



Do Attitudes Towards Animal Rights Predict Empathy?*

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Keywords

Attitudes towards animal rights
Empathy
Animal rights

Article Info:

Received : 22-04-2021
Accepted : 03-03-2022
Published : 11-04-2022

Abstract

The attitudes that are formed due to human-animal interactions has proven to be an essential and unique research field for psychology. This study aims to determine whether the attitudes of adults towards animal rights significantly differ according to the following variables: gender, educational background, marital status, having children, pet ownership, and membership to non-governmental organizations dealing with animal right issues. It also examines how attitudes towards animal rights predict empathy. The participants of the study are 493 adults (289 female, 204 male), living in Turkey. The participants were determined through convenient sampling method. The data was collected through Attitudes towards Animal Rights Scale and Basic Empathy Scale. Independent samples t-test and multiple standard linear regression analysis were used for the analysis. The results revealed significant differences between the participants' attitudes towards animal rights and their gender, educational background, marital status, having children, pet ownership, having a pet in the past and membership to non-governmental organizations dealing with animal right issues. In addition, regression analysis showed that attitudes towards animal rights and having pets in the past accounted for empathy. The study showed that respect to animal rights is an important variable that accounts for empathy. Suggestions and directions for further research are discussed.

DOI: 10.52963/PERR_Biruni_V11.N1.25

To cite this article: Demir, A., & Zeren, Ş. G. (2022). Do attitudes towards animal rights predict empathy?. *Psycho-Educational Research Reviews*, 11(1), 392-402. doi: 10.52963/PERR_Biruni_V11.N1.25

* This study was produced from the master thesis prepared by the first author under the supervision of the second author. Part of the study was presented at V. TURKCESS International Education and Social Sciences Congress.

INTRODUCTION

Since the beginning of history, humans and animals have always lived together and interacted with each other and animals have played a significant cultural and social role in modern societies in many areas (Taylor & Signal, 2005). One of these roles is the beneficial effects of animals in mental health areas such as more motivation, less anxiety or depressive symptoms, increased social relations and emotional wellbeing (Bolstad et. al., 2021; Foerder & Royer, 2021; Hawkins et al., 2021; Janssens et. al., 2020). Animal rights refers to dealing with human-animal relations as a social movement within the framework of laws and organizations (Siddiq et al., 2018). If humans see animals as creatures that are different from them and inferior to them, they are likely to develop an attitude based on the assumption that animals exist only to serve them, which might lead to unethical and harmful consequences such as extinction of some animals, shortage of resources due to overuse of animal products and some certain ecological risks (Beatson & Halloran, 2007). The terms animal rights and animal welfare differ from each other in some ways. First of all, animal rights developed much later than animal welfare. In addition, animal welfare deals with well-being of animals, and it suggests that especially animals which need human care should be fed well enough, their necessary medical needs should be met, and they should never be exposed to any physical or mental violence (Hile, 2009). On the other hand, "animal rights" goes even further by suggesting that animals should never be used for work, agriculture, food, clothing or entertainment purposes. In other words, animal rights advocates emphasize that animals should be treated as fairly as humans. When it comes to political concerns for animal rights issues, there is more information needed regarding our attitudes, beliefs and perceptions (Widdicombe & Dowling-Guyer, 2021).

Although animals have an important role in every society, the attitudes towards animals can differ depending on cultures or individual differences like age, experience with animals, and gender (Morrison et al., 2021). The related literature includes many studies focusing on attitudes towards animal rights. One of these studies examined university students' attitudes towards animal testing. The study found that the group that supports animal testing consists of males who are masculine, conservative and have low empathy levels, and those who are against animal testing often support vegetarianism (Broida et al., 1993). Another similar study revealed that sensitive and imaginative people have more positive attitudes about animals than rough and realistic individuals and women have more positive attitudes towards animals than men (Mathews & Herzog, 1997). In another study conducted with university students, results showed that growing up in rural areas had significantly lowered attitudes towards animal scores. It was also found that women, students who had experiences with pets and service animals, and those who are learning about animals using newspapers/magazines have more positive attitudes towards animals (Morrison et al., 2021). In a different study with psychology students, the researchers found that women, people who support left-wing policies, those who consider themselves pet lovers and vegetarians have more negative attitudes towards experiments using animals when compared to other groups (Furnham & Heyes, 1993). The study conducted by Vigorito (1996) revealed that first year students have more negative attitudes towards animal rights than fourth year students. Similarly, Pious (1996) found that professionals in the field of psychology support the animal tests that only involve observation and confinement, but do not approve tests that are likely to cause pain or death; he also found that opposition to animal testing was stronger in women. Some research conducted in the following years showed that women are against the exploitation of animals in experiments more than men, educational background does not cause significant difference on attitudes; the strongest attitudes against exploitation of animals in experiments come from vegetarians (Furnham et al., 2003); people who currently have a pet or had one during his/her childhood have more positive attitudes towards animal rights (Hazel et al., 2011); and men have lower levels of positive attitudes and emotional empathy for animals when compared to women (Paul & Podberscek, 2000).

Unfortunately, there are few studies focusing on animal rights in Turkey. One study showed that most of the participants believed that animal rights are not paid enough attention in Turkey (Özkul et al., 2013). In another study, the researchers found that students and academic staff at veterinary faculties have positive attitudes regarding the ethical status of animals and women are more positive in their attitudes than men. The study also revealed that academic staff are more positive than students just like pet owners who are more positive than those who do not own a pet (Özen et al., 2009). A similar study focused on the importance of individuals' attempts to understand animals' emotions and opinions for a positive animal-human interaction (Çalışkan et al., 2014).

Another issue discussed in relation to animal-human relations is empathy, which has a significant role in behaviors towards humans and animals (Thompson & Gullone, 2008). Empathy has a multi-dimensional structure, which consists of cognitive and affective components, and is defined as an individual's quick and spontaneous connection with someone else's emotional state (De Waal, 2008; Erlanger & Tsytsarev, 2012). Since animals cannot express themselves verbally, humans must develop certain skills to understand them. It is possible for individuals to feel empathy with creatures that are different from them (Decety & Jackson, 2004; Rothgerber & Mican, 2014). Interacting with animals brings physical, psychological and emotional benefits to individuals. For instance, Melson and Fogel (1989), suggests that children develop social and emotional skills when they observe and keep animals or interact with them. A study showed that having a dog during early childhood is significantly related with social development in both girls and boys (Dueñas et al., 2021). In another study it was found that children's empathy levels increased when they fed a pet dog in their classroom for three months (Hergovich et al., 2002) and the children with high levels of commitment for pets had higher levels of empathy and prosocial behaviors (Bratko et al., 1999; Daly & Morton, 2003). Another study found that children who have a companion animal and who scored animals higher on sentience capabilities have more pro-animal attitudes (Menor-Campos et al., 2019). There are also some studies showing that having a pet during childhood predicts higher levels of empathy (Bratko et al., 1999; Daly & Morton, 2006; Daly & Morton, 2009; Ellingsen et al., 2010; Paul, 2000; Paul & Serpell, 1993; Rothgerber & Mican, 2014; Vizek-Vidović et al., 2001). Another study showed that children tend to have more understanding about the welfare of pets, rather than farm animals. The children showed cognitive empathy towards farm animals, but the affective empathy was more limited. As for the reason for this difference, the study suggested that most of the children had less contact with farm animals than they had with pets (Burich & Williams, 2020). Another study showed that cruelty to animals in primary school children had significant positive correlation with aggression and negative correlation with empathy (Akdemir & Gölge, 2020). As for adult groups, the following findings were reported in various studies: women are more empathic than men and old people are more empathic than young people (Angantyr et al., 2011); people who currently have a pet have more positive attitude towards animals than those who do not have any and there is a positive significant correlation between empathy and attitude towards animals (Taylor & Signal, 2005); people who are involved in activities aiming to protect animals have higher scores both in attitudes towards animals and empathy towards people (Taylor & Signal, 2007); people who support animal rights have higher levels of empathy (Hills, 1993); and there is a positive and meaningful correlation between empathy towards animals and positive attitudes towards animals (Ellingsen et al., 2010).

This study focuses on finding answers to the following questions: (1) Do the attitudes of adults towards animal rights differ according to the following variables: gender, educational background, marital status, having children, pet ownership and membership to non-governmental organizations dealing with animal rights issues. (2) To what extent do attitudes towards animal rights and pet ownership predict empathy?

METHOD

PARTICIPANTS

Within the scope of the study, 510 participants replied to the scale; however, 12 participants did not reply to all the items. Also, one participant was younger than 18 years old and four sets of data were found to have extreme values during the statistical analyses. Thus, they were excluded from the data set. As a result, the study was completed with 493 participants (289 female and 204 male), whose ages range between 18 and 72 (the average being 27.1); 52% of the participants were younger than 25 years old; 74% were single; 78% did not have a child; 31% have at least one pet; 69% had a pet sometime in their lives and 5% preferred vegetarian diet.

INSTRUMENTS

THE ATTITUDE TOWARDS ANIMAL RIGHTS SCALE (AARS)

The Attitude towards Animal Rights Scale (AARS) was developed by Akoğlu (2014) to determine people's attitudes towards animal rights. The AARS was developed with 432 participants including 286 women (66.2%) and 146 men (33.8%). The average age of the participants is 21.54. This 5-points Likert scale is composed of 32 items. A high score from the scale indicates a high level of attitude towards supporting animal rights. Akoğlu (2014) found reliability coefficient $\alpha = .90$ and the reliability of test-retest, which was administered again 15 days later, as $.69$.

In this research, the reliability coefficient for the AARS was found $\alpha = .90$. The factorial structure of this scale was re-analysed in the research, and item factor loadings were found between $.31$ and $.76$. The researchers also used the scale as two-factors formation defined by Akoğlu (2014).

BASIC EMPATHY SCALE

Basic Empathy Scale was developed by Jolliffe and Farrington (2006) and adapted to Turkish by Topçu et al. (2010). The scale aims to measure empathy level in terms of four basic emotions; fear, sadness, anger and happiness. The scale was developed with two different groups of 358 and 359 students, whose ages range between 13-21. This 5-point Likert scale consists of 20 items. High scores to be obtained from the scale indicate high levels of empathy. The original reliability coefficient of the scale was calculated as $.85$ for affective dimension and $.79$ for cognitive dimension. The reliability and internal consistency coefficient after the adaption of the scale into Turkish were found to be $.76$ and $.80$ respectively (Topcu et al., 2010).

The Cronbach alpha coefficient of the scale was recalculated for this research and found to be $.85$. The factorial structure of this scale was re-analysed in the research, and item factor loadings were found between $.45$ and $.80$. The researchers also used the scale as two-factors defined by Topcu et al. (2010).

DATA COLLECTION

This study was approved by the academic ethics committee of a state university in Turkey. The study group was determined by using a convenient sampling method. The criterion for the participation in the study was "being over 18 years old". The data was collected online via GoogleDoc application. The form was shared by the researcher (as a clickable web link) on various social media networks in order to reach potential participants. The names of the participants were not taken as data in the data set. Participants were enlightened that all the information provided would not be used for anything other than research purposes. The form consisted of informed consent form, personal information form and the items of the scale.

DATA ANALYSIS

Histogram, coefficient of variation, Kolmogrov-Smirnov test and skewness-kurtosis analyses were used as normality tests to determine whether the data had normal distribution or not. Kolmogrov- Smirnov test revealed that the data did not show normal distribution. Later, skewness and kurtosis coefficient values were examined and the results for both empathy and attitudes towards animal rights were found to be between ± 1 range, which implies that the scores have normal distribution (Büyüköztürk, 2002; Field, 2009). Independent samples t-test and multiple linear regression analysis were done in the analyses of the data. Preliminary analyses were done prior to the regression analysis and the data were found to be appropriate for multiple linear regression analysis. Accordingly, it was found that tolerance values were lower than .10 and VIF values were higher than 0.10, the data did not violate common linearity hypothesis, Cook’s Distance value ranged between .00 and .04 for empathy and between .00 and .96 for attitudes towards animals (Pallant, 2017). IBM Statistics SPSS 23 software was used for the analyses and the level of significance was taken as .01.

RESULTS

Independent samples t-test was done to determine whether the attitudes of adults towards animal rights significantly differ according to the following variables: gender, educational background, marital status, having children, pet ownership and membership to non-governmental organizations dealing with animal rights.

Table 1. Independent Samples t-test for Attitudes Towards Animal Rights

<i>Variables</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>	η^2
Gender							
Female	289	138.04	12.51	355.27	8.21	.000**	.12
Male	204	126.66	16.77				
Education Level							
Compulsory education	120	122.62	17.53	163.16	-8.15	.000**	.11
Undergraduate and graduate	373	136.78	12.99				
Marital Status							
Married	128	128.47	12.51	181.68	-3.70	.000**	.02
Single	365	135.04	16.77				
Having children							
Yes	109	129.44	17.18	156.16	-2.76	.006*	.01
No	384	134.44	14.78				
Having pets							
Yes	155	135.91	14.26	329.79	2.62	.009*	.02
No	338	132.15	15.86				
Having pets in the past							
Yes	339	134.96	14.34	253.30	3.28	.001*	.02
No	154	129.75	17.21				
Organization member							
Yes	62	141.85	11.15	99.14	6.08	.000**	.06
No	431	132.11	15.62				

**p < .001 *p < .01

According to the results, the mean scores of attitude towards animal rights were significantly higher in favor of the first group of participants for each of the following compared pairs: women vs. men ($t_{(355.27)} = 8.21, p < .001$); those having undergraduate or graduate level educational background vs. compulsory educational level background ($t_{(163.16)} = -8.15, p < .001$); singles vs. married individuals ($t_{(181.68)} = -3.70, p < .001$); those having no child(ren) vs. those having child(ren) ($t_{(156.15)} = -2.76, p < .01$); pet owners vs. those having no pet animals ($t_{(329.79)} = 2.62, p < .01$); those who had once a pet in the past vs. those who did not have a pet in the past ($t_{(253.29)} = 3.28, p < .01$) and those who are members of non-governmental organizations dealing with animal rights issues vs. those who are not members of such organizations ($t_{(99.14)} = 6.07, p < .001$).

Standard multiple linear regression analysis was done to determine whether attitudes towards animal rights predict empathy or not. The results of Pearson correlation analysis, which was done prior to the regression analysis, are displayed in Table 2 below.

Table 2. Correlations Between Attitudes Towards Animal Rights, Empathy, and Variables

Variables	1	2	3	4	5	6
1. Empathy	1.00					
2. Attitudes towards animal rights	.56**	1.00				
3. Having pets	.01	.11*	1.00			
4. Having pets in the past	.15**	.16**	.29**	1.00		
5. Organization membership	.08	.21**	.26**	.12**	1.00	

* $p < .05$ ** $p < .01$

According to Table 2, there is a strong and positive ($r = .56, p < .01$) correlation between empathy and attitudes towards animal rights; and significant, positive and weak correlation ($r = .15, p < .01$) between having pet in the past and empathy.

Standard multiple regression analysis was done to determine whether attitude towards animal rights and having pets in the past predict empathy. The variables with significant correlations were included in the analysis. The results are displayed in Table 3.

Table 3. Multiple Linear Regression Analysis Results

Variables	B	SD	β	t	p	Binary	Partial
Constant	26.72	3.28	-	8.14	.00	-	-
Attitudes towards animal rights	.36	.03	.55	14.38	.00**	.56	.54
Having pets in the past	1.42	.83	.07	1.73	.08	.15	.08
R = .56	R ² = .31						
F _(2,490) = 70.24	P = .00						

$p < .05^*$ $p < .01^{**}$

Attitudes towards animal rights have significant correlation with empathy and having pets in the past. All these variables together account 31% of the total variance. According to standardized regression coefficient (β), the predictive variables in the order of their predictive power on empathy are attitudes towards animal rights and having pets in the past. When the results regarding the significances of regression coefficients are examined, it can be concluded that attitudes towards animal rights are significantly predictive of empathy. However, having a pet in the past does not have any significant effect on empathy.

DISCUSSION, CONCLUSION AND IMPLICATIONS

DISCUSSION

This study revealed that women have more positive attitudes towards animals than men, which is supported by the findings of different studies (Broida et al., 1993; Driscoll, 1995; Ellingsen et al., 2010; Furnham & Heyes, 1993; Furnham et al., 2003; Hazel et al., 2011; Herzog et al., 1991; Hills, 1993; Kafer et al., 1992; Mathews & Herzog, 1997; Özen et al., 2009; Paul, 2000; Paul & Podberscek, 2000; Phillips & McCulloch, 2005; Signal & Taylor, 2006; Signal & Taylor, 2007; Taylor & Signal, 2005; Pious, 1996). Lifelong learning is considered to be one of the easiest and most important aspects of the learning process. And what people learn naturally or informally, is very important and impactful on their life (Frąckowiak, 2017). It is acknowledged that women's instincts of embracing, and caring are often reinforced by the society even starting from young ages (Melson & Fogel, 1989). In this respect, the fact that "motherly" attitudes such as caring about animals, feeding and protecting them can be considered as the natural consequence of social gender roles.

Through education, individuals can gain knowledge and skills as well as positive attitudes and behaviors (Özkan, 2021). In this respect, another finding of this study is that people with undergraduate and graduate level educational backgrounds have more positive attitudes towards animal rights. This finding is different from some other studies in the literature. Some research revealed no differences according to educational background (Furnham et al., 2003; Signal & Taylor, 2006) and even some studies found that positive attitude towards animal rights decreases as educational level increases (Ellingsen et al., 2010; Kafer et al., 1992). Positive attitudes towards animal rights and animal rights advocacy are largely influenced by the dynamics of the society (Pifer et al., 1994). In Turkey, university campuses house many animals and there are many student clubs and groups aiming to advocate animal rights. And when there is a positive emotional connection to the learning process, it is easier to transfer that subject into the real world (ElAdl & Polpol, 2020). Active participation is an important part of the learning process and educational institutions are not just places where values are lived, but also places where they can be created. (Gündoğdu et al., 2019; Kuuk & Arslan, 2020). Thus, it is easier for students who receive undergraduate and graduate level education to interact with animals or meet people who advocate animal rights and develop more positive attitudes.

The study also showed that single individuals have more positive attitudes towards animal rights than married ones. Similarly, people who do not have children develop more positive attitudes towards animal rights than those who have children. This finding is consistent with the finding of the studies conducted by Kafer et al. (1992), Paul (2000) and Signal and Taylor (2006). The reason behind this finding might be that married people and those having child(ren) spend less time for social activities because of their responsibilities for spouse, parents, work and housework. It is possible that they cannot be interested in animal rights and interact with animals because of their responsibilities.

According to the study, the "attitudes towards animal rights" scores of people who had a pet in the past and those who currently have one are significantly higher than others. Some studies in the literature report that there is a significant relationship between positive attitudes towards animal rights and having a pet in the past (Daly & Morton, 2009; Ellingsen et al., 2010; Paul, 2000; Paul & Serpell, 1993) and currently having a pet (Daly & Morton, 2009; Hazel et al., 2011; Kafer et al., 1992; Özen et al., 2009; Paul, 2000; Taylor & Signal, 2005).

Still another finding of the study is that those who are members of non-governmental organizations dealing with animal right issues have higher scores for attitude towards animal rights, which is supported by the findings of some studies in the literature (Broida et al., 1993; Özkul et al., 2013; Signal & Taylor, 2007). People who have positive attitudes towards animal rights are more eager to advocate these rights. Such non-governmental organizations are established to achieve this goal and they want to act collaboratively as a community so that they can be more effective. Therefore, it is quite reasonable that people with positive attitudes towards animal rights are willing to join these organizations and actively participate in their activities. Another dimension of this situation might be that people come together in these organizations and teach others and improve themselves about the issues related to animal rights.

CONCLUSION

According to the findings, the predictive variables in the order of their predictive power on empathy are as follows: attitudes towards animal rights and owning a pet in the past. Attitudes towards animal rights explain 31% of variance at empathy level. There are some studies which support this finding in the literature (Ascione, 1992; Broida et al., 1993; Daly & Morton, 2006; Erlanger & Tsytsarev, 2012; Ellingsen et al., 2010; Furnham et al., 2003; Hazel et al., 2011; Hergovich et al., 2002; Hills, 1993; Paul, 2000; Poresky & Hendrix, 1990; Signal & Taylor, 2007; Taylor & Signal, 2005; Thompson & Gullone, 2008). However, Daly and Morton (2003) reported that there is not a significant relationship between attitudes towards animals and empathy; and Henry (2006) found a negative correlation between these two variables. Individuals' positive emotions, ideas and behaviors about animals might improve their attitudes towards people as well. Thus, humans should develop their empathy skills so that they can understand the needs of all creatures in nature, help to meet these needs and support their right to live in this world without being exposed to any harm. In this respect, it might be concluded that developing positive attitudes towards animals will increase individuals' empathy levels as well.

IMPLICATIONS

The study showed that respect to animal rights is an important variable that accounts for empathy. It might be suggested that certain activities addressing men should be designed under the light of the findings of this study in order to popularize both empathy and respect for animal rights. Another suggestion might be to design activities to encourage people to adopt animals on the condition that they should assume responsibilities for the care of these animals. Projects, activities and lessons that provide interaction with various animals and teach children about animal rights can also be suggested. Such projects and lessons can be planned and applied for children in compulsory education and for young people in university campuses.

AUTHOR CONTRIBUTION

- The first author made significant contributions to the design of the study, analysis and interpretation of the data.
- The second author was involved in drafting the article, interpreting the results, and critically revising it for important intellectual content.

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