walking Dog L from her kennel in the main block.

**Are there any obvious triggers to the dog’s undesirable behaviour?**

Cats: moving, still or sleeping. The sight of a cat is enough to cause her to freeze. She anticipates seeing cats as we pass the cattery, and even though they are blocked from sight, she still finds it difficult to pass the area.

Dogs: male or female. Dogs who fix on her or who face her down get the worst reaction, but she will also lunge and airsnap at dogs paying no attention to her. She is predatory with small dogs and aggressive towards larger dogs. Her recent behaviour towards two puppies was endearing. She approached and allowed them to lick her muzzle, then lay down with her back to them, between the enclosure and the public. Recently, with a dog who turned away from her during her lunges and charging on return to her kennel, she was completely disarmed. She has become habituated to presenting aggressively even with dogs who do not do the same.

Leaving and returning to the shelter: Dog L has to pass a number of dogs who bark and lunge at her. This is unavoidable. She then has to pass by the cattery and then the reception area. This causes her to lunge at other dogs and also to turn on her handler. She has not turned back on her handler since April 2017, either suggesting she has mastered a level of frustration, that her handlers know her better and can avoid the situation or that she does not redirect aggression on familiar handlers. Given her response to familiar adults (delight, submissive rolling, whining, affiliative and appeasement behaviours) and to unfamiliar adults (barking, lunges, jumping, nipping), it is likely that some of this is related to her behaviour around unfamiliar people as well as a combination of the other two factors.
walking at the side, she will often drop back and jump on her handler from behind. To date, the majority of her nips have been right forearm or right upper arm from behind.

Dog L often returns to her kennel and drinks a large amount of water. It is clear that she finds the return as stressful, if not more so, than leaving.

Dog L is most successful at leaving and returning when the shelter is quiet, when there are no visible cats and when there are no dogs or humans in the courtyard. When she can leave without other dogs barking at her and when she is surrounded by dogs who do not exhibit this behaviour, she does not present with an inability to handle arousal. In her kennel, she is most successful with women who approach gently, who ask for her to sit and reward her. On walks, she is unproblematic in a quiet environment without other dogs who present a challenge or threat via their own behaviour in close proximity to her. By jumping on her handler or other dogs, she is able to release a large amount of emotional energy.

**How do the carers react when the dog displays issues?** Since issues came to light, she has only been walked by me, and more recently by another volunteer who is used to shepherds and reactive dogs and whose methods I trust as entirely positive. I ignored nips or clothes grabs which have faded completely. For jumping up, often I turn away. I ignore poor behaviour and forgive quickly, but I am not averse to putting Dog L back in her kennel and walking off if she is being particularly challenging.

**Does the issue occur at particular times or in certain places?**

Feeding time, cleaning time, any time there is anyone entering her kennel or leaving it. Walks, entirely around entering and returning to the kennel. Very occasionally when other dogs approach when out on a walk. It is possible it is behaviour related to ‘intruders’ in her space, whether that is a physical space or proximity around her. It is also possible that it relates to predatory behaviour that fills a vacuum when stressed.

**What have you observed in the form of body language and behaviour between the dog and his/her owners, and between the dog and yourself?** Dog L is an exuberant and joyful dog. She enjoys being touched and will approach me vigorously when I come in. She jumps, circles, whines and rolls on her back. Her eye contact is poor but we are working on this, as we also are on ‘soft eyes’. She likes to jump up and generally enjoys jumping as a way to release energy. When I sit with her to do floor work such as ‘leave it’ and ‘drop it’, she enjoys sitting next to me and we have a very tactile relationship. Everything Dog
L does is at full strength, whether it is licking my mouth and face, coming for petting or jumping for joy.

**How do you recommend that the dog's issues are addressed?**

- Thorough observation of Dog L’s behaviours in presenting aggressively at mealtimes and cleaning times, as well as when volunteers pass.
- Thorough observation of Dog L’s behaviours when she leaves for a walk or returns.
- Completion of a frequency chart of behaviours over a 7-day period. This should be re-evaluated every 4 weeks.
- Pattern work before leaving the enclosure to establish routines and make Dog L feel safe on exit rather than she needs to make a display of aggressive behaviour in a heightened state of over-excitement. This allows her to manage her arousal levels. This involves 5 minutes of calming handling and massage, grooming or contact, or running quickly through a range of learned behaviours such as *sit*, *down*, *through*, *touch* and *look at me.*
- Dog L also followed Dr Karen Overall’s protocol to improve her connection to her handler and to establish trust.
- Establishing of manners (‘sit’ and ‘stay’) before putting lead on rather than jumping or dancing about.
- Teaching an incompatible behaviour when leaving the kennel (four feet always on ground) and phasing out of jumping, circling or other inappropriate exit behaviour other than walking with four feet on the ground in a straight line on a short lead.
- Conditioning to a muzzle before habituation and regular use.
- Walking with Dog L always in front on a short lead within the heart of the shelter complex and then longer lead outside of the complex. When she pulls on the lead or lunges towards dogs, handlers will step back, still facing her, and ask her for a sit or hand touch before continuing when her arousal levels are more controlled.
- Management of the environment when entering and leaving: not doing so when other dogs are arriving or leaving, which causes a lot of noise and means that there are more volunteers and dogs about. Not going for walks on days of high emotional energy in the kennels, and doing in-kennel activities instead such as touch targetting, chewing, grooming, Ttouch, snuffle mats and stuffed Kongs.
- Conditioning of an alternative emotional response using food with people and dogs at a distance. Grisha Stewart’s BAT programme for the presence of dogs. Likewise the approach of people.
- Better management of her kennel's geographical position.
- Regular grooming, play and petting sessions with regular handlers to build up her trust bank and expand her repertoire of trusted humans.
- Walking at the beginning of the afternoon when the shelter is quietest, dogs are more calm and visitors have not yet arrived.
- Quieter walks away from the main drag where she has to pass a number of other dogs.
- Encouraging regular volunteers to ask for a sit at her kennel gate when they pass, rewarding with food.
- Teaching behaviours: sit, sit-stay, eye-contact-stay, sit-at-side, sit at a distance, sit on entry of staff to enclosure, sit in courtyard, sit on exit, sit at gate, sit
- Teaching behaviours: down, down-stay, eye-contact-down-stay, down at a distance
- Teaching go to mat
- Teaching better impulse control: leave it, drop, look at me, look at that, wait, gentle
- Leslie McDevitt’s Up-Down game and Control Unleashed programme

The main programmes to habituate Dog L to the presence of dogs and humans will be Control Unleashed and BAT with the potential aim of interaction. Once Dog L is habituated to unfamiliar adults, remedial socialisation with strangers can take place. The shelter is ideal for this since there are many dog-friendly people present and a number of experienced volunteers. By managing her arousal levels and teaching her ways to behave appropriately as well as how to manage her impulses, Dog L will be able to leave the shelter without leaping on or biting her handlers or those in her immediate space. Her rewards will be soft chewy biscuits and meat. Since the arousal begins in her kennel, it is important to start in the kennel. The best approach for this will initially be after she has finished a walk and returned.

The programme will have been a success when:

1. Dog L can leave and re-enter without being over-aroused or harming her handler
2. Dog L can let staff and volunteers leave and enter her kennels without aggressive behaviour towards them
3. Dog L is habituated to the passing of other dogs and humans outside of her lead length

Further to this, there is then the potential to work on:

1. Dog L’s predatory behaviour around cats and small dogs
2. Dog L’s reactions to the presence within her lead length of most unfamiliar adults
3. Possible socialisation with other dogs - but not a must

Recommendations for adoption include a secure garden space and a home without cats. It is recommended that she is adopted to an adult-only home. She will need to continue her behaviour modification programme beyond the shelter and work on her reactions around unfamiliar visitors to the home as well as any humans she meets on a walk. Walks should always be on-lead until she has completed a full series of sessions successfully on harnessing predatory urges. This may never be possible. It is not recommended that she be rehomed with smaller dogs. Dog L may be rehomed after a successful meet-and-greet with larger dogs, preferably male. She would particularly enjoy obedience work or agility work, and with care, she will excel. Her progress to date has been excellent. No cats, no kids, a trial adoption with commitment from future owners to continued work with behaviour protocols and a home with experience of Malinois or other shepherds. It is not recommended that she work in security or protection as her bite is fully developed and difficult to put on cue. She thrives off connection with people and it would be to her detriment to be working on her own or left to guard a yard.
Case Study 2: Dog E

Name: Emma Lee

Name, address and phone number of dog’s carer: Refuge de l’Angoumois, Les Mesniers, 16600 Mornac

Name of the dog: Dog E

Breed: Shepherd cross, possibly some Shiba Inu

Age: 6 years old

Gender: male

Is the dog neutered/spayed? Yes

Length of time owned/in kennels: In the shelter since May 2015

General state of health and medical history: Little known. He is in good condition though overweight.

Information about the dog’s previous history in a home or kennels: Dog E was picked up by the pound in Chirac, Charente. This is a mainly poor, rural area. It is also near to a larger town with high poverty rates and a local cross-country route. There is no indication of any part of Dog E’s genetic or behavioural history. He is 45cm at the shoulder. He was identified by the pound vet as a shepherd cross, but is certainly no visible breed of any recognisable type. Other than being aggressive with other males that we have attempted to place him with, he is friendly with human beings, does not exhibit any aggressive behaviours. In January 2017, he bit a volunteer who was walking him on the leg. Since there were no other volunteers present, it is unclear as to what exactly happened. The bite was classed as a level 4 bite on the Dunbar Bite Scale, being a deep puncture requiring stitches in which Dog E bit down and held on for over ten seconds. He gave no indication prior to the bite, according to the volunteer. For the sake of interest, a newly-arrived German Shepherd bit another volunteer earlier on the same day and was later euthanised. It is not at all uncommon for bites to happen in clusters on the same day. Dog E had previously been referred to me for biting his lead. Although advice had been put outside his kennel, not all volunteers followed this. The bite happened outside the main gates on his return after a walk. No other volunteers or dogs were within the vicinity. The victim was a 70-year-old volunteer
who was a regular dog walker but not one of Dog E’s regular walkers. She said he did not bite the lead on that particular day and that she did not restrain him in any way or notice any behaviour from him that indicated that he would bite.

The event caused a wide divide of opinion for shelter volunteers and staff. Many felt that Dog E had been with us for a long period of time with no signs of aggression towards humans and no other signs of problematic behaviour other than a perfectly usual dislike of male dogs and a tendency to bite the lead when over-aroused at the beginning of his walk. Part of the problem may have been the long duration of his stay, his lack of canine companionship or the arousal levels of the dogs on the day concerned. It may also have been his relative lack of familiarity with the walker he bit.

He was assessed by a vet as part of the protocole mordeur procedure and then again for a behavioural evaluation. Given the nature of the bite, it would not have been particularly surprising had it been recorded as a niveau 4 because of its unpredictability and strength. In that case, the shelter may have been required to put Dog E to sleep by law by municipal authorities. However, the vet who conducted the behavioural assessment did not notice any particular antecedents before the behaviour and the cause or circumstances could not be clarified. It may very well have been predatory, but unless it is repeated, we cannot know.

He is in the shelter awaiting placement in a smaller association who specialise in difficult adoptions.

**Diet:** Royal Canin Shelter and some donated food.

**Feeding times:** 9am

**Who feeds the dog:** the staff on a rotation

**Family members, and the dog’s relationship with each (or kennel staff, if appropriate):** As part of his behaviour programme, Dog E is now walked by a select team of five experienced volunteers including myself. He had prior experience with all four of the volunteers. His relationship with us is excellent. He is a jolly soul, if a little pushy at times. He has a very clear understanding of when he can take liberties and who with, and his behaviour is different depending on the skill and permissiveness of the dog walker.

**Who is the main carer for the dog?** Dog E is regularly walked by five experienced volunteers, with two having taken a leading role in his management.
Are there any other animals living in the environment, or visiting regularly? If so, how does the dog respond/react to them? As part of his initial post-bite in-shelter assessment, it became clear that Dog E is not a very vocal dog. He does not growl, nor does he snap, lunge or grumble. He never hardens or stiffens when faced with other dogs, and so it is hard to know how he feels about them. All attempts to place him with other dogs have failed, but I am unclear as to whether he has ever had a female test or not, since we have so few females on site and a high turnover.

Where does the dog sleep? In a wooden kennel.

Sleeping patterns: Unknown

Does the dog walk well on the lead? Dog E walks well on the lead and rarely pulls.

What is the dog’s reaction to people and other dogs when out walking? Dog E never barks at people. He is happy to meet new people, although video showed that he finds this more stressful than regular people. He is sociable and jolly. Dog E does not pull towards other dogs and gives no easily visible warning that he is feeling uncomfortable with the proximity of other dogs. Possibly he has never learned how to signal discomfort to other dogs until it is too late, and he does not demonstrate any of the signs of aggression, even at a very low level. He is a very hard dog to read in that even very experienced handlers would assume he is happy. During the initial observation, I sat with him in a garden enclosure at the shelter. He barked occasionally at other dogs, ran to the fence to see passing dogs as you would expect and exhibited no fear or anxiety when approached by humans. He sat a number of times for a biscuit and accepted petting. He shows no anxiety when being petted, but it is clear that he is either unused to touch or that he does not like it particularly. Dog E knows a little how to play, but he is not very interested in toys. I suspect he had very little interaction with humans in terms of physical contact or play.

Description of any issues and where they take place: Like many dogs, Dog E finds the shelter stressful. He bites the lead and tugs. This is often an outward sign of a dog that is handling stress badly and also a dog who expresses emotions through his mouth. Dogs who do this are often ones who present with other clusters of over-aroused behaviour and dogs who end with displacement biting. Despite the shelter’s efforts to ensure volunteers do not allow lead biting to continue, many less experienced volunteers try to walk the dogs anyway, and some dogs see it as a prerequisite for a walk. Prior to the bite in January, his behaviour
in this respect had been getting worse and worse, although the volunteer who was bitten reported that he did not do it on the day in question, which is surprising in itself.

Dog E is mildly touch sensitive and unused to handling. He does not like restraint and it could also have been that he was frustrated by lead pressure on the day in question.

**When did the problem start?**

The leash biting started within 6 months of arrival. His only aggressive incident with a human in over two years has been one level 4 bite. He has never growled, snarled, bared his teeth or snapped at humans. He does not even bark at humans. It was very much a one-off incident but one that has caused significant repercussions.

**Are there any obvious triggers to the dog’s undesirable behaviour?**

Leaving the shelter for a walk.

To rule out: possible constraint anger, perhaps issues with frustration and impulse control; possible predatory behaviour or aggression when punished.

Dogs: male. Dog E is sensitive to male dogs within his proximity.

Humans: occasionally Dog E can be a little pushy and over-focused on food if he knows his handler has treats, which we always do.

**How do the carers react when the dog displays issues?** Dog E still bites the lead with two of the volunteers, who allow him to continue despite the risk it places that he’ll mount the lead and bite their hand, and despite the risk that he will loosen the slip lead and then be at liberty in the heart of the shelter, where there are often other dogs, children, adults and cats. His other carers are more strict and happy to wait until his frustration levels have dropped by asking him for an alternative behaviour. Currently, his alternative behaviour is ‘sit’, but we are working on alternative behaviours using his mouth, such as carrying a toy.

**Does the issue occur at particular times or in certain places?**

Leaving the shelter on a walk

**What have you observed in the form of body language and behaviour between the dog and his/her owners, and between the dog and yourself?** Dog E is often excited before a walk. He jumps and mouths the lead. On walks, he is careful to do what he is asked, and enjoys the companionship of his handler. He can be pushy and demanding,
offering behaviours without being asked in the hopes of food, trying other behaviours to see if they will get him biscuit. He is a smart, human-focused dog who nevertheless can be pushy. When asked to perform a behaviour, he does so immediately, even when aroused or excited. He does not enjoy touch or contact, games or other interactions. Thus, a walk is his only mechanism for output of energy, and since he does not chew toys or enjoy play, he has few other outlets for his natural canine energy.

How do you recommend that the dog’s issues are addressed?

- Thorough observation of Dog E’s behaviours with a variety of stimuli well-known to trigger predatory behaviour in order to rule out predatory behaviour or in order to put it on cue if evident.
- Thorough video of Dog E at high stress moments to understand his personal behaviours better.
- With a small, regular team of volunteers.
- Through managing his environment, only taking walks after 5 pm when the shelter is quieter and through use of boots and gloves for volunteers.
- Pattern work before leaving the kennel to establish routines to manage Dog E’s level of arousal. This involves 5 minutes of a range of learned behaviours such as sit, down, through, touch and look at me.
- Lead desensitisation so that he learns not to bite the lead. Consistent behaviour of volunteers as Dog E already understands walks do not happen if he bites the lead.
- Use of chew toys, Kongs, snuffle mats and food-based dissection games to occupy him in his kennel so that he is exercised thoroughly
- Removal of food bowl to manage diet and use of all food in either dissection/puzzle toys, hand-feeding, classical conditioning and reward in operant learning.
- Teaching an incompatible behaviour when leaving the kennel: carrying a toy which occupies his mouth and gives him an outlet for mouthy energy.
- Conditioning to a muzzle before habituation and regular use.
- Impulse-control training to include wait, leave it and drop it.
- Desensitisation to touch and constraint using Jean Donaldson’s programme in Mine!.
- Conditioning of an alternative emotional response using food dogs at a distance.
  - Grisha Stewart’s BAT programme for the presence of dogs.
- Change of kennel to a more isolated, quiet area.
- Quieter walks away from the main drag where he has to pass a number of other dogs.
- Teaching behaviours: sit, sit-stay, eye-contact-stay, sit-at-side, sit at a distance, sit on entry of staff to enclosure, sit in courtyard, sit on exit, sit at gate, sit.
- Teaching behaviours: down, down-stay, eye-contact-down-stay, down at a distance.
- Teaching of a calming and relaxation protocol.
- Possible addition of other complementary therapies to calm Dog E and help him cope with kennelling and handling, such as Ttouch.
- All handlers to be trained in methods to stop leash-biting and recognise Dog E’s personal behaviours during stressful events to ensure that he does not escalate.

The programme will have been a success when:

4. Dog E can leave and re-enter without being over-aroused and biting his lead;
5. Dog E can let regular handlers touch him and pet him for increasingly long period of times;
6. Dog E has had sufficient mental stimulation during the day that he is not over-aroused when leaving for a walk.

Rehoming for Dog E will be difficult. It is advised that his future home are adults only and that there are no other pets. Elderly owners are not advised. He will need a secure yard and to be walked on-leash and muzzled in areas around people. Dog E will most suit a home where he has access to a secure yard and where his owners continue to work with him on accepting touch and restraint, as well as giving him the structure he needs. It is not advised he be adopted to a home that is noisy or overstimulating and owners will need to make sure Dog E does not feel coerced. A non-punitive home will be essential here. Further work with a behaviourist and possible introduction to the home environment by one of his regular handlers is advised.
Conclusions

Although rehoming animals who have presented with aggression in the shelter is an ethically difficult decision, with support beginning before the dog is rehomed, good progress can be made in identifying situations in which a dog is likely to present with aggressive reactions. Behaviour modification programmes can begin in the shelter with guidance and support from a behavioural team. Experienced volunteers and staff members are well-placed to help dogs overcome their emotions regarding unfamiliar humans. It is recommended that shelters restrict the number of handlers for dogs who present with aggressive reactions to humans in order for those handlers to build bonds and trust with the dog. Support in identifying the full range of emotions demonstrated by the dog will help regular handlers prevent further unwanted behaviours and a clearly-explained behavioural protocol for dogs who present with common issues will help. Hand-feeding, R+ training methods, environmental management and obedience training will help dogs gain the life skills they need and learn new responses to old threats. Creative thinking about the shelter itself can also lower the stress levels for the dogs who find it an overwhelming experience.

A careful programme of observation of in-shelter behaviour in order to identify common aggressive behaviour patterns successfully before drawing up an adapted behavioural plan based on a number of positive reinforcement approaches will help desensitise the dog to environmental stimuli that has caused the reaction in the past as well as learn new responses to those stimuli.

Ensuring homes are carefully matched to a dog’s need and that future owners are fully aware of the facts involving the dog’s current behaviours and history in the shelter (if not before), alongside continued programmes of support in the community will minimise risks for the future owners, the dog, the shelter and the community.
When shelters accept that aggression is a response to stimuli rather than a personality trait that is set in stone, it allows for behavioural change. The more experience shelters gain in successfully supporting the rehoming of historically-aggressive dogs, the better they will get at it. In abandoning meaningless provocative testing or temperament tests, shelters can still identify common behavioural problems easily and use one of a range of proven, effective and successful modification programmes to bring about change. By observing what we have, deciding what we want and teaching the dog in a positive way that their aggression is unnecessary and unsuccessful, shelters are well-placed to help dogs learn that the world is no threat to them. Not only that, it then gives the staff and volunteers the expertise to help owners of dogs adopted from the shelter who did not present with challenging behaviour in the shelter but have begun to do so following adoption. Pre-surrender work with owners who wish to surrender their dog for aggression may also fall under the shelter’s remit in order to minimise surrenders for behavioural reasons and thus lower the rates of relinquishment. I’d like to finish with a quote from Dr. Karen Overall:

“We should let go of the myth that pets with behaviour problems are best euthanised because there are plenty of “nice” pets in shelters who are problem-free and will otherwise never get homes...

Well-behaved and happy pets are something that we can all help create.”

When we remember that, as Borchelt says, even the most aggressive of dogs can be “friendly, playful and affectionate” under different circumstances, it truly allows us to build a shelter where no dog is left behind just because we are inadequately prepared to help them change their behaviours. Every dog matters.

Emma Lee.
Appendix 1

A summary of the French shelter system and the context for the shelter and pound

There are two enterprises in place on our site in Mornac, Charente: the pound and the shelter. They are two financially independent bodies that work together but have different functions and roles.

In France, all administrative townships or municipalities must have provision for stray animals (Article L211-24 du code rural et de la pêche maritime). In the Charente department, this is managed by the Syndicat Mixte de la Fourrière, to which most municipalities subscribe. This is a legal agency set up on behalf of the administrative districts of the region to manage stray animals (Syndicat Mixte de la Fourrière 16, 2017). The Syndicat allows the 382 administrative districts of the Charente region to work together more efficiently and was created in 2000 by legal statute. Most administrative districts subscribe. It covers the stray animals in a population of around 350000 people including the city of Angoulême and a number of larger towns, as well as a mainly rural community. The Syndicat awards contracts to kennel facilities to house and manage stray dogs and cats on a two-yearly cycle. Currently, there are two pounds in the Charente region: the fourrière de Mornac, based on the same site as the Refuge de l’Angoumois, and the fourrière de Champagnoux, which deals with a smaller number of administrative districts and about 100,000 people. The Fourrière de Mornac covers almost two-thirds of a large rural and urban area, serving roughly 250,000 people. From one side of the pound’s catchment to the other, it is roughly 100km NE-SW, 100km W-E and 80km N-S. Town halls in our area contact the relevant pound to arrange pick-up of dogs and cats. Following this, the pound must make attempts to locate owners and has a legal obligation to house strays for 8 days. Although microchipping has been an
obligation since 1999 for dogs and 2012 for cats in France, around half of the dogs who arrive in a given year are not identified, and around 95% of the cats. Our intake generally averages 1 animal per 250 inhabitants, in line with national figures. In 2015, the pound accepted 596 dogs, 270 of which were returned to their owners. Under half of this number were identified, and so the pound works with local vets to identify dogs by microchip before returning them to owners. Sometimes, details are not up to date in the national database (ICAD) and so the pound staff make good use of social media to publicise animals and locate owners who have moved or changed phone numbers.

In 2015, 318 dogs who arrived in the pound at Mornac passed over to the Refuge de l’Angoumois, the charitable association that takes up the majority of the site physically. These dogs are either unidentified or we have been unable to locate owners. From time to time, a small number of owners refuse to come and retrieve their animals or go on to sign the animal over to the shelter. The number of stray dogs decreased from 729 in 2014 to 596 in 2015. 268 dogs of the 596 were not identified, and 54 animals were identified but owners were not located, or did not come to claim the dog. These pass over to the Refuge on the whole. A small number are picked up by breed-specific associations who claim animals direct from the pound.

The Refuge de l’Angoumois is a large, well-established charitable facility in South West France that can house up to 200 dogs and 150 cats. It is a purpose-built independently-run charitable association on the edge of a large stretch of national forest and an industrial zone, bordering an urban area of 100,000 people and has existed in one form or another since the 1960s. In the average year, we accept and rehome around 1000 animals. In 2015, we accepted 555 dogs, 318 (57%) of which came from our on-site pound and 47 (9%) came from the second pound in the region. We also accept surrendered animals, which now make up around 20% of our intake. Often these are either the result of a death or change in family
circumstances, but sometimes because the dog is at risk of being euthanised for incidental medical or serious behavioural reasons. We take referrals from local vets for dogs who owners ask to be euthanised unnecessarily (often genetic illnesses that can be managed through medication) or who have bitten in circumstances where the vet thinks the dog would be minimal risk in other situations.

The shelter also deals with complaints of neglect or mistreatment, and works with local law enforcement and town officials as well as social services to manage abuse and neglect. In 2015, we dealt with 74 dogs who arrived due to neglect or cruelty, roughly 13% of our intake. This can also mean dogs who have been removed by law enforcement officers under France’s ‘Protocole Mordeur’ system (Arrêté du 21 mai 2017) which is a vet-run system to ensure bites are not as the result of rabies. It is mainly concerned with hygiene, not risk or behaviour. Municipal authorities can also order the removal of a dog from an owner if the dog has bitten or clawed, or if the dog is subject to breed specific legislation and the owners do not have the necessary paperwork. In these cases the shelter is charged with housing the animal securely in lieu of suitable accommodation with local law enforcement. Sometimes, these dogs are subject to a mandatory euthanasia order: in 2015, 3 dogs were subject to a mandatory euthanasia order. In general, very few animals are put to sleep at our pound and shelter. 6 animals were euthanised in 2015 via the pound - 3 for medical reasons and 3 as a consequence of a mandatory order. In the shelter, 24 animals in 555 either died as a result of old age, disease or euthanasia. The large majority of these deaths were young, recently-arrived dogs who died from parvovirus. Most of the deaths from parvovirus are from dogs who arrive from other sources than our pound. A small number of deaths were accidental usually due to accidental injury when unsupervised, or, incredibly rarely, attack from another dog, sometimes inadvertent. Some deaths are related to diseases of old age or stomach torsions.
We are affiliated with the Confédération Nationale des SPA en France, a network of 260 independent animal protection associations who handle 80% of France’s stray cat and dog population (CNSPA, 2017) and we support their missions. We also work closely with other shelters, most notably the shelter in Poitiers and the pound in Niort, which does not have a shelter to accept its unclaimed stray animals.

In the Charente, we are lucky to have the pound on site so that we can prepare for the arrival of dogs and cats. Prior to 2014, when both local pounds were sited elsewhere and managed by an independent kennels, the Refuge de l’Angoumois had no real idea of what dogs or cats would arrive in a given week. This system allows us to assess dogs in the pound and plan a management for them before they even arrive in the shelter.

The shelter has one main run of 57 enclosures around a central drag, known as the grand bâtiment. This has the potential to house around 110 animals. There are indoor, sheltered areas of 3m x 1m (unheated) and outdoor areas of 3m x 1m, separated by metal grilles from the others. The indoor areas include a wooden kennel and a dog bed, with bedding if possible. Most have doors between the inside and outside area which are used to separate the dogs at feeding time in order to feed them safely. The main run also includes three isolation rooms, an infirmary, a large shelter kitchen and the office complex as well as separate housing for a number of cats in isolation.

There are also 4 satellite buildings with 6 enclosures, which can home up to 48 animals, as well as 10 outdoor grassed ‘parcs’, 7 of which are used to house individual dogs who present behavioural problems. The three other parks are used on a rotation for dogs. This can be for meet-and-greets, for daytime breaks from the enclosures or for overnight breaks from enclosures.

The pound has two dedicated park areas and seven enclosures.
There are 13 members of staff across the pound and the shelter, and that includes some switching between the two structures. Funding varies and employment law means that we have few permanent members of staff, with high staff turnover for junior members or temporary roles. Currently, our director, our vet nurse, our secretary and the person responsible for managing the cats have permanent roles. That will be expanding to include a head of team. The other nine members of staff are split between the cattery (one full time and one part time), the pound (two full time or post shares) and the kennels. Junior members of staff do not generally have qualifications in animal welfare, although one has worked in a vet surgery as an assistant and a number have animal qualifications or have worked with animals before. Everybody else is a volunteer, including the twelve shelter trustees. On a good day, we have between twelve and twenty volunteers in the afternoon working with the dogs. Staff members clean and feed in the mornings, and full-time staff members are often involved in medical care (removing stitches, administering medicine, checking wound or operation sites) or pairing dogs in the afternoons, as well as in giving afternoon meals to around 25% of our dogs. Most of the afternoon interactions for the dogs are with volunteers and potential adopting families. On some afternoons, there may only be two or three volunteers. There is currently no programme of support for volunteers, and most are drawn by their love of animals rather than particular expertise.

Although the volunteers have a generally positive approach to working with dogs, the low level of dog training support in France, the limited number of classes and the reliance on punitive methods in many of those classes means there are not a large number of volunteers who have expertise even in training their own dogs. Thus, many have no understanding of how to train a dog to walk loose lead or how to approach dogs without over-exciting them. There is also a high turnover of volunteers as work and family commitments change or dynamics in the group cause disagreements. Walking is a physically demanding activity and
many volunteers are unprepared for how demanding that can be. Shelter work is also very challenging emotionally and many find it sad or upsetting. However, many have a dedication to a particular dog and invest heavily in their welfare. They donate a huge amount of time and care, and they want the best for the animals. Some volunteers work more exclusively with the dogs who have problem behaviours and they are keen to put programmes into place to help the dogs find homes. At the moment, volunteers find their niche: they have a certain type of dogs they enjoy working with and for dogs with problem behaviours, many of the other volunteers are happy enough to let them walk them. There is always a lot of goodwill but volunteer dog walking behaviours or inexperience can exacerbate the dog’s problems. Dogs who arrive and can walk to heel are allowed to pull or react to other dogs; sometimes volunteers sit with the dogs without realising their dog is fixating on the approach of other dogs and then do nothing until it is too late. Most operate on a “Get ‘em out. Get ‘em walked.” system which allows all the dogs to get out through the week but does not include time for training. There are also volunteers who disagree with positive methods or the use of food without really understanding why they are used: they see food as ‘gâterie’ or spoiling the dog.

Communication is generally good between staff and volunteers regarding the dogs given the constraints of staffing and volunteers. All dogs have a placard to show when they were last walked and volunteers try to walk on a rotation. Some dogs are often ignored because of their appearance and/or behaviour. Smaller, easier dogs are often walked more frequently, which is counter-intuitive. Keeping volunteers apprised of a dog’s behaviour is hard, since there is a high turnover of animals and not enough volunteers to help out. However, a simple card system is in place. A red card means that the dog is a dog subject to BSL or that it is reactive to others or presents a risk to humans. A yellow card is for staff members to let them know that the dog can jump the 2m enclosures and cannot be put in one of the parks, which are all open at the top. A green card means that the animal destroys bedding and cannot have
bedding for health reasons. A warning triangle is used if the dog presents a particular risk or is subject to breed-specific legislation.

That said, a dog can have three cards and a triangle, and some volunteers do not pay enough heed as to what this means. On the whole, volunteers seem to pay attention to the signs and many ask if a dog is okay to walk or ask for clarification on the problem if it is not noted on the file that is pinned to the dog’s enclosure. Some add comments from time to time, which is very helpful although how a dog behaves with one volunteer is sometimes different than their behaviour with another.

Some dogs with more challenging behaviour already have a regular handler, which encourages affiliative behaviour although it can also have costs. Since dogs seek out an attachment figure as a means of coping with stress, this is one way that we can help our shelter dogs adapt.

Given our low number of mandatory euthanasia orders and our policy to protect the life of all animals, we find ourselves in a challenging position, as most no-kill rescues do. Firstly, we must consider the safety of our members of staff, our volunteers, the future families of our dogs and the community at large. Secondly, we must consider the safety of our dogs. That means we must consider the safety of the dogs they may be partnered with as well as the safety of dogs they pass at the shelter.

Generally speaking, most dogs are adopted quickly. We have a high proportion of large, untrained, sometimes uncastrated young, male dogs, and much smaller populations of females, small dogs or elderly dogs. Females are sterilised as a matter of course. There is a high adoption rate for small dogs and females. On any given day, a large number of our dogs will be hunt dogs of one variety or another and a significant number are labrador types.
A very small number of dogs with complex behaviours arrive either by the pound, through surrender, through municipal order, through seizure by law enforcement officers or returned to the shelter. These dogs are usually not advertised on our website and are only available for adoption in certain circumstances to experienced homes who are happy to submit to home visits and are expected to work in continued partnership with the shelter. The vast majority of our dogs go on to good homes and present few behavioural problems that owners feel unable to cope with. For the large part, they are sociable, friendly dogs who go on to make good companions. Returns of these dogs are rare, and when returns happen, it is largely through changing circumstances for the owner, or lacking resources to be able to manage problem behaviours emerging through owner absence such as destruction, barking or escaping.

Given the high energy levels and general stress of the shelter, the overwhelming majority of dogs settle and tolerate their time here, showing little stress on return visits. They have healthy relationships with the staff and volunteers, are well-fed on a specialist shelter dog dry biscuit diet, are vaccinated and cared for medically, and they benefit from walks, grooming and petting sessions. They have good nutrition, clean water, regular veterinary care and an indoor sleeping space. The shelter is lacking in sufficient volunteers for exercise, petting, grooming and play, and in sufficient funding for heating. We cannot control the amount of sleep dogs get or the quality of it, although the shelter is largely quiet at night. Some of their emotional and social needs can be met through our staff and volunteers, and a number of our dogs benefit from the time they pass daily with the humans in their life. They have companionship from other dogs on the whole, and for many of our dogs, being paired up with another dog at least gives them canine company.
Appendix 2

‘Chien Mordeur’, the law and your dog in France

Dogs who bite fall under regulations from the DDPP (sometimes DDCSPP) a local government agency in each of France’s departments. The regulations apply to any dog who has bitten regardless of breed. The protocol established at a national level is partly to ensure that dogs are assessed as to their behaviour in society and their potential risk to humans or other animals. It is also partly to ensure that rabies is not transmitted via a bite.

All ‘dangerous’ breeds are subject to breed-specific legislation. This mainly concerns rottweilers or American Staffordshire terriers and their crosses. These dogs, as well as dogs who have bitten, are required to have a behavioural test which may be required to be repeated within a given time frame. A small number of named vets in each department are allowed to conduct the behavioural test. A copy of the behavioural test goes to the local town hall and is sent by the vet. Owners of ‘category’ breeds are required to undertake a mandatory 7-hour training course delivered by a small number of local dog trainers. This may also be true for dogs who have bitten. The training may also be required for handlers of dogs who are used in a professional role.

What happens when a dog has bitten is largely dependent on the report written by the vet. In most cases, there will be two vets involved. One places the dog under a 15-day visit cycle to ensure that the dog does not present with rabies. These visits are physical only and take place on day 1, day 7 and day 15. Unless special dispensation is received from the DDPP, vets cannot euthanise a dog who has bitten before 15 days has been served. This period is part of the protocole mordeur system. Any vet can take the necessary samples and complete the
associated paperwork. The second vet (who may sometimes be part of the same practice) conducts a behavioural test. They can only do so if they are licenced by the local authorities to do so. Local authorities such as town halls must keep an up-to-date copy of the list of these vets. An owner can choose the vet to whom they will take their dog, and should do so wisely: the vets on the list do not have the same understanding of canine behaviour (one on our local list, for instance, is an exclusively equine vet, who tried to bundle a lost 50kg doberman into the back of a car and couldn’t understand why he was bitten in doing so). Some will insist on doing the test in a neutral place so that the dog is not overwhelmed by the experience. As with all evaluations, much depends on the skill and sympathies of the vet conducting the test. None of the vets on the list in our local area are veterinary behaviourists.

The vet must classify the dog on a scale of 1-4.

Level 1: the dog presents no particular risk beyond those characteristic for a canine.
Level 2: the dog presents a small risk to certain people or in particular situations.
Level 3: the dog presents a critical risk to certain people or in particular situations.
Level 4: the dog presents a heightened risk to certain people or in particular situations.

According to the level, the vet may issue guidance. Also, according to the level, there must be a follow-up evaluation. For a dog judged to be level 4, the vet will usually recommend euthanasia. This is why it is vital to have a vet who understands canine behaviour.

In all cases, the vet will inform the town hall of the results and issue guidance as to what should happen next. The information is also registered on ICAD, the national database for domestic carnivores so that if the dog changes hands, the information is not lost. All dogs must be identified (either by chip or tattoo) prior to either the health checks or the behaviour
test. Since identification has been an obligation since 1999 for domestic dogs, it provides a route by which an animal’s background and heritage can be traced. This would only be true of dogs registered at birth with details of both parents, however. It offers potential to trace siblings or family patterns as well as tracing back to breeders, but this has as yet been unexplored. In any case, for the majority of dogs who arrive without microchip at our pound and go on to require an evaluation, they are rarely pedigree.

Officials at departmental or local level can insist that owners take care not to allow further bites and can seize the dog if those conditions are not met. This can include taking the dog for a behavioural test, compulsory muzzling, the mandatory 7-hour training course, restrictions on where the dog can be kept or exercised, and to insist that the owner apply for a permit to keep the dog. Failure to do so can mean the dog will be removed. In this case, the dog can be transferred to a suitable kennel. After an 8-day delay, the dog could be destroyed if the owner has not undertaken steps to rectify the situation. The town hall can, on the advice of the vet, order that the dog be destroyed humanely if the dog presents a heightened level of risk.

Since it is extremely unlikely that the dog will present with rabies on mainland France, it is vital that owners choose their vet carefully. There is no bite scale involved in the assessment of a bite, and anything from broken skin in a redirected nip to a death by mauling is all considered to be ‘a bite’. For instance, a well-publicised case of a battered German shepherd who may have knocked his owner over, killing her in the process and certainly took bites out of her legs resulted in the dog being placed in a shelter for rehabilitation and rehoming, whereas a collie who lunged at a passing cyclist and nipped the man’s hand was ordered to be destroyed humanely.
To give an idea of the scale, between 2007-2012, 70 vets in the Ile-de-France region undertook 3369 evaluations, equating to roughly just under two a day across the whole region. 72% of the dogs were pedigree dogs subject to mandatory evaluations (mainly rottweilers and American Staffordshire Terriers) and 15% were non-pedigree ‘types’ also subject to evaluations. 438 dogs were referred for bite behaviour, around 85 a year. Most of the 3369 dogs were assessed as level 1 or 2, and 168 of the 3369 evaluations resulted in an evaluation of critical or heightened risk of dangerous behaviour. (Santévet, 2017) With an estimated canine population of over a million dogs in this region, the number of dogs whose behaviour is critical is very low indeed.

As a shelter, in five years we have had a very small number of dogs with level 4 evaluations. Often these involve underlying health problems such as arthritis, hip dysplasia, thyroid or pancreatic disorders or degenerative movement disorders. One has come in with no underlying medical condition. For medical reasons, it becomes necessary to euthanise a small number of our dogs who present with dangerous behaviours when there is little hopeful prognosis of recovery. For Dog F, who was classified as Level 4, and Dog J, similarly classified, there was little evidence of any underlying medical issue relating to their unpredictable and often violent overreactions to the world in which they lived. As canine psychiatric medicine grows, in time there will be solutions for dogs like Dog F and Dog J. Undoubtedly, their genetic heritage (GSD, Rottweiler and Husky) and sadly their gender may have had something to do with their behaviour, but their life experiences must no doubt have contributed equally.
Appendix 3

Why is this dog behaving in this way? What can be done about it?

**Age**
Consider hormonal factors that may be influencing behaviour e.g. 'coming of age', oestrus, testosterone; also, CCO or possible pain-related behaviours, touch sensitivity.

**Old age:**
- Vet check, medication, foster or palliative care, environment, diet, supplements.
- Youth: Remedial socialisation, Sterilisation (to discuss)

**Life stage**
Consider life stage of dog, including lactation for dogs arriving in the pound without puppies, being on heat, motherhood, possible phantom pregnancy.

**Vet check:**
- Time, sterilisation, medication,
- Sterilisation. Behaviour in opposite-sex home or without other dogs. Remedial socialisation. CCOs.

**Gender**
If surrendered, male aggression more commonly reported. Conspecific aggression: M/M aggression; F/F aggression. Rule out by testing widely with a number of same-sex pairings.

**Neutered?**
If no, see ‘life stage’ for females. For males, consider M/M aggression and possible castration. Also consider for castrated males the impact of castration on four-footed aggression.

**Consider castration for males if fear is not a mitigating factor. Discuss at vet check.**

**Health**
Vet check: rule-out pain-related aggression. Check eyes, ears, teeth, musculature, gait, movement, sensitivity to handling, investigate further if necessary.

**Vet check and medical check:**

**Breed**
Rule out or consider excessive breed tendencies in interactions with dogs and people; consider aspects of the predatory motor sequence when observing behaviours.

**Behaviour modification and directed play aimed at reducing the impact of excessive breed tendencies.**

**Environment**
Consider behaviour when approached in housing area by familiar/unfamiliar people or dogs. Rule out territorial aggression and/or resource guarding behaviour.

**GSSC to approaching humans/dogs. GSSC to territory-entering and greeting, CAT (humans) or BAT.**

**Resources**
Consider behaviour when approached with food or toys by familiar/unfamiliar people or dogs. Rule out resource guarding behaviour.

**Mint! by Jean Donaldson**

**Handling**
Trial with other dogs. Rule out poor socialisation, proximity sensitivity, bullying, play skills deficits, rank obsession and hormonal aggression as well as excessive breed tendencies.

**BAT, GSSC around other dogs, Control Unleashed, flight by Jean Donaldson. Remedial socialisation, Relinquishing as only dog.**

**Conspecifics**
Trial with other dogs. Rule out poor socialisation, proximity sensitivity, bullying, play skills deficits, rank obsession and hormonal aggression as well as excessive breed tendencies.

**Strangers**
Trial with approaches from unfamiliar adults in kennels and out on walks. Include a range of men and women of a variety of ages and body types. Rule out aggression with strangers.

**BAT, GSSC, CAT. Care in home placement, Remedial socialisation with humans.**

** Handlers**
Start with a small number of regular handlers and consider behaviour towards familiar adults. Any further aggressive behaviour to familiar handlers should be referred to a vet.

**Remedial obedience, play, grooming and life skills training with regular handler.**

**Emotions**
With familiar handler, consider arousal levels and fear levels. Explore predatory eot and ability to tolerate frustration. Consider mouthiness, leash-biting and treat snapping.

**Calming protocols, frustration tolerance, greeting, directed play. Control Unleashed. Care in rehoming.**
Bibliography


