

# Factors that Influence Personal Perceptions and Reactions to Animal Cruelty

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**Abstract.** People's perceptions on animal welfare issues like animal emotions and rights and human-animal interactions appeared as a subject of our scientific interest with the aim to investigate the public awareness on animal cruelty. An anonymous written questionnaire was distributed among respondents with different demographics throughout Bulgaria. Results showed that female respondents (57.66%) strongly agreed on the ability of animals to experience feelings ( $P = 0.000$ ), with significant differences for the respondents aged 19–24 and those who strongly agreed on animal rights ( $P = 0.000$ ). Public understanding on animal sentience was significantly influenced by the participants' relationship with pets and farm animals and their urban residence ( $P < 0.05$ ).

The study found a positive correlation between the groups of those who strongly agreed on animal rights and those who were fully aware on the nature of animal abuse ( $r = 0.39$ ;  $P < 0.05$ ). The majority of the respondents (42.04%) recognized physical abuse, but emotional and sexual abuse were not well recognized. In order to protect the abused animal, the majority of the participants in the study (45.65%) stated that they would respond with a combination of physical and verbal interaction with the offender and a call to the authorities.

## Introduction

The sensitiveness of the wide public to the animal welfare issues has increased in the last decades as research has provided scientific evidence on animal sentience (Duncan, 2004; Duncan, 2006; Boissy et al., 2007; Sneddon et al., 2014). The understanding of the ability of non-human animals to feel pain and distress (Proctor et al., 2013; Cornish et al., 2018) has led to development and implementation of a comprehensive legislative framework on animal protection which at international level clearly defines the requirements for humane treatment of animals throughout their life-span (breeding, transport, slaughter, experiments, etc.), ensuring that the core “five freedoms” are met. Still, some issues as animal rights and emotions appear to be disputable among people due to their varying attitudes to animals. A range of studies have suggested that personal attitudes towards animals have been shaped by opportunities for human-animal interaction and relationship (Coleman, 2008; Kupsala et al., 2015; Mariti et al., 2018) facilitated by some demographic factors as gender, age, education, occupation, urban or rural background and even nationality (Philips & McCulloch, 2005; Philips et al., 2012; De la Fuente et al., 2017; Cornish et al., 2018; Tamioso et al., 2018).

At the same time, people's perceptions of animal sentience and wellbeing have shaped their understanding on animal maltreatment and abuse. In the scientific literature, animal abuse has been clearly defined into four main types (Rowan, 2006; Munro & Munro, 2008; Mogbo et al., 2013) with a direct connection with interpersonal violence and antisocial behavior (Madfis & Arluke, 2014; Vinas et al., 2018; Hoffer et al., 2018a, 2018b; Richard & Reese, 2019). However, the legislation on animal protection differs among the countries (Sankoff & White, 2009; Shaffner, 2011; Takacova et al., 2013; Balajty et al., 2018) as in some states acts of animal cruelty are not subject to mandatory reporting (Alleyne et al., 2019), although liability towards all acts perceived as animal abuse is legally determined (Babcock & Neihsl, 2006; Lamparello & Boyd, 2013; Solarova, 2019; Kirov et al., 2019). Scholars have argued that animal-care providers and especially professionals like veterinarians have the duty to promote positive animal welfare and try to prevent acts of animal cruelty (Morris, 2010; Lachance, 2016; Englar, 2018; Joo et al., 2020). When the wider public is considered it becomes clear that the individual intention to intervention in controversial abusive situations is influenced by a number of factors as gender, age, occupation, personal interaction with animals, etc. (Arkow, 2015; Ostovic et al., 2016; Mikuš et al., 2020). Meanwhile, people's reaction could vary from emotional disturbance to reporting to the authorities or physical and verbal response to protect the animal victim (Sienauskaite, 2017; Scott-Park, 2019; Pręgoski & Cieślík, 2020).

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### Objective

The objective of this study was to investigate people's perceptions on animal welfare issues like animal emotions and animal rights with emphasis on their understanding on cruelty acts towards animals. The study hypothesized that public perceptions on animal abuse varied significantly due to a complex of heterogeneous characteristics, thus predisposing people's reactions to violent behaviour directed to non-human animals.

### Materials and methods

The study was carried out under the form of an anonymous written questionnaire among veterinary students at Trakia University, Stara Zagora, and other respondents throughout Bulgaria (n = 333 in total) in the period of March 2019 throughout May 2019. At the beginning of the course in forensic veterinary medicine in the fifth year, veterinary students were asked for their willingness to participate in the survey and those with a positive answer were given five paper questionnaires each. One questionnaire had to be filled in personally. The rest four questionnaires per student were given for distribution among their relatives and friends; thus, respondents with different demographics were included in the survey. Before completing the questionnaire, the respondents were informed in written (a top paragraph of the questionnaire) about the aim of the study, anonymity, and that participation in this study was voluntary. This study did not need ethics approval.

The questions were distributed in several sections. Briefly, the first section (questions 1–7) contained questions on the participant's demographic data, such as age, gender, residence (capital city, city-administrative centre, small town, village), occupation, education, previous experience with pet animals and with farm animals. The second section (questions 8–11) focused on the perception of the respondents about the ability of animals to experience emotions and pain, as well as on the participants' position regarding animal rights, knowledge on animal abuse, opinion on the public attention to animal welfare and protection seen as too excessive. The five-grade Likert scale was used for answering the questions from this section (ranged as strongly agree, agree, neither agree nor disagree, disagree, strongly disagree).

The third section (questions 12–13) contained statements and open-ended questions that aimed at determining the participants' awareness on acts related to animal cruelty and their personal reaction in animal cruelty situation.

All results from the questionnaires returned to the authors were coded with numerical values and each text answer was given a number (presented on the legend of the survey). Thus, long statements were converted for easier data analysis. After coding, the data were statistically processed (Statistica v. 7 software, StatSoft, Inc.). The Kolmogorov-Smirnov test

was used for verification of the normality of data distribution. The study parameters were analyzed through descriptive statistics (frequency distribution tables), correlation analysis (Pearson correlation coefficient) and the Student t test (t test for independent samples). P values less than 0.05 were considered statistically significant. The results afterwards were presented on diagrams (Excel, Windows 10).

### Results

The demographic characteristics of the participants in the survey varied in age, education, occupation and residence (Table 1). The data showed that most of the respondents were women (57.66%), aged 19–24 (63.67%), graduated from a high school (77.48%) and studying for their university degree (72.07%). The majority of the respondents were from urban residence, including the capital city and administrative cities throughout the country (89.79% in total), while only 10.21% of them came from rural settings.

It appeared that the demographic profile of the participants influenced their attitudes towards animal welfare and protection issues as the Student t test found significant differences in favour of the women and

Table 1. Demographic characteristics\* of the respondents' profiles

Respondents' Demographics	Count	Percentage
Gender		
Male	140	42.04
Female	192	57.66
Age (years)		
≤ 18	5	1.50
19–24	212	63.67
25–29	61	18.32
30–60	44	13.21
61–64	2	0.60
65+	3	0.90
Residence		
Capital city	19	5.70
City–Regional administrative centre	190	57.06
City–Municipal administrative centre	87	26.13
Town	3	0.90
Village	34	10.21
Occupation		
High school student	5	1.50
University student	240	72.07
Employed	5	1.50
Unemployed	77	23.13
Retired	6	1.80
Education		
Primary school	1	0.30
Middle school	5	1.50
High school	258	77.48
Bachelor degree	33	9.91
Master degree	35	10.51
PhD	1	0.30

\*Values may not total 100% for each category because of non-responder and rounding of values.

those who strongly agreed on the ability of animals to experience feelings ( $t[332] = 8.054, P = 0.000$ ). Such significant differences were found also for the respondents aged 19–24 and those who strongly agreed on animal rights ( $t[327] = 15.419, P = 0.000$ ) and animal feelings respectively ( $t[327] = 25.801, P = 0.000$ ). People from an urban background, living in regional administrative centres, were significantly more aware of animal sentience as they strongly agreed that animals had rights ( $t[333] = 14.569, P = 0.000$ ) and could feel emotions ( $t[333] = 23.125, P = 0.000$ ).

Regarding the participants' relationship with animals, the study found that the majority of them had cared for pets previously or at the present moment (91.89% in total). At the same time, a smaller share of the respondents had experience with farm animals in the past or present (51.35% in total) (Fig. 1). However, this kind of interaction with companion or productive

animals was found to affect significantly the participants' understanding of animal sentience: pet keepers strongly agreed on animal rights ( $t[333] = 6.870, P = 0.000$ ) and feelings ( $t[333] = 18.471, P = 0.000$ ), and so did owners of farm animals ( $t[332] = 11.048, P = 0.000$  for animal rights;  $t[332] = 20.260, P = 0.000$  for animal feelings).

The personal attitudes of the participants in the survey towards the statements "Animals have rights" and "Animals have feelings" were investigated (Fig. 2). The majority of the respondents strongly agreed that animals were able to experience emotions (94%) and had rights (69.97%), with a positive correlation between the two groups ( $r = 0.40; P < 0.05$ ). The survey also recorded a positive correlation between the respondents who strongly agreed on animal rights (69.97%) and those who stated to be fully aware (86.19%) of the nature of animal cruelty acts ( $r = 0.39; P < 0.05$ ).

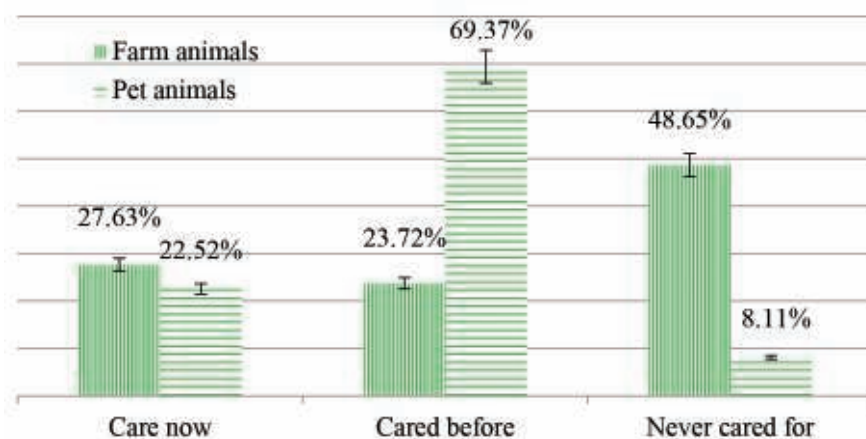


Fig. 1. Respondents' distribution regarding their relationship with farm animals and pets

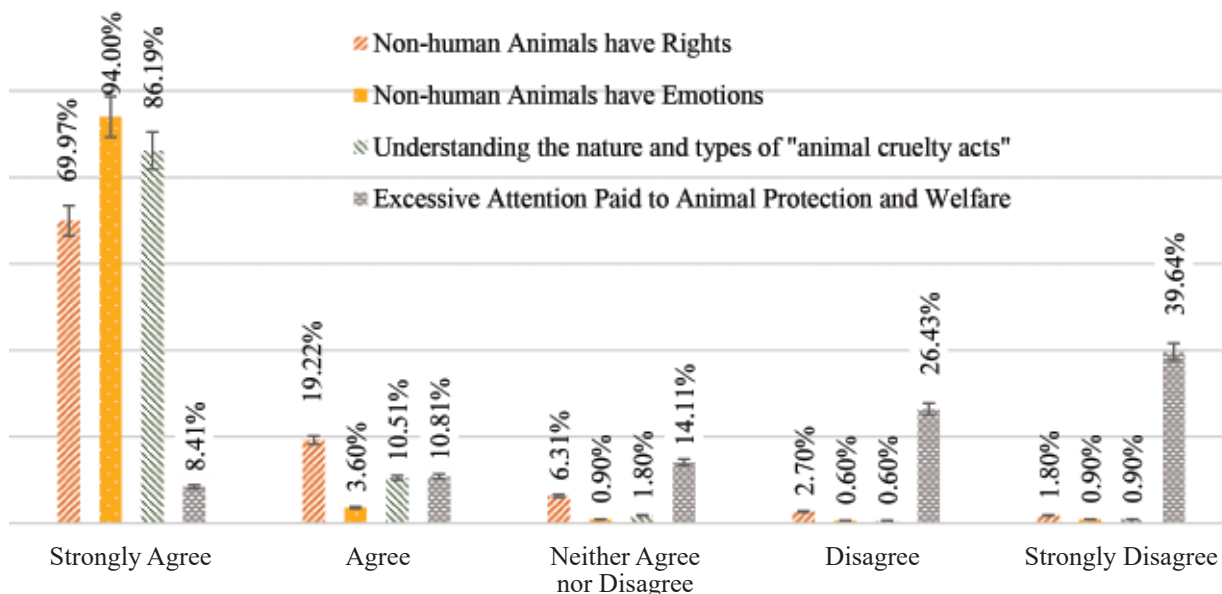


Fig. 2. Respondents' attitudes towards animal rights, feelings, animal cruelty and welfare issues

\*Values may not total 100% for each category because of non-responder.

The rate of the participants in the survey who strongly disagreed that excessive public attention was paid to animal protection and welfare (39.64%) increased with the decrease of the respondents who recognized the animal emotions and rights (1.80% for rights and 0.90% for emotions) (Fig.2), with a negative correlation established ( $r = -0.31$  for emotions and  $r = -0.26$  for rights;  $P < 0.05$ ). The Student t test found a significant difference between the group of the respondents who strongly agreed on their high awareness of animal abuse acts and those who disagreed that too much attention had been put on the animal welfare and protection issues ( $t[333] = -33.122$ ,  $P = 0.000$ ).

Asked to identify the acts that appeared to be abusive towards the non-human animals, most of the respondents pointed out physical actions like beating, dragging, etc. (42.04%). Of all other types of violence, only neglect was perceived as cruelty (0.90%). In fact, half of the participants stated that animals were subjected to more than one type of abusive human behaviour (51.05%), combining physical and emotional abuse (Fig. 3). It appeared that the respondents probably did not recognize emotional

or sexual abuse as single acts of aggressive behaviour to animals. However, the study found significant differences between the respondents' unawareness of sexual abuse of animals and the group of pet keepers ( $t[333] = -11.912$ ,  $P = 0.000$ ) and farm animal owners ( $t[332] = -8.342$ ,  $P = 0.000$ ) as well.

In a hypothetic situation with demonstrated animal cruelty, the participants in the survey were eager to approach the offender in several ways: 23.12% would call the competent authorities to sanction the perpetrator, 11.11% would physically interfere, 9.91% would try verbally to interrupt the offender and 1.80% would not react to protect the abused animal (but feel emotionally disturbed) (Fig. 4). The majority of the respondents (45.65%) stated they would try more than one approach (a combination of physical and verbal interaction with the offender and a call to the authorities) in order to protect the abused animal.

The respondents' perceptions on the sentience of non-human animals (recognition of animal rights and feelings) appeared to be among the factors determining their personal reactions in situations with expressed violence against animals, in favour of a verbal approach towards the offender ( $t[333] = 6.912$ ,

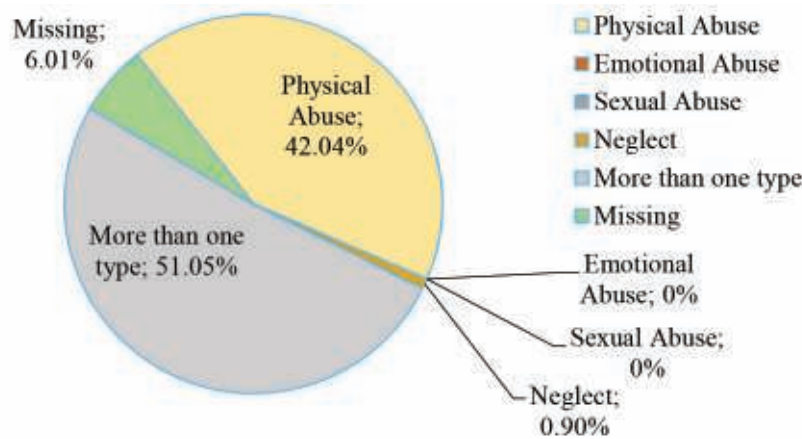


Fig. 3. Respondents' distribution regarding their recognition of types of animal cruelty

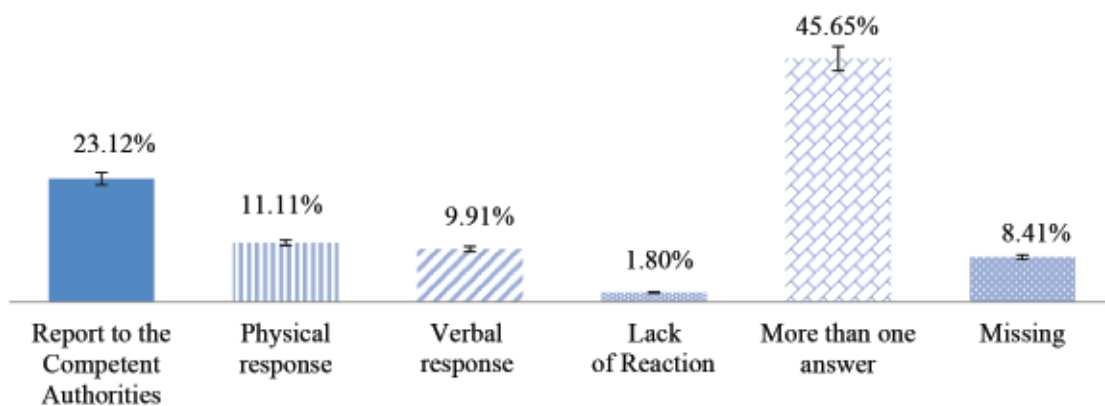


Fig. 4. Respondents' personal reactions in an animal cruelty situation, frequency distribution



$P = 0.000$ ). The same response to protect abused animals was preferred by the group of respondents who declared full awareness on the nature of animal cruelty acts ( $t[333] = -21.816$ ,  $P = 0.000$ ). In fact, women were found to show a significant difference in favour of the verbal interaction with the offender ( $t[332] = -19.841$ ,  $P = 0.000$ ).

### Discussion and conclusions

Attitudes of the wide public towards non-human animals have been supposed to be formed by various factors like demographics, animal use, human-animal interaction and professional occupation. Studies in different regions of the world have compared the sensitivity of professionals as veterinarians, biologists, animal scientists, ordinary citizens and students on welfare issues like pain and feelings in animals (Ostovic et al., 2016; Tamioso et al., 2018; Menor-Campos et al., 2019; Mikuš et al., 2020) with evidence on the higher awareness on their ability to experience emotions and suffering perceived by women, aged 18–29 years old, with higher education. In consistence with these findings, our study found significant differences towards the sentience of animals and their rights and emotions, strongly agreed by female respondents, aged 19–24 years old and studying for their university degree. Generally, women were related with greater concern to non-human animals, compared with men (Knight et al., 2004; Herzog, 2007), although some authors did not find associations between animal welfare issues awareness and respondents' gender (Johnstone et al., 2019) or age (Zalaf and Egan, 2015).

Professional occupation in the field of human-animal interaction and animal care also plays a role in the formation of people's perception on wellbeing and sentience of animals. Specialists like veterinarians, animal scientists and even farmers have showed higher perceptions of sentience of productive animals (Tamioso et al., 2018, Ostovic et al., 2016) although a lower level of welfare seems to be tolerated for farm animals compared with the wellbeing of pets on the whole (Mariti et al., 2018; Howell et al., 2016; Wolfensohn and Honess, 2007). The participants in our survey who had previous or current experience in raising companion or farm animals were found to be equally and significantly sensitive ( $P < 0.05$ ) towards the rights and emotions of animals. This close contact with animals has been confirmed to take part in the formation of positive attitudes towards animals by people in more rural countries (Zalaf and Egan, 2015). On the contrary, other authors have argued that urban context affects much more the public perceptions on animal sentience, cognition and overall welfare as urban citizens consider morally the animals kept with their mental capacities and use for entertainment, not for food (Jasper & Nelkin, 1992; Bratanova et al., 2011). In consistence with this position, we found significant differences in favour of the respondents from an urban background, living in cities-administrative

centres, towards the ability of animals to experience emotions and suffering ( $P = 0.000$ ).

Public awareness on abusive behaviour towards animals was also investigated in the light of human-animal interaction. The respondents in our study appeared to be mostly aware of physical abuse of animals (42.04%) demonstrated like beating, shooting, dragging, drowning, etc., which were pointed out by Newberry (2018) like the main methods used in animal cruelty offences, most commonly on dogs. Regarding the other types of abuse, like emotional and sexual abuse, our study showed that they appeared to be unrecognized by the public. In fact, significant differences between the respondents' unawareness of sexual abuse of animals and the group of pet keepers ( $P = 0.000$ ) and farm animal owners ( $P = 0.000$ ) were found. We could suggest that personal interaction with animals in the livestock sector predisposed a more utilitarian view of animal values which other authors (Taylor & Signal, 2006; Coleman, 2008; Verbeke, 2009) argued to be a factor for considering improper or abusive treatment of animals.

Regarding individual approaches in an abusive situation including animal victims, research has showed that public attitudes to animal cruelty were dependent on demographics, culture, values and beliefs, etc. (Ascione et al., 2003; Henry, 2004; Baldry, 2005; Hensley & Tallichet, 2005; Gullone & Robertson, 2008; Gullone, 2014; Hawkins & Williams, 2020) and varied among different employment sectors in society like ordinary citizens and professionals (Taylor and Signal, 2006; Joo et al., 2020).

As awareness towards animal abuse increased in the wide public, Tiplady et al. (2013) reported that 98% of people experienced at least one of the possible immediate reactions after encountering animal cruelty situations. This fact coincided with our results which showed that at least five types of reactions were defined by the respondents in animal cruelty cases – a call to competent authorities, a physical approach to the offender, a verbal approach, lack of reaction (but including emotional disturbance) and a combination of the mentioned, e.g., a physical or verbal response and a report, the last one being chosen by the majority of the respondents (45.65%). Emotional disturbance, like feeling pity for animals, sadness, anger or hatred, has been argued by Tiplady et al. (2013) and Sinclair et al. (2018) to be detected as a form of compassion which appeared to be an impulse toward both human and animal violence. Ethical beliefs and intention to protect the animal have been found to be reasons for response in abusive cases (Kogan et al., 2017; Pręgoski & Cieślak, 2020). At the same time, Taylor and Signal (2006) defined personal intervention like a physical approach to be seen as an inappropriate action in animal cruelty acts with the group with such an inappropriate response to be much less likely to report deliberate animal cruelty overall compared with any other group in their survey. However,

approximately half of the respondents in our study (45.65%) indicated the personal response as a possibility to interrupt the offender in combination with verbal interaction and a call to the authorities.

The emotional response to animal cruelty, like compassion and empathy, has been found by Tip-lady et al. (2013) to be demonstrated more likely by women than men. In our study, women were found to show a significant difference in favour of the verbal interaction with the offender ( $P = 0.000$ ). At the same time, Taylor and Signal (2006) have reported that both genders indicated a willingness to report incidents of violence toward animals (women = 4.40%, men = 4.06%). When veterinary professionals were considered about their propensity to report animal cruelty, Joo et al. (2020) have found that female veterinarians had a much stronger intention of reporting animal abuse cases to police ( $P = 0.01$ ). However, only a minority of veterinarians have reported the suspected cases (Stolt et al., 1998; Kogan et al., 2017; Milroy et al., 2018; Pręgoski & Cieślak, 2020).

In conclusion, the present study found that young women in their university undergraduate degrees, as well as residents with an urban profile from cities-administrative centres demonstrated high awareness on the abilities of animals to feel pain, have emotions and rights. Such high sensitiveness on animal welfare issues was declared by the respondents, i.e., pet keepers and farm animal owners, whose understanding on

animal sentience was significantly affected by the past or present personal interaction with their non-human companions.

The respondents' awareness of animal sentience and wellbeing was found to shape their perceptions on the nature of animal cruelty. It appeared that the majority of the participants in the study recognized physical abuse towards animal victims but were not fully aware of emotional or sexual abusive behaviour. However, although disregarding certain types of animal cruelty, the respondents indicated a significantly important willingness to respond in controversial abusive situations, mainly through a personal approach to the offender (physically or verbally) with a propensity to report and call the competent authorities on the scene. Based on the different demographic profile of the respondents, especially the specific group of veterinary students, it could be said that the findings at this stage did not represent the general public opinion.

Further studies would be necessary to identify people's knowledge to whom to report in order to assist the animal health and protection services and to improve the state of prevention of animal cruelty.

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