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Using an alternative technique of multidimensional scaling to compare three perceptual spaces of animal abuse

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Abstract

The increasing social and political focus on animal abuse has led to changes in legislation recognizing animals as sentient beings and to research analyzing human-animal relationship. Animal abuse is legally typified as an environmental crime within the category of crimes against the natural environment, such as those that harm flora, fauna, and protected areas. Animal stereotypes influence how they are categorized and treated by humans. The aim of this study is to analyze the similarities and differences among the perceptual spaces that people spontaneously elaborate when representing the abuse of protected animals, pets and farm animals. Participants were 366 men and women aged between 18-82 years, mostly resident in a highly environmentally protected territory. They completed an online questionnaire containing scenarios, based on press releases, of the three categories of environmental crime. Each participant was randomly asked to rate the scenarios from one of these three categories in terms of severity, justification, indignation, intentionality, punishment, and likelihood of personal intervention and calling the police. The questionnaire also included questions on sociodemographic data and a social desirability scale. The data were analyzed with multidimensional scaling using as input matrixes the average of the squared differences of the scores assigned to each pair of scenarios by all participants on each scale, instead of the traditional technique, in which each input matrix corresponds to one participant. The result showed that a three-dimension solution was the best for the three perceptual spaces. However, the content, label and order in which each dimension emerged in the shaping of each space varied. Most pet abuse scenarios were perceived as highly reprehensible and deliberate, with the abuse of dogs and cats being more unjustified and deserving of personal intervention than of other companion animals. Scenarios involving the abuse of protected and of farm animal elicited less consistent reactions, influenced by the perception of their instrumentality for humans, as food or for economic profits. In conclusion, the results suggest that animal abuse is a specific type of environmental crime and that characteristics such as that its victim are specific living beings and that the harm they suffer is observable need to be taken into account for a better understanding. The advantage of the procedure used for the multidimensional scaling was that, in addition to providing the weights of each scenario in the scaling dimensions, it also facilitated the weights of the scales in relation to these dimensions. These weights provided very useful quantitative information for the interpretation of the dimensions that would otherwise had to be based exclusively on the relative proximities of the scenarios. Future research should use alternative methodologies and techniques, in different samples and settings, to explore the key variables for effective interventions to prevent and control the social problem of animal abuse.

Keywords

Multidimensional scaling analysis; Animal Abuse

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