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A Descriptive Model of the Offence Process for Animal Abusers: Evidence from a

Community Sample

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Abstract

Animal abuse perpetrated by adults is prevalent, yet largely undetected and understudied. As a result, clinicians have a limited evidence base to draw from when working with animal abusers. The primary aim of this study was to develop the first descriptive model of the offence process for animal abusers using a community sample. Participants were recruited via *Prolific Academic* – an online crowdsourcing platform that enables cost-effective recruitment of diverse participant pools from the UK. We identified 198 animal abusers in our survey and administered a series of open-ended qualitative items asking participants to describe the circumstances leading up, during, and after the offence. Employing Strauss and Corbin's (1990) grounded theory analysis, we coded the qualitative responses and developed the offence process model. The model detailed the cognitive, behavioral, affective, and contextual factors across the timespan of the animal abuse behavior (i.e., background, preoffence, offence, and post-offence). This descriptive model of the offence process for animal abusers highlights key targets throughout the timespan that can inform prevention and intervention strategies moving forward.

Keywords: violence against animal, animal abuse, offence process model, offending behavior

A Descriptive Model of the Offence Process for Animal Abusers: Evidence from a Community Sample

Animal abuse is a complex offending behavior that is difficult to investigate, and thus, under-reported. The animals are *voiceless victims*, with very few having someone to advocate on their behalf. Therefore, both the pervasiveness and seriousness of this crime is unclear and what is understood about animal abuse has mostly been derived from the broader interpersonal violence literature (i.e., domestic violence, child maltreatment; Alleyne & Parfitt, 2019). This literature has largely come from the stance that animal abuse is cause for concern because it typically escalates to human-directed violence (Beirne, 2004; Merz-Perez, Heide & Silverman, 2001; Wright & Hensley, 2003). Consequently, the existing research on animal abuse has been primarily concerned with the consequences animal abuse has for humans, and although we agree that this (potential) causal relationship is worth investigating, we argue that existing research has neglected examining animal abuse as an offence in its own right. Therefore, the purpose of this current study is to develop the first ever offence process for animal abuse derived from the self-reports collected from members of the general public detailing background, pre-offence, offence, and post-offence characteristics.

As mentioned above, past research into *why* animal abuse occurs can be found predominantly within the context of domestic violence. Research has continually shown that animal abuse is a strong indicator of family violence (DeGue & DiLillo, 2008; Volant, Johnson, Gullone & Coleman, 2008). Specifically, research has found women seeking refuge from domestic violence are on average 11 times more likely to have reported that their partner also abused animals within the home (Ascione et al., 2007). Animal abuse perpetration appears to co-occur with domestic abuse due to the animal being perceived as an accessible object which can be used to inflict psychological and physical terror on the human victim (i.e., the partner; Beirne, 2004). In Ascione et al.'s (2007) study, female victims of domestic violence described having an emotional bond with their pet and it was this attachment and concern for their pet's wellbeing which acted as a barrier to seeking help sooner, suggesting the perpetrator typically uses the animal as an instrument to control, coerce and/or manipulate the victim (Alleyne & Parfitt, 2017).

It appears there is no shortage of agreement that animal abuse frequently occurs with domestic violence and the presence of one may be likely to signify the presence of the other. Yet these findings do not clarify *how* animal abuse is initiated and what causes some individuals to target animal victims as opposed to human victims. In other words, we are limited in our understanding of (1) the offence chain that leads to animal abuse in this context of displaced aggression and other contexts, and (2) the motivations and processes of animal abuse.

Motivations to Abuse Animals

There have been some studies examining the underlying motivations of animal abuse. For example, Kellert and Felthous (1985) developed a classification of motivations from interviews with incarcerated offenders. These include: (1) to control the animal; (2) retaliate against an animal; (3) satisfy prejudice against a species; (4) express aggression through the animal; (5) enhance one's own aggressiveness; (6) shock people for amusement; (7) retaliate against a person; (8) displace hostility from a person to an animal; and (9) to act out nonspecific sadism. We also know from the intimate partner violence context that animal abusers engage in this behavior in order to: (1) demonstrate power; (2) teach submission; (3) isolate the victim from a support network; (4) express rage at something the victim has done; (5) perpetuate the context of terror; (6) prevent the victim from leaving; (7) punish and terrorize; (8) force or coerce the victim to also engage in the animal abuse; and (9) confirm/reaffirm their power over the victim (Adams, 1995). From these classifications we can see varying motivations, which coincide with Shapiro and Henderson's (2016) argument that, as with all forms of violence, there are many ways in which animal abuse can occur. Combined, these findings demonstrate that the reasons as to why perpetrators target their abuse towards animals are diverse, complex and require further study (Hensley & Tallichet, 2005).

Offense Process Models

Although we know of some of the core motivations to abuse animals, little is known about the entire offence process, including the perpetrator's thoughts and feelings leading up, during, and after the offence, and the situational/contextual factors that may have facilitated the behavior. Models of offence process are novel bottom-up approaches that aid treatment provision (Gannon et al., 2008; Polaschek et al., 2001). They are derived from qualitative accounts of specific offences that provide a detailed understanding of the cognitive, affective, behavioral, and contextual processes facilitating the offending behaviour. Currently, no model exists which accounts for the offence process of animal abuse; yet these models exist for a wide array of other serious offenses, including child molestation (Ward, Louden, Hudson & Marshall, 1995), sexual offenders (Gannon, Rose & Ward, 2008), and firesetters (Barnoux, Gannon, & Ó Ciardha, 2014), to name a few.

These types of offence process models are derived directly from the personal accounts of the offenders themselves. It is from these accounts we are able to explore how an offence unfolds, its heterogeneity, the distal and proximal factors, and the post-offence strategies (e.g., coping, avoid detection, etc.), but currently, the animal abuse literature is lacking in this level of detail (Agnew, 1998; Merz-Perez, Heide & Silverman, 2001). Suggestions have been made as to what is essential to develop a successful model of animal abuse offences; for example, animal abuse should be made intelligible by unpacking the abuser's reasoning, logic and decisions that informed the offence (Overton, 2011). Furthermore, it is imperative to build the offence process directly from the offender's perspective to understand, from their personal view, how the offence unfolded. The individual accounts from each perpetrator aid

the development of a sequential process of animal abuse offences. This grounded theory analysis is a novel approach to theory formulation, and as a result, is often neglected due to it being formally considered as 'unscientific', as it relies on the self-reports of offenders' retrospective accounts (Bennett & Wright, 1985). Nonetheless, this approach achieves two objectives: paying detailed and explicit focus to the offender perspective, and centring the research on 'why' the offence was committed (Beauregard, Rossmo & Proulx, 2007). As a result, the detail provided by the offenders themselves can help to piece together the parts of the offence which otherwise would have been overlooked, and the purpose of these models is to support treatment/rehabilitation provision, so the offenders' thoughts and feelings are paramount to treatment efficacy. Therefore, grounded theory analysis results in the formulation of accessible and practical theories of offending behavior (Ward & Hudson, 1998).

Current study

Since the conviction rates for animal abuse are so low (for example, in the UK approximately 1.5% of investigations result in conviction; Royal Society for the Prevention of Cruelty to Animals, 2015), it can be argued that many perpetrators go undetected and are rarely apprehended. It is from this stance that Miller and Knutson (1997) argued for more research involving samples recruited from the general public (i.e., "natural collectivities") in order to better capture the nature, scope, and prevalence of this offending behavior. As such, the aim of the current study is to develop the first ever model of offence process for animal abuse using the qualitative accounts collected from members of the general public.

Method

Participants

A sample of 497 participants were recruited via the online platform 'Prolific Academic'; a website designed to administer online studies to the general public. In total, there were 362 females (73%) and 132 males (27%) with a mean age of 34.90 (SD = 10.51, range 18 to 70). Participants were predominantly White-UK/Irish (85%, n = 423) and regarding their current employment status, the majority were employed (69%, n = 342).

Measures

Demographic Data

Participants were asked to provide their gender, age, ethnicity, highest level of education and current employment status.

Aggression Towards Animals Scale (ATAS)

The Aggression Towards Animals Scale (ATAS; Gupta & Beach, 2001) is a measure comprised of 19 items which assess animal abuse perpetration since the age of 18. The scale begins by asking "Since the age of 18, how many times have you deliberately/intentionally" which is then followed by the series of items, each which state an act of aggression committed towards non-human animals. Items included "Given an animal a visible injury", "Pushed, shoved or grabbed an animal" and "Hit an animal with an object that could hurt it". Participants respond using a 7-point Likert scale (i.e., never, once, twice, 3-5 times, 6-10 times, 11-20 times and more than 20 times) depending on how frequently they have perpetrated each act of abuse. Due to this study focusing solely on active/physical abuse, three items were removed which did not explicitly involve abuse of a physical nature, examples of omitted items include; "Yelled at an animal", "Intentionally intimidated an animal" and "Deprived an animal of food, water or medical care."

To distinguish animal abusers from non-abusers, we dichotomised the data whereby the participants who reported having abused an animal two or more times were classed as the animal abusers (n=198). With a possible response range from 16-112, participants who scored 18 and above were classified as animal abusers. Whereas the non-abusers (n=299) were those who scored 17 or less. Gupta (2003) has shown this scale to have high internal consistency with a Cronbach's alpha of .86; and for the current study, the scale used had a Cronbach's alpha of .63, showing lower than desired but adequate level of internal consistency.

Procedure

First, this study received ethical approval from the University's Ethics Committee, then we administered the questionnaires online to the general public using Prolific Academic. Prolific Academic – an online crowdsourcing platform – enabled us to recruit and pay our participants efficiently with their built in payment system. Participants were provided with an information sheet which explained the purpose of the study. The study was described as an examination of human-animal relationships in adults in broad terms, but that there would be questions that might ask them about animal abuse/cruelty specifically. Participants further read that their participation was voluntary, their responses would be anonymized, and they had the right to withdraw any time during the study. If participants were interested in participating after reading the information sheet, they were asked to indicate their consent by ticking the appropriate boxes. To ensure anonymity but also retain their ability to withdraw from the study, participants were then instructed to enter their unique identifier from the Prolific Academic website and to use this identifier in any future correspondence about their participation in the study.

The questionnaire began by asking participants to provide demographic information, including their gender, age, ethnicity, highest level of education and current employment status. Next, all participants were asked to complete the Aggression Towards Animals Scale to assess whether they had perpetrated animal abuse during their adulthood (i.e., since the age of 18). If a participant indicated two or more acts of animal abuse, they were provided with a set of qualitative questions which asked about the animal abuse in more detail. Questions here included: (1) describing in detail the most harmful behavior they have intentionally done

towards an animal since the age of 18; (2) what type of animal was involved; we asked them to describe what their life was like both (3) during the month before the incident and (4) on the day of the incident; we asked them to describe the emotions they felt (5) prior, (6) during and (7) after the incident; we also asked them (8) to describe what their immediate thoughts were following the incident; and finally, (9) what did they do following the incident (i.e., take the animal to a veterinary surgery).

Upon completion of the questionnaire, participants were directed to the debrief sheet which reiterated the study's aim, presented again their right to withdraw, and provided them with both the researcher's contact details and support helplines if they experienced any distress from participating in the study.

Results

Data Analysis Procedure

Strauss and Corbin's (1990) grounded theory analysis was used to analyse each participant's account of animal abuse. The first stage of grounded theory analysis is *open coding* which consists of examining each answer, line by line, to code relevant responses. Here, the first author worked through all of the qualitative answers, question by question, for each participant. Every answer was coded into *meaningful units*, codes included words or sections which were regarded as significant, repeated multiple times or deemed important to the participant and so on.

Next, provisional categories were created using *axial coding*. Within this second stage, the abovementioned codes, or meaningful units, were abstracted into categories based on some form of conceptual similarity that they shared with other codes. However, if the code did not fit any of the existing categories, a new category was created. This process continued until *theoretical saturation* was reached, meaning no new codes were developed into new categories. Each category was then assigned a descriptive label that best defined the

content of the codes within that particular group; these were then classed as the superordinate categories.

The final process, termed *selective coding*, comprised of integrating the superordinate categories into a temporal process. This stage involved describing the connections or hierarchical relationships between the superordinate and subordinate categories until a temporal sequence was developed which illustrated the overall sequential process of an animal abuse offence. This final stage also involved repeatedly checking back through the categories as the temporal sequence developed which resulted in further removal, adding, or refinement of categories where necessary; this ensured the model reflected closely the accounts of animal abuse as described by the participants. The final model comprised of 13 categories and 40 sub-categories.

The Descriptive Model

The final model (see Figures 1 and 2) outlines the temporal sequence of animal abuse offences, including the contextual, behavioral, cognitive and affective elements. For clarity, the model is divided into four main parts: (a) Background, (b) Pre-Offence, (c) Offence and (d) Post-Offence.

Phase 1: Background

The first category of the model, *background factors*, refers to the perpetrator's lifestyle during the month before the incident. This includes their employment, relationship status, presence/absence of stressors, or any other significant factors/experiences. These factors were categorized into *positive* and *negative*, whereby the valence indicated the type of impact these background factors were having on both the offender's perceived social and affective state. Characteristic examples of positive background factors included: stable employment, happy romantic relationship, and/or no significant stressors; whereas, examples of negative background factors included: employment stress, negative life changes (e.g.,

relationship breakdown, financial strain, bereavement), low self-esteem, and/or physical and mental health issues.

The next category, *coping style*, is how the perpetrator was managing any significant problems that they were experiencing during the month before the incident. Their coping style was typically either *avoidance*-based or *approach*-based. Avoidance-based management meant that when problems arose, the individual typically dealt with them in a maladaptive manner; for example, through substance abuse (drugs and/or alcohol), repressing emotions, withdrawal, or other strategies to avoid the issue. In contrast, some individuals dealt with problems in an approach-based manner, meaning they addressed the issue effectively. Approach-based coping included seeking therapy or medication, actively change the situation that is affecting them (e.g., search for a new job), or focusing on engaging in activities that facilitate, for example, mindfulness techniques (i.e., feeding birds).

Phase 2: Pre-Offence

The second phase in the model, *pre-offence*, refers to any actions and events that occurred on the day of the incident. This phase begins with *proximal circumstances* which refers to what occurred on the day of the incident, including any activities the individual was engaging in and if anything of significance occurred (for example concerning their work, romantic relationship, etc.). There were four sub-categories of proximal circumstances: *intoxicated, distressed, bored,* and *pre-occupied.* These sub-categories characterize the overall experience of the day of the animal abuse incident participants were describing. Some participants indicated that they had been drinking alcohol on the day of the incident (i.e., reporting a general experience of intoxication). Other participants reported that they had felt distressed on the day. Examples of stressors included: working longer hours than normal, experiencing mental health issues, interpersonal conflicts (e.g., arguments), physical exhaustion, family bereavement, and general annoyances such as losing at a game or missing

the bus. There were reports of feeling bored, which was characterized as feelings of loneliness, uninterested, or meddlesome-like. Lastly the sub-category of pre-occupied refers to the perpetrator being either mentally or physically busy on the day of the incident. Mental pre-occupation included ruminating or feeling overwhelmed; whereas, physical preoccupation was characterized as, for example, studying, housework, or childcare.

Given the proximal state of participants, it appeared they were susceptible to provocations that directly triggered the animal abuse incident. These provocations were classified into the following three categories: hostile attributions, perceived threat, or disobedience. There were times that the animal victim's behavior was misperceived as behaving in a hostile manner towards the animal abuser, when there was no clear justification for such an evaluation. The participants, on reflection, reported that the animal's actions meant no intentional harm (e.g., the animal jumped up with the aim of gaining comfort), and oftentimes the participants reported that they were most likely using the animal as an outlet for their own aggression (e.g., participant was in a bad mood from prior experience). The second category, threat, referred to the feeling of intimidation or that the animal would cause physical harm to the participant. For example, there were times when the animal was known to be irritable and unpredictable, thus the person felt apprehensive towards the animal. The third category, disobedience, can be described as instances where the animal ignored the participant's commands and/or intentionally misbehaved. Examples include: damaging property, eating food not intended for them, making continuous noise, or excreting in the house.

Once the provocation or high-risk situation had occurred, it typically evoked an emotional response within the participant, referred to as *proximal affect*. The two dominant emotions that arose from the provocations were either *neutral* or *negative*. Participants who experienced neutral emotions reported feeling indifferent about the animal's behavior.

However, we found that we could further categorize participants' negative emotions into feelings of *anger, stress,* or *depressed*.

The final part of the pre-offense phase was *goal formation*, which is the process of identifying/developing the perceived end result for perpetrating the animal abuse. Three goals emerged from the participants' reports. Participants indicated that they had intended to: *dominate, punish* and *express negative emotions*. Participants who intended to dominate the animal were seeking to overpower and/or control the animal (i.e., using the abuse as a form of training or to scare the animal). Punishment was the goal established by those wanting to harm the animal for their perceived wrongdoing. Finally, some participants were aiming to express negative emotions (typically the consequence of negative proximal affect) that would otherwise build up towards other negative outcomes.

Phase 3: Offence

The *Offence* part of the model referred specifically to the behavioral, cognitive and affective aspects that occurred during the animal abuse. The *animal maltreatment* in participants' reports was typically characterized as physical abuse towards the animal. There was a range of abuse behaviors including: hitting, pushing, pulling, dragging, throwing, restraining, and killing the targeted animal. The types of animals that were victims of the abuse were predominantly companion animals (i.e., dogs, cats, rabbits), and to a lesser extent, farm animals (i.e., cows, horses). During the abuse, perpetrators also reported experiencing an affective response, referred to in this model as *pre-evaluative affective response*. The following affective responses were typically elicited during the incident itself: *sadism* (amusement, elatedness, relief), *anger* (annoyed, irritable, agitated), *fear* (scared, anxious, defensive), or *guilt* (despair, disappointed, repulsed).

At this stage, immediately following the act of abuse, perpetrators reported evaluating their actions. This category, *evaluation of goal achievement*, accounts for the perpetrator's

immediate cognitive response (thoughts) following the incident (i.e., if they believed they had achieved their intended goal from the abuse). As can be seen from the model, all perpetrators felt as though they either had achieved their goal (*yes*) or had not (*no*). It was this evaluation of their goals which led the perpetrator to experience one of two *post-evaluative affective responses*: *satisfied* – the perpetrator evaluated that their goal had been achieved, and thus, felt positively about their actions; *dissatisfied* – the perpetrator believed their goals were unfulfilled by the abuse and therefore felt negatively about the outcome of the abuse. For those who reported feeling dissatisfied, there were some further reports of abuse arguably to compensate for the lack of success with the first attempt.

Phase 4: Post-Offense

The post-offense period begins with *victim management*, which is an account of the perpetrator's behavior following the incident. From the participants' self-reports, three subcategories emerged. *Positive* victim management involved active and adaptive forms of caring for the animal victim. Examples of positive victim management included seeking veterinary care and/or caring/comforting the animal themselves. *Negative* victim management, another form of active management, referred to the participant employing inappropriate, maladaptive behavioral strategies, such as locking the animal away. *Passive* victim management included reports of no immediate attempts to care for or manage the injuries of the victim. Passive victim management was also coupled with participants' reports of either dismissing or minimizing the severity of the injuries (e.g., "the animal was only emotionally affected").

The next part of this phase is *making sense of the offence* whereby the participants would think about the incident for an extended period after it had occurred. This phase was further classified into three types. Individuals either ruminated about (1) themselves (*self*), which involved reflecting on their own actions during the incident; (2) the *situation*, which

consisted of thinking about how the incident could have been avoided or, for example, asking themselves "what if"; or (3) *others*, whereby the perpetrator ruminated over the animal, other people who may have been involved, and the extent of others' involvement (e.g., displacement of responsibility).

Rumination then led on to *post-offence realization*. In this stage of the model, participants began to realize the consequences of their actions and the extent of the harm caused. This realization then evoked three responses whereby the individual either blamed themselves for the incident (*self-blame*), experienced feelings of guilt (*guilt*), or responded with feelings of anger (*anger*). Oftentimes participants responded with both self-blame and feelings of guilt.

These post-offence realizations each led to their own *concluding response*, which consisted of longer term cognitive (re)appraisals of the abuse. Self-blame typically led to *shame*, whereby the participant reflected on the harm to the animal and experienced feelings of distress from negative evaluations of the self. Guilt typically resulted in the participants' attempts to *justify* the abuse. Examples included: "it was necessary," or "it was only mild harm." Finally, anger often led to *attribution of the blame*, which the participant contemplated the external factors related to the incident, and this typically resulted in blaming others involved or the animal itself; furthermore, this commonly reinforced their anger.

Discussion

Using self-reports from members of the general public, this study has developed the first offence process model for animal abuse. The final model consisted of 13 categories that, when combined, describe the facilitative roles of behavioral, cognitive, affective and contextual factors in the perpetration of animal abuse. To produce this model, grounded theory analysis was used. This approach enabled us to: analyze each perpetrator's personal narratives of their offence process, and develop a detailed yet succinct model of the process

underlying animal abuse. This study produced, to our knowledge, the first offence process model of animal abuse and as a result, it has highlighted several novel features of animal abuse perpetration, of which the most notable aspects will be discussed before considering the model's theoretical and practical implications.

One prominent focus within the model is the negative circumstances which accompanied the incident of abuse. These included: the events on the day, how the perpetrator (mis)perceived the animal's behavior, and the emotions experienced as a result of these perceptions. This aspect of the model also suggests that very little planning occurs prior to the animal abuse, and this lends empirical support to the frustration-aggression hypothesis (Dollard, Miller, Doob Mowrer, & Sears, 1939) within this context. This theory argues that many factors that elicit physical or psychological discomfort will cause frustration, and further, a propensity to act out aggressively (Berkowitz, 1989). When applied to animal abuse, this theory offers a framework to interpret and understand what is happening in the pre-offence phase within this model. For example, there appears to be an escalation (or at minimum, a maintenance) of negative perceptions and emotions experienced by the participant. That is, the negative state (i.e., proximal circumstances), perceived provocations of the animal, and the negative affective responses felt by the participants may have a cumulative effect resulting in frustration, and this inherently results in aggressive behavior towards the perceived provocateur (i.e., the animal). In some of the cases within this model, the frustration arose directly from the interaction with the animal itself (i.e., the animal appeared threatening or actively disobedient), which then instigated the formation of goals to control or punish the animal. However, for others, their initial frustration appeared to arise from a situation independent of their interaction with the animal (e.g., had a bad day at work), and this resulted in the participant misperceiving the animal's behavior as being hostile resulting in their displaced aggression. Regardless of which situation produced the

participant's frustration, this model does provide evidence for apparent self-regulatory deficits in the production of animal abuse behavior. This application of the frustration-aggression hypothesis (Dollard et al., 1939) within an animal abuse context also highlights specific practical implications. That is, there appears to be a strong link between the participants' management of negative affective states and their aggressive behavior towards animals. So it might be beneficial for treatment of animal abusers to focus (at least, in part) on effective emotion management strategies. In other words, the findings of this study suggests that targeting the management of *frustration* might reap the most treatment gains.

A second notable feature of the model is the difference between the participants who felt remorse for the animal abuse versus those who did not. There were noticeably more participants who self-reported feelings of guilt and self-blame following the incident, and thus, made clear attempts to care for the animal. On the other hand, there were fewer participants who self-reported sadistic tendencies, yet this discrepancy is not typically captured by existing theories. According to the more common theories concerning animal abuse, acts of animal abuse are frequently regarded as rehearsal for future violence towards humans (Wright & Hensley, 2003). As such, animal abuse perpetration is typically seen to indicate the development of an aggressive and impulsive personality (Mead, 1964). This theoretical view, referred to as the violence graduation hypothesis (Arluke, Levin, Luke & Ascione, 1999), along with much of the existing animal abuse literature, does not appear to consider the individuals who perpetrate animal abuse but yet feel remorseful and regretful once doing so; suggesting (1) there may be animal abusers who do exhibit empathic qualities towards animals (perhaps the "one and done" animal abusers), and (2) there are typologies of adult animal abusers that require further exploration. The animal abusers who initially reported more sadistic-like emotional responses during the incident, also self-reported less feelings of guilt following the abuse, and were likely to justify their behavior or blame others. Theoretically speaking, it could be argued that this is the "type" of animal abuser that is more likely to escalate to human-directed violence.

What is interesting about this type of abuser (i.e., sadistic) is that they exhibited similarities to other offenders, whereby those who felt anger as opposed to guilt and who attributed blame elsewhere, also tended to ruminate about others involved in the incident, rather than thinking of themselves or the situation itself (e.g., external locus of control). This form of rumination has also been observed within offenders who have committed interpersonal offences (vanOyen-Witvliet, Knoll, Hinman, & DeYoung, 2010). Rumination involves pervasive and continuous thoughts about an event, one's problems or emotions (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008), and within interpersonal offences, it has been found to increase negative emotions such as anger and decrease prosocial responses such as empathy (Witvliet, Ludwig, & Laan, 2001). This coincides with the current study's findings that the animal abuser's rumination about others who were involved in the incident and/or the victim typically preceded an anger-related response and resulted in attribution of blame; as opposed to the individuals who ruminated more about their own actions and thus, took responsibility and indicated more helpful and caring behavior towards the animal postoffence. It seems possible that the way the animal abuser ruminates about the offence once it has occurred may indicate how likely that person is to escalate to violence. For these individuals, treatment may benefit by incorporating cognitive reappraisal strategies, to encourage alternative thinking of the incident. Cognitive reappraisal has shown to downregulate adverse emotions attached to a negative event or offence; and those who engage in successful reappraisal can overcome feelings of anger and instead feel compassion (vanOyen-Witvliet et al., 2010).

A final noteworthy feature of the model is the significant disproportion between the perceived provocation from the animal and the participants' behavioral response (i.e., animal

abuse). We found that many of the triggers or provocations which appeared to instigate the abuse (specifically when the animal's behavior was wrongly perceived as hostile or if the animal was disobedient), were rather minor and undeserving of such an aggressive response of physical abuse. Examples of commonly reported provocations included: "constantly barking", "ripped up my favourite pair of shoes", "ate my food", or "it was getting in the way". For many of the participants in this study, physical abuse was a first response, rather than being a last resort. Research within the animal abuse literature, particularly on empathy, may explain why it appears that within this model, minor provocations from an animal can result in extensive physical harm directed towards that animal. Empathy involves both a cognitive and affective aspect whereby it allows a person to both understand and share others' perspectives and emotions (Mehrabian & Epstein, 1972); as such, it is unsurprising that empathizing with an animal is much more challenging than it is to feel empathy towards a human. This may explain why abusing an animal is easier than abusing another human, due to the ignorance of the animal's suffering. This is further reinforced by research findings that show the differential responding to animal-directed versus human-directed violence whereby people view animal harm as less severe (Roca Fontcuberta & Meléndez Peretó, 2017). Therefore, it can be argued that the disproportionate responding is due to a limited understanding of the harm inflicted.

This is the first offence process model of animal abuse. There are a few potential reasons as to why animal abuse has been overlooked in this regard in the past. Animal abuse is typically viewed as a precursor to other crimes and is therefore, commonly considered a 'stepping stone' for future violence. Consequently, a vast proportion of the literature concerning animal abuse has been conducted with incarcerated samples (Arluke, Levin, Ascione & Luke, 1999; Febres et al., 2014; Hensley & Tallichet, 2005, 2007) whereby it has been discovered, through self-reports (i.e., not their index offence), that the offender has

committed animal abuse in their past. As such, the focus is typically on the offence that they have been convicted for, rather than their prior animal abuse; hence little research has considered animal abuse solely as its own offence and few attempts have been made to uncover how the act of animal abuse itself unfolds. But of particular interest in our study is that the animal victims were predominantly companion animals. When pets are abused, this causes suffering not only to its victims, but also other household members forced to witness or condone it. In simplest terms, animals live as part of a family and are subject to domestic violence alongside intimate partners and children (Allen, Gallagher, & Jones, 2006; Becker & French, 2004; Loring & Bolden-Hines, 2004); thus, a cycle of abuse that sometimes is missed by researchers and practitioners alike.

The current model has also produced several implications for clinical practice. Firstly, we have identified a culmination of internal and external states that seem to predispose someone to engage in animal abuse. Specifically, many of the incidents were preceded by negative events and emotions, followed by specific types of rumination (i.e., ruminating about others), and low levels of empathy towards animals. These predisposing factors could be addressed with forms of treatment that focus on effective emotion regulation strategies (e.g., cognitive reappraisal strategies) and victim empathy (specifically animal-oriented empathy). Likewise, this finding that little empathy is commonly felt towards the animal may provide implications for how animal abuse is regarded. Many perpetrators within this study reported not attending to the animal following the incident as they could see "no physical harm"; again, which may be explained by their difficulties empathizing with non-human animals. This also highlights that animal abusers are ignorant to animals' experiences of emotional abuse, which has been shown to, at times, be more detrimental than physical harm (McMillan, 2003). Finally, within this model, a common goal of the abuse was to control/punish the animal when it disobeyed; suggesting much abuse is used as a form of

training. As such, it can be proposed that simply teaching individuals the correct way of handling or training animals may be an effective way of preventing many incidents of animal abuse perpetrated by members of the general public. Overall, this model has the potential to not only provide an evidence base for clinicians to incorporate in their practice, but to also aid animal abusers themselves in understanding the range of factors that are associated with their animal abuse perpetration.

Having considered the noteworthy strengths of this model, it is important to consider its potential limitations too. The development of this model relied on participants' self-reports of their own offence narratives. Despite this approach allowing us to gather detailed narratives of the offence from the perpetrators themselves, there are also caveats associated with this type of data and the use of grounded theory analysis. Firstly, the perpetrators are providing retrospective accounts of the animal abuse, which are susceptible to memory distortions and degradations. Participants were asked to describe an animal abuse incident that they perpetrated since the age of 18. This, coupled with the age range of our participants (ie., 18-70 years of age) and that we do not ask them when the incident occurred, adds variability in length of time of recall that we do not have the data to measure, so some descriptions would have been even more susceptible than others. A second concern of relying on self-reports is the likelihood of socially desirable responding, whereby participants seek to give the impression that they are more moral than their behavior would suggest (Lönnqvist, Irlenbusch, & Walkowitz, 2014). This social desirability is likely to be even more salient within this study, due to its focus on animal abuse offences. Despite this, strategies were employed to reduce the likelihood of social desirability including the anonymity of the participants and emphasizing that participation was voluntary.

Our method of data collection (i.e., crowdsourcing) enabled us to recruit a large sample with detailed descriptions of their abuse incidents. However, we must also

acknowledge that our sample was predominantly female. Similar to the broader offending literature, perpetrators of animal abuse are typically male (Alleyne & Parfitt, 2019), so our findings may be more reflective of the experiences of female perpetrators, which are generally quite under-represented in current research.

We would also add that researcher bias is a potential limitation. Grounded theory relies on researchers to conduct their own analysis of the qualitative responses, as such, it is vulnerable to unconscious bias. Future research is needed on the processes of animal abuse offences to further validate and/or evolve this current model.

What our model is lacking is an examination of participants' *vulnerability* factors that would be derived from collecting data on their historical (e.g., childhood) backgrounds; for instance, distal factors. Instead, our study focussed on recent/proximal experiences. Future research would also benefit from in-person interviews so that a more semi-structured schedule of questions can be used to explore and probe areas of interest. This would lead to an even more detailed account of animal abuse. A considerable strength of using grounded theory analysis is its ease and ability for future modification (Gannon, Rose & Ward, 2008), thus acquiring additional data will only advance the current model.

In sum, we have developed the first offence process model of animal abuse. Using narratives from the abusers themselves, a descriptive model of the behavioral, cognitive, affective and contextual factors underlying animal abuse perpetration has been outlined. The implications of some of our findings have clinical and practical utility, but also our study has highlighted areas for future research. Despite much room for developing the current model in the future, it already fills a substantial gap within the animal abuse literature.

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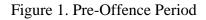
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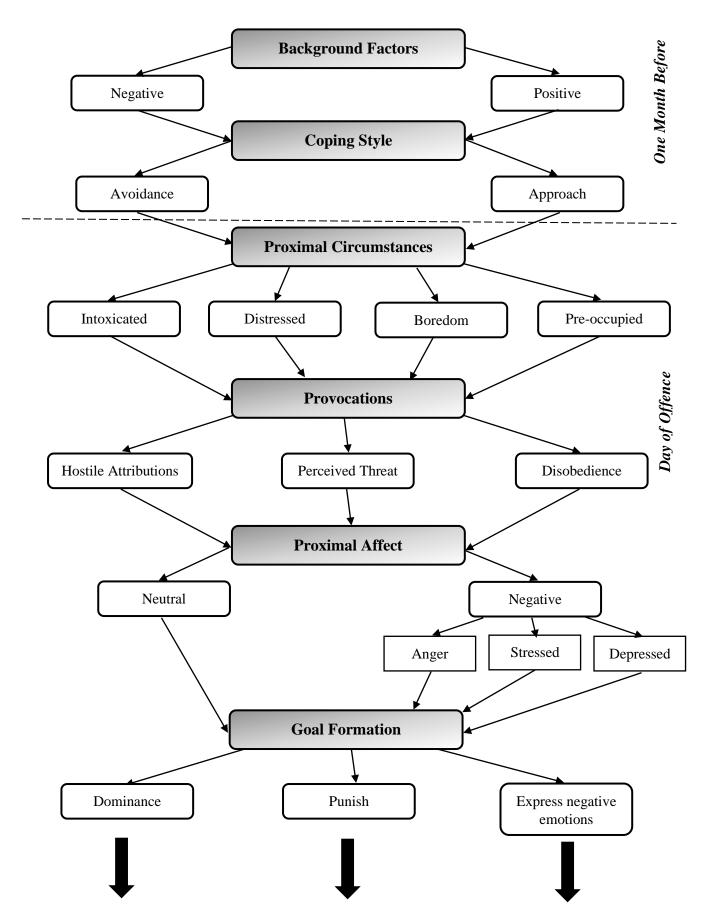
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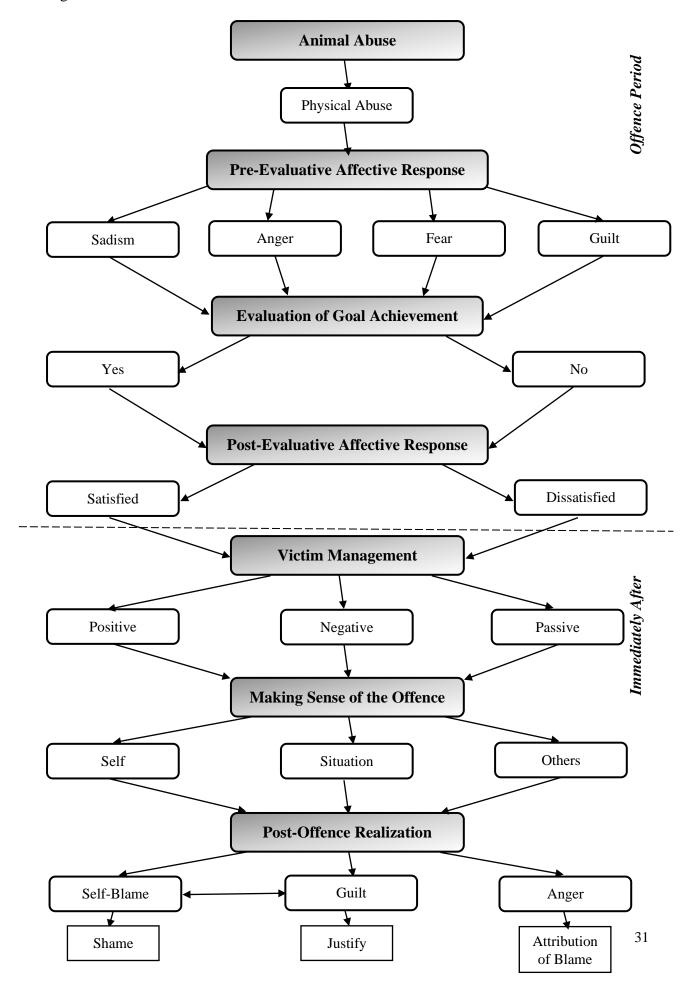


Figure 2. Offence and Post-Offence Period