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# **ATTITUDES TOWARD COMPANION ANIMALS AMONG UNIVERSITY STUDENTS IN PALESTINE AND NORWAY: A QUANTITATIVE STUDY.**

## **Abstract**

This study investigates and compares attitudes of 205 Palestinian and Norwegian university students toward companion animals (pets) using the Pet Attitude Scale. In order to provide some background for Palestinian attitudes toward animals, we discuss canonical Islamic texts on the treatment of non-human animals, as well as the present situation for animal protection in the Middle East. Both Palestinian and Norwegian students showed predominantly positive attitudes toward animals. The findings from the survey suggest differences between Palestinian and Norwegian students; however, both groups showed predominately positive attitudes.

Keywords: animals, companion animals, Palestine, attitudes, quantitative

## **INTRODUCTION**

Although there are differences among religious texts, most seem to present views supportive of animal welfare, especially for domesticated animals (Szűcs, Geers, Jezierski, Sossidou, & Broom, 2012). Numerous studies examine attitudes toward companion animals, primarily in western countries with largely Judeo-Christian influences (Ascione, & Weber, 1996; Bjerke, Ødegårdstuen, & Kaltenborn, 1998; Bowd & Bowd, 1989; Lago, Delaney, Miller & Grill, 1989; Hills, 1993), but few have examined attitudes in non-western countries with other religious influences. In this study, we compare attitudes toward companion animals (pets) among university students in Palestine and Norway using a well-validated instrument, the Pet Attitude Scale.

Norway and Palestine present intriguing contrasts in relation to cultural beliefs. Norwegian society is largely secular; by contrast, in Palestine, Islam has a deep and profound impact on nearly every aspect of daily living, thinking, and behavior (Barakat, 1993). In Norway, religion is only one among many different views on life that orient peoples' lives, but for the large majority of the population in Palestine, Islam is the one and only source of general ethics and attitudes governing thinking and behavior – including attitudes toward companion animals (Hands & Smith, 2009).

In general, the research has been scant on attitudes toward companion animals in the Middle East (Al-Fayez, Awadalla, Templer, & Arikawa, 2003; Al Hafiz, 1989; El Fadl, 2004), even in non-academic publications (Banderker, 2017; Ponce de Leon, 2014; Warah, 2011). The focus of these aforementioned studies is on more general issues, such as animal welfare, the treatment of animals, the protection of animals, animal rights, and so forth, rather than on companion animals specifically. Although the Quran and the Hadiths (sayings of the Prophet, plural of Hadith) make general references to “animals”, there are no directly translatable words for companion animals. Thus, our discussion of Middle Eastern attitudes will focus on animals.

Statistics on the occurrence of companion animals in Palestine are unattainable. One can expect, however, the occurrence of companion animals to be much lower in Palestine than in Norway, in part due to religious restrictions against having dogs inside the home and the general lower economic level in Palestine. Here, companion animals are mostly regarded as an unnecessary luxury, and often comprise cats, birds, and fish. Dogs either are usually stray or serve as guard dogs or sheepdogs. However, there is some evidence that companion dog ownership is on the rise, as evidenced by a proclamation from Hamas in the Gaza Strip that “dog walking” in certain public places is forbidden. (Wilford, 2017).

One estimate on the prevalence of cats and dogs in Norwegian households states that 14% of all households have one or more dogs, and 17% have cats. In a household with four or more people, 44% had a cat or a dog (Kristiansen, 1994). Statistics from the Norwegian government indicate that in 2003, there were at least 300,000 - 400,000 dogs for a population of 4.57 million people (Norwegian government, 2016, p 1).

## **THE THEOLOGICAL STAND**

The Quran states that God’s creation of nature is perfect and that there is a balance in nature that human is not to disrupt. The moon and sun are in calculated perfect harmony, and “plants and trees submit (*sajada*) to His designs” (55:6). God, as the guardian of nature, has “set the balance (*mizan*); so that you may not exceed (disrupt) the balance” (55:9). One can interpret from this passage that human and nature, humans and non-humans, need to live in a harmonious, reinforcing interrelationship. God—not human—is the creator of balance in nature, and, by implication, human is not in any position to be an “overlord” of other sentient

beings. Human's duty is to maintain the natural order and balance of God's creation. On the basis of verses 6:38 and 55:10 in the Quran (2008), Haque & Masri (2011) argue that the Quran "seals the biological parity between humans and the rest of the species" (p. 282). Accordingly, they conclude that we must live in a manner such that there is a good relationship with other species, a "respectful interdependence" (p.242) of all interspecies communities—of which human communities are an integral part.

As in Judaic and Christian texts, one can read in the Quran (2008) that God has made the earth for man's sake. He has "spread out the earth for you" (2:22). Human was, if not created in the image of God, created at the highest level of all of God's creatures. Thus, human has duties specified in the *Sharia* (Islamic law) that are meant to ensure the security and kind treatment to animals (Al-Salam, 2002). As the custodian and representative of God, human has a duty to protect and care for animals, to uphold their rights, to promote their well-being, and to give them the respect due to them. The Quran (2008) is abound with several examples of this attitude (e.g., 6:38, 11:6, 24:41, 27:16, 55:10, 80:24-32). Islam regards human as the guardian of nature, including all animals. For this reason, he is responsible for animals' welfare, because they are also part of the divine creation (35:39, 2:22, and 4:36).

One of the most well-known chapters in the Quran (2008) is the surah on "The Cave" (*Al-Kahf*) (18). The story depicts young monotheistic men who fled to a cave out of fear of prosecution. Here, they fell asleep and with God's help slept for 309 years. God did this, it states, to protect the young true believers. When they woke up, they found themselves in a society that had converted to believing in the same God as they did. However, what is remarkable in this context is that they were not alone: "We turned them over...with their dog stretching out its forelegs at the entrance" (18:18). God himself has incorporated an animal, a dog, in His miracles. This demonstrates that the Quran (2008) provides signs that Islam in its "pure" form does not regard animals (including dogs) as less worthy than human.<sup>1</sup>

Treating animals with kindness can result in great rewards. As accounted in the hadith, the messenger of God (Prophet Mohammed) said, "A man walked on a road and he grew terribly thirsty. He found a well and drank thereof. He then saw a dog that licked his nose and panted due to thirst. 'This dog suffers from the same thirst as I did.' He went again to the well, filled

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<sup>1</sup>A very similar story about pious men sleeping for hundreds of years owing to God's command appears in the Christian story about The Seven Sleepers in Ephesus, which begins with these men seeking escape around 250 AD from the persecutions of the Roman emperor Decius. Nevertheless, Muslims themselves believe that this Christian story is the very same story to which The Cave surah alludes. However, in the "original" there is no mention of any "animal" or dog.

his shoe with water and gave it to the dog. God thanked him for what he had done. The people asked the Prophet ‘Is there any reward in serving animals?’ and He answered ‘Yes. There is a reward in serving that which has been given life (all living creatures)’” (Al-Bukhari, 1986, #38, Muslim, 1975, #5577).<sup>2</sup>

One passage depicts the cruel treatment of animals as a severe sin punishable by God (al-Bukhari 1986, vol. 4, #689). The *hadith* describes a woman’s unhappy fate. The Prophet claimed that God punished her because she kept a cat incarcerated until it died. The woman ended up in hellfire because she neither gave the cat food or water nor let it be free to hunt. From an early period, the Sharia prescribes the good treatment of animals. In the thirteenth century, the Muslim jurist ‘Izz al-Din bin ‘Abd al-Salam (2002) formulated statements promoting animal rights. Animals “shall not be burdened beyond what they can bear;” “they shall not be in the company of something that can injure” or in other ways harm them; “the resting places shall be comfortable and have enough water;” and they are to be provided with the “provision that their kinds require.” Moreover, even if animals become “old and sickened such that no benefit comes from them,” they are to be treated with kindness; if they are to be “slaughtered it shall be with kindness.” Moreover, young animals are not to be slaughtered in sight of their mothers (p. 141).

These statements imply that in Islam, as a spiritual system for governing human’s thinking and behavior, attitudes toward animals (including companion animals) are to be marked with respect, compassion, and general kindness. As in the two other monotheistic religions discussed above, it is God’s will that not-human animals are part of His creation and, ideally, people’s attitudes toward animals should be consistent with this aspect of His will. In reality, of course, this is often not the case.

Berglund’s (2014) historical survey on the status of dogs in Islam concludes that Muslim attitudes toward dogs have been and continue to be ambiguous. In some textual instances, the dog is highly discussed, as in statements of ninth-century jurist Ibn al-Marzubahn’s book *The Superiority of Dogs over Many of Those Who Wear Clothes*. Many Muslim princes had pet dogs, which various engravings and paintings from, for example, the Ottoman period depict. Here, dogs possess qualities such as “loyalty, devotion, and self-sacrifice” (Berglund, 2014, p.

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<sup>2</sup> Along with Muslim (817-875) Al-Bukhari (810-870) is regarded as perhaps the most authentic and reliable collector of sayings of the Prophet among Muslim scholars.

545). Yet, in innumerable instances, dogs are presented as the lowest, filthiest, and vilest of creatures, similar to their representation in classic Judaic scriptures.

Recently, Muslim scholars have tried to evaluate some of the hadiths, especially those concerning dogs. One such scholar is El Fadl (2006), who dedicates a chapter to a fictive discussion between sheikh Wadi and his students about a Saudi sheikh who has issued a *Fatwa* on dogs. The Saudi claim is that Islam forbids the ownership of dogs and condemns it. Sheikh Wadi and his students examine this story in great detail, and lead the reader to the conclusion that dogs are not impure, though their saliva is (a common belief among Muslims).

There are reports and *Hadiths* about the impurity of dogs, and consequently there are attitudes reflecting their inadequacy as companion animals. El Fadl (2004) shows the basic incongruity in many of the hadiths related to allowing or disallowing dogs to perform the duties of human beings. Such hadiths have their origins in unreliable chains of sources that reflect pre-Islamic customs and attitudes. In addition, some of the most trustworthy sources (Al-Bukhari and Muslim as mentioned above) state that The Prophet himself both prayed with dogs nearby and allowed them to visit his mosque. The sources also maintain that close relatives and companions of The Prophet owned dogs. A particularly interesting discussion raises an important question: if God created dogs with a nature to be companions to human—that they understand love, kindness, compassion, and respond to them—why should He, who is the almighty, teach man to shun dogs? Moreover, if dogs were not in fact created with human dependency, but domesticated in this manner by humans, the Quran (2008) teaches that human owes the animals the duty of care. God has created everything and man's duty as custodian is to provide good care to all creatures upon Earth.

In summary, both human beings and nonhuman animals are part of God's creation and belong to Him. Humans (and especially all Muslims) are custodians of all creatures on this planet. According to God's words delivered to humankind through his messenger, the Prophet Mohammed, in the Quran, it is the duty of all Muslims to behave with kindness toward, to take care of, and to protect animals of all kinds. Consequently, humans' relationship with and attitudes toward, companion animals should be in alignment with the same reverence that humans have for other humans.

## **THE SITUATION IN TODAY'S MIDDLE EAST**

There are not many studies on attitudes toward animals in the entire Middle East region. What, then, are current attitudes toward companion animals in the present-day Middle East? Furthermore, what can be found from empirical research about people's attitudes toward companion animals?

A large recent study highlighting attitudes toward animals that 11 European and Asian universities conducted involved 3433 student responses from 103 universities (Phillips et al., 2012). The survey focused on such themes as animal integrity, killing animals, animal welfare, experimentation on animals, and societal attitudes toward animals. One Islamic country participated in the study; Iran. The students from European countries had more concern for animal welfare than those from Asia. Those from communist or former communist countries in Asia and Europe had the highest concerns about killing animals. One conclusion is that socio-political differences in different regions, rather than religious or other differences, could explain the difference in the responses.

Iran, one of 3 non-European countries in the survey, was the country that ranked animals the lowest compared with humans. Iran was also low on the animal-welfare index. The researchers believe that this finding could be due to low level of concern for animals legally, since animal protection derives largely from Islamic scriptures. Though these scriptures offer many examples of treating animals well, as demonstrated above, they do not address some concerns of today, such as the intensive housing of poultry or how a *halal* slaughter may be conducted in a way that minimizes the animals' pain.

To examine attitudes toward companion animals in Kuwait, Al-Fayez, (Al-Fayez, Awadalla, Templer, & Arikawa, 2003) used the Pet Attitude Scale (Templer, Salter, Dickey, Baldwin, & Veleber, 1981). The researchers asked Kuwaiti high-school students and their parents about their attitudes toward animals, and discovered that their attitudes were less positive than those in western countries were. In *The global guide to animal protection* (Wheeler, 2013) covers the Middle East in one page. One of the contributors to the guide, Trevor P. Wheeler, asserts that there is a general distinction between useful and nuisance animals and that in some countries, like the UAE, Jordan, and Israel, some companion animals are classified in distinctive categories, whereas in other countries, such as Iran, they are "barely tolerated" and in parts prohibited. However, "a growing number of animal welfare organizations" are working to improve the welfare for animals "through implementation and enforcement of animal welfare legislation" (p. 27), provision of rescue

facilities and work of veterinarians. However, most important, creating humane educational programs, thereby highlighting the needs and sentience of animals.

One example of such an animal-welfare organization is the Hala Animal Welfare Association in Tulkarem, Palestine. This organization seeks to educate people about animal welfare and to promote communication with animals in a humane way. In this way, one changes people's attitudes toward animals and thereby prevents or stops cruelty (Qasmieh, 2015).

In summary, one can say that on a practical level, animals in the Middle East are regarded as being far below humans and attitudes toward them reflect this disdain. As explained above, the main reason for choosing Palestine and Norway as research fields was that the two countries represent two very different cultures in how standards and attitudes are formed. However, the research population, which consisting of university students both in Norway and Palestine, was also chosen out of more practical concerns because conducting "open-field" research in the Middle East can be somewhat inconvenient. Conducting attitudinal studies in Palestine, moreover, presents some challenges and methodological quandaries (Zureik, 2003). The notion that there is something called a "normal public out there" (Zureik, 2003, p. 156) that is available to survey research is problematic because the society is unstable and conflicts between different interests are rife.

By choosing university students to comprise our study population, we had the possibility to match groups at the same level of education (bachelor programs), which is thought to be significant with regard to consciousness about respect for animal rights (Olli, 2001). As noted in several studies (Herzog, 2007), women on average tend to show higher levels of positive behaviors and attitudes toward animals. It is therefore a hypothesis that the gender will have an impact on the results between the groups and that the Norwegian population will answer in a more positive way regarding the higher socioeconomic level in Norway and the higher prevalence of companion animals in Norwegian households compared to Palestinian.

## **METHOD**

### *Participants*

The Palestinian participants in the study ( $n = 99$ , 49 female, 50 male) were recruited from bachelor programs of English language and education at An-Najah National University in Nablus, Palestine. As a comparison, a group of Norwegian students ( $n = 106$ , 59 female, 47 male) were recruited from bachelor programs of social services at Lillehammer University College (LUC)<sup>3</sup> in Norway. For demographic characteristics, see TABLE 1.

*INSERT TABLE 1 HERE*

*On average, the Norwegian participants were 2.5 years older ( $M = 24.3$   $SD = 6.2$ ) than the Palestinian participants ( $M = 21.7$   $SD = 2.6$ ). This difference (equal variances not assumed) is significant ( $t(142) = -4.0$ ,  $p < .001$ ); although this represents a medium-sized effect ( $\eta^2 = .071$ ) the participants' mean age is within the same age group (early twenties).*

### *Measure*

The Pet Attitude Scale (PAS) is an 18-item, self-report Likert-scale, paper-and-pencil instrument. It reflects both negative and positive attitudes. Each item has seven grades: from “strongly disagree” (1) to “strongly agree” (7) with the option “unsure” in the middle. It has good psychometric properties with a Cronbach’s alpha of .93 and test-retest reliability of .92 (Templer et al., 1981). The PAS was correlated with four different personality instruments in the construction and validation study (Templer et al., 1981). Minor modifications were made on the wording of some of the questions in 2004. In this study, we follow the PAS instrument with its 2004 modifications (Munsell, Canfield, Templer, Tangan, & Arikawa, 2004). Some examples of actual research questions are as follows: My pet means more to me than any of my friends (or would if I had one); Having pets is a waste of money; I have occasionally communicated with my pet and understood what it was trying to express (or would if I had one); I love pets; I hate animals; You should treat house pets with as much respect as you would a human member of your family. The instrument has been revalidated since its creation in 1981. In 2008 Diane Morovati concluded that the instrument can still be useful for current research purposes and the reliability analysis was nearly the same as the one obtained by Templer et al. (1981), as referenced above. Templer and Arikawa (2011) conducted an

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3. From 1 January 2017 named Inland Norway University of Applied Sciences.

assessment comprising over 15 past research studies that used the PAS, and they were able to confirm the scales' validity.

### ***Data Analysis***

Significant results are reported at  $p \leq .05$  and  $p \leq .01$  levels. Demographic characteristics were investigated using the Chi-squared test for independence (gender) and independent samples t-test (age and PAS total). In order to explore the impact of nationality and gender on the attitudes toward animals total score (PAS total score), we conducted a two-way between groups analysis of variance (two-way ANOVA). To measure group differences on PAS, we used a multivariate analysis of variance (MANOVA) with a Bonferroni correction for multiple comparisons and the  $p \leq .005$  ( $p < .01/18 = p < .005$ ) is used in the analysis. In order to allow for a total score comparison, we reversed variables 4, 6, 9, 12, 13, 15, and 17 to give a uniform direction of answers. For the data analyses, we used the Statistical Package for Social Sciences (SPSS) version 24.0 for Windows.

## **RESULTS**

The two-way ANOVA revealed a significant Levene's test of Equality of Error Variances,  $F(3, 194) = 20.3, p < .001$ . This suggests an uneven variance across groups on the PAS total score. When this is significant, it is recommended that a more stringent significance level (e.g., .01) be used (Pallant, 2010). Using the significance level  $p < .01$  revealed no significant interaction effect Nationality x Gender. There was a significant effect of nationality,  $F(1, 194) = 62.4, p < .001$ , with Palestinian students reporting less positive attitudes toward animals (see TABLE 2).

### ***INSERT TABLE 2 HERE***

This difference in means (mean difference = 22.8, 95% CI: -28.4, -17.1) was substantial with a large effect size ( $\eta^2 = .24$ ). The mean item score for the Palestinian students was 4.4 (1.4), and 5.7 (0.9) for the Norwegian students. Higher scores indicate attitudes that are more

positive.<sup>4</sup> As TABLE 1 indicates, there are relatively large standard deviations in the two groups on PAS total score, which FIGURE 1 also shows.

TABLE 3 provides an overview of the results from each question. Using Pillai's trace, the overall MANOVA yielded a significant result,  $V = 0.51$ ,  $F(18, 179) = 10.3$ ,  $p < .001$ . Only questions one and two revealed no significant difference between the Palestinian and Norwegian students. As TABLE 2 shows, both groups enjoy watching their pet eating (question 1), but none of them value their pet over a friend (question 2). The rest of the questions revealed some differences between Palestinian and Norwegian students, thus contributing to the overall result. The most robust results were found for questions 6, 7, 12, and 16, with effect sizes ranging from  $\eta^2 = .16$  to  $\eta^2 = .36$ . Age did not have a significant impact on the results when we statistically controlled for the effect of age.

*INSERT TABLE 3 HERE*

## **DISCUSSION**

The Palestinian group displayed less positive attitudes toward companion animals than the Norwegian group. One reason for this may be that having companion animals is more common in Norway than in Palestine (Kristiansen, 1994). In Norway, there are many dogs kept solely for companion or recreational purposes, whereas in Palestine dogs are mostly strays or have only pragmatic or economic value, which is not conducive to the psychological closeness that humans can have for animals. As stated above about theological stance, there are also many misconceptions about dogs as companion animals.

Even though there was a significant difference between Palestinian and Norwegian students in their attitudes toward companion animals, both groups revealed more positive than negative attitudes toward pets. Despite the lack of research in Norway on attitudes toward companion animals using the PAS, other data show a high prevalence of holding companion animals in high esteem (Kristiansen, 1994). Our study's data of the answers from the Palestinian students deviate positively from what has been found in other studies regarding relationships between humans and companion animals in the Middle East (Al-Fayez et al.,

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<sup>4</sup> The terms "positive" respective "negative" scores refer to positive and negative attitudes toward companion animals. For example, a positive score on the proposition "I love pets" is "strongly agree." Likewise, a positive score on the proposition "I hate animals" is "strongly disagree."

2003; Wheeler, 2013; Phillips et al., 2012) in that the rate of the answers indicate a relatively high estimation of the value of companion animals. The data do not support significant statistical differences between men and women in the two populations, even if the total scores in the Palestinian population are somewhat higher for women than men.

One can ask why both sets of students scored so high on the scale, especially the Palestinian students with respect to cultural context. One possible explanation could be that a generally high level of education gives a higher understanding of ethics related to animals, and that positive attitude toward companion animals follow suit. More specifically, perhaps the Palestinian respondents' generally high level of education reflects a more "liberal" attitude toward companion animals.

It is also possible that students who are more educated in Islamic theology have more positive attitudes toward animals in general, and especially dogs, than what can be seen in the general population. However, the effects of education on attitudes toward animals are somewhat ambiguous. While some research has found greater concern for animals among those with postsecondary education (Olli, 2001), while other studies have found a smaller correlation between the level of education and positive attitudes toward animals and environmental concern (Johnson, Bowker, & Cordell; 2004).

The Quran and the Hadiths state relatively clearly the worth of animals and human's obligation to take care of, to protect, and to behave kindly to all animals, including companion dogs. Through exegetical studies, some modern Muslim scholars and others have found evidence that the poor treatment of animals in general and of companion animals specifically is not in accordance with the canonical texts (Al-Hafiz, 1989; Banderker, 2017; El Fadl, 2004; Warah, 2011). Yet one can observe when visiting Middle Eastern territories like Palestine that the treatment of animals with less care and compassion than is mandated in religious texts is common. While the attitudes towards animals are shaped by the education and upbringing of people, which are largely religious in the case of Palestinians, the danger posed by e.g. stray animals outweighs people's adherence to sympathizing with animals. Actually, there is a religious rule that permits the killing of that which is harmful. According to Ibn Taymiyyah if a cat attacks someone's property, s/he has the right to drive it away. If driving it away can only be done by killing it, then s/he has the right to kill it. (Ibn Taymiyyah, 1987).

Another explanation for this discrepancy is the well-known methodological problem with self-reporting survey research (Beam, 2012; Haddaway & Marler, 2005; Northrop, 1996;

Trives, 2011). People (and perhaps even the researchers) can indeed delude themselves, often creating a gap between their reported behavior and actual practice.

Though the study actually shows the Palestinian respondents' scores to be lower than the Norwegian population's, the scores from both countries indicate high concern for companion animals. For example, for proposition 18, that one "should treat house pets with as much respect" as one would with "a human member of a family," the mean score on the seven-item scale for Palestinians was five while the Norwegians' average was six. This attitude toward companion animals shows a high sense of their worth and rights, not too far from other family members. The proposition "I love pets" received the same mean scores; Palestinian 5 and Norwegian 6. This answer could indicate that both Palestinian and Norwegian students assess animals as beings on nearly the same level as humans, that is, in all circumstances as being highly regarded.

Contemporary ethological research on humans' attitudes toward sentient non-human animals, such as dogs, has shown that people generally have more empathy toward battered dogs (whether puppies or adults) than toward adult humans. Evidence provided in some studies show that people hold sentient non-human animals on the same level as their concern for human children (Angantyr, 2008; Flynn, 2011; Levin & Arluke, 2017). In cognitive ethology, there is a more general concern among humans for companion animals based on man's long history with animals such as dogs, cats, and horses (Shipman, 2010) and on companion animals' closeness to humans (Serpell, 2004). The positive evaluation of companion animals among most people, regardless of culture, age, education, and socioeconomic level, could result from the view that both animals and children are totally innocent beings. Accordingly, they invoke empathic feelings of a need to take care of them, as well as positive attitudes like love, compassion, and pity (in cases of maltreatment) (de Waal, 2009).

Even though there are significant differences between the groups, there still remains a large variation unexplained. These statistically unexplained variables may be due to, for example, the smaller prevalence of pets in Palestine, which again may affect attitudes. Palestinians are less prosperous (compared with Norway), and they may not have the means to keep animals for pleasure, which again may influence their attitudes toward pets.

A limited amount of research has been conducted in the Middle East about how people estimate animals in general and more specifically as companion animals. This lack makes it difficult to answer with certainty if there are any substantial differences between the answers of this study and other similar studies made in other areas of the region. Some references (Al-Fayez et al. 2003; Ponce de Leon, 2014; Wilford, 2017; Phillips et al., 2012; Szűcs et al; 2012) may indicate a somewhat higher estimation of companion animals in this study's population compared with others.

## **LIMITATIONS**

It is clear that that the population in this study is not representative of the population at large, either in Norway or in Palestine. The population is limited in age and represents an educated stratum. If it had been possible, the study should have incorporated demographic data about degree of religious observance. Another limitation is the age of the instrument. In addition, it would have been beneficial to use an instrument more in line with modern thoughts about the relationship between humans and animals, similar to those seen in the trans- and post-humanistic ethics and animal philosophy. We do not know, however, if any such instrument that has been both validated and reviewed actually exists.

## **RECOMMENDATIONS FOR FURTHER RESEARCH**

First, there is a need for more research on the attitudes and treatment of animals in the Middle East, as all too little has been done until now. Secondly, there is a need for larger studies with more representative groups that could be the basis for comparing different Arab populations. Thirdly, future research on attitudes toward companion animals should try to include some demographic data about the degree of religious observance. Fourthly, there has not been enough research conducted on ethical standards for the treatment of animals. Al-Hafiz, as early as 1989, debated ethical issues connected to the mass production of meat and alternative ways to produce halal-meat, but little to no research has been conducted on this topic. Fifthly, in this study, it is not provided evidence that pro-animal Islamic scholarship on attitudes toward companion animals has a demonstrable positive influence on the actual views of Palestinians. Studies directed to comparing actual attitudes toward animals are needed. Such studies, may also incorporate some sort of investigation on actual, concrete behavior

toward animals compared to self-reported degree of religious observance, or `real` observance, if that is possible to measure scientifically.

## CONCLUSION

Palestinian students, though to a slightly less degree than the Norwegian students, show a mostly positive attitude toward companion animals. The answers indicate attitudes toward companion animals as being relatively high both among Norwegian and Palestinian university students. The Palestinian students' attitudes toward companion animals are consistent with the religious canonical texts, and perhaps even in slight opposition to general practices regarding companion animals. The responses from the Norwegian students are to a high degree congruous with common western attitudes toward companion animals.

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