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Arab Children's Attitudes toward Companion Animals in Israel

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Abstract:

Many children develop empathy and positive attitudes toward animals, particularly domesticated pets. Some adopt a pet or companion animal. This article explores how these positive attitudes are created, and the role of factors such as parents' education, socioeconomic status (SES), gender, and age. It is hypothesized that personal experiences such as raising companion animals or creating emotional identification with animals through children's stories contribute to development of positive attitudes toward animals.

The study participants were 267 children, male and female, 7–9 years of age, randomly sampled from 25 Arabic language elementary schools in Israel. This is the first study conducted on this topic among this population. Participants responded to a questionnaire on the research topic and background variables.

The results confirm the hypotheses that there is a statistical correlation between being guardians for companion animals or reading stories about animals, and expressing positive attitudes toward companion animals, while parents' education, SES, gender, and age have minor effects.

Keywords: Arab children, companion animals, pets, children's personal experience, reading stories, parent's education

1. Introduction

Many children develop empathy and positive attitudes toward animals, especially domesticated pets or companion animals. Animals are considered an integral part of a child's world. Children may raise companion animals at home. They observe non-domesticated animals in their natural surroundings, on the computer, or on television. They visit zoos and petting farms. Some participate in educational activities involving animals, such as at wildlife reserves. First acquaintances with animals may occur at pre- and post-kindergarten ages. Children also read and listen to stories featuring animals as characters, and study about them in school. This may be considered a different aspect of experience with animals.

2. Theoretical Background and Literature Review

There is a large body of research on the integration between children and pets, exploring various aspects, such as which animals are most often adopted, what factors affect the decision to adopt a companion animal, and what therapeutic benefits companion animals provide for children. Children and adults tend to have different motivations for raising companion animals in the home (Archer, 1997).

Various aspects of the interaction between animals and humans have been studied, such as the contribution of companion animals toward the psychosocial development of children and adolescents (Van Houtte, & Jarvis, 1995). Research indicates varying levels of interaction between children and animals, considering the emotional, psychological, and social perspectives (Daly & Morton, 2009; Kubiato, 2012). These studies contribute to a detailed understanding of the role of animals in children's personal development, and provide cultural and clinical tools to nurture this development.

The interaction between animals and humans makes a significant therapeutic contribution to both parties. Caring for a companion animal is beneficial for human health in the short-term and long-term (Wells, 2009). People enjoy companion animals and benefit from the interaction socially and emotionally. For example, a companion animal can raise self-esteem and positive self-awareness, and reduce depression and loneliness (McConnell & Brown, 2011). Clerks with companion animals at work demonstrate reduced tension levels and improved social interactions, compared with those who do not have companion animals (Wells & Perrine, 2001).

However, a recent study finds the beneficial impacts of dog therapy among college students suffering from homesickness and stress are temporary (Binfet & Passmore, 2016). Nevertheless, there is a long-term effect on children who grow up with companion animals, which lasts into adulthood. In a study of Canadian students aged 18–21 years, those who had companion animals at home when they were children had lower levels of stress in their academic lives and greater

social skills than students who had not raised companion animals as children (Daly & Morton, 2009). Companion animals contribute to attitudes toward other animals. For example, a study conducted in Slovenia and Turkey finds that students who had a larger number of companion animals in their childhood home had a lower level of fear of snakes (Prokop, Özel, & Usak, 2009).

In the Western world, companion animals are often considered part of the family. In one study among dog guardians, 48% of the participants said they consider their dogs to be family members; 67% were carrying a picture of their dog at the time of the survey; 73% allow the dog to sleep in their bedroom; and 40% celebrate their dog's birthday (Archer, 1997). Similarly, a study conducted in Japan finds many guardians treat their companion animals, especially dogs and cats, as family members (Veldkamp, 2009). Some guardians even go so far as to bury their companion animals in special cemeteries, and grieve their deaths (Stallones, 1994). This is a characteristic of modern times, as families have become dispersed and couples have fewer children.

A survey of 400 companion animal guardians identifies friendship and a feeling of security as the major reasons for acquiring a companion animal (Lago, Kafer, Delaney, & Connel, 1988). In a study of 737 people with dogs as companion animals, the majority says they acquired dogs for the purpose of friendship (Jagoe & Serpell, 1996). A study of 975 randomly selected participants from the USA, most of them (789) women, explores the types of relationships adults have with dogs. It finds that 36% of participants claim their dogs provide them with a safe haven; 39% consider them a basis for security, 61% cite proximity maintenance (staying close to companion animals for safety reasons); and 43% turn to them in times of distress. In fact, most participants said they prefer to turn to their dogs when they are distraught, rather than turning to their mothers, fathers, brothers, sisters, or best friends (Kurdek, 2009).

Studies suggest that taking a companion animal into one's home promotes health. A study of 285 children aged 11–19 years in Slovenia, exploring the correlation between having companion animals and infectious diseases, finds that 58% of the children had cats or dogs as companion animals, and their close contact with them induced a protective response against infections, as compared to children not in close contact with companion animals (Prokop & Fančovičová, 2011). According to Morley and Fook (2005), the primary benefits of companion animals relate to emotional and psychological health, promoting social interactions, and increasing the sense of responsibility.

Research on combinations of companion animals (i.e., cats, rabbits, hamsters, rats, turtles, frogs, birds, fish) in particular environments shows that use of animals in California primary schools and kindergartens for teaching science and other fields, raises students' motivation to study (Zasloff & Hart, 2000). It has been suggested that adding elements to the formal educational curriculum that foster positive attitudes toward animals and an awareness of animal suffering from educational, environmental, and humanitarian viewpoints will encourage children to become teachers and policy-makers who create a better and more caring world (Pattnaik, 2004).

According to Raupp (1999), many parents are aware of the importance and strength of the interaction between companion animals and their children. Few (7.5%) exploit this bond in negative ways, for example, to punish their children. It is worth noting that inhuman torture and exploitation of animals are important issues, but are seldom addressed in academic studies (Raupp, 1999; Stekette et al., 2011). One study of people with high socioeconomic status (SES) reveals a dark side of dog guardianship, in which rare dog breeds with specific characteristics such as size or appearance are acquired for prestige (Beverland, Farrelly, & Ching Lim, 2007).

The other side of the relationship concerns the animal. Many companion animals enjoy interaction with humans. Positive treatment by humans leads to positive behavior in the animal. A study of 737 people with dogs as companion animals reveals that dogs are affected by their guardians' behavior toward them. Dogs' aggression levels decline when their guardians treat them warmly, for example, allowing the dog to sleep in their bedroom, or feeding the dogs around the same time as their guardians' meals (Jagoe & Serpell, 1996). Another study shows that as the level of connection increases between families and their dogs and cats, the animals' behavior improves and they become more content, intelligent, and friendly. The animals lose some of their defensiveness and become less aggressive (Serpell, 1996).

2.1. The Current Study

2.1.1. Research Aims

This study focuses on attitudes toward companion animals among Arab children in Israel. It investigates how children perceive companion animals, as opposed to how adults view them. The research elucidates potential factors that create positive attitudes toward companion animals, including personal experiences with animals and reading books about animals. It considers the impact of traits such as parents' level of education, socioeconomic status, and the child's grade level and gender on attitudes towards companion animals and on choice of companion animals currently in the home or that the child would choose to adopt in the future.

2.1.2. Research Questions

- To what extent do children's personal experiences with animals at home affect their stance toward companion animals?
- Does reading stories about animals affect the stances of children aged 7–9 years toward companion animals?
- Does gender affect choice of companion animals among 7- to 9-year-olds?
- Which companion animals do children prefer?

2.2. Study Hypotheses

- H1: The more personal experiences a 7- to 9-year-old child has with companion animals, the more positive his/her stance will be toward companion animals will be, compared to children with less or no experience with companion animals.
- H2a: A child's stance toward companion animals will not be significantly affected by socioeconomic status, parents' education, or gender.
- H2b: The more stories the children read about animals, the more positive their stance toward animals will be, compared to children who read few or no stories about animals.
- H3: Gender affects children's choice of the companion animal currently in the home, or which the child would choose to adopt in the future.

3. Materials and Methods

3.1. Participations

The study population included 267 children in first grade (138) or second grade (129). Their ages ranged from 7-9 years. They were randomly selected from 25 Arabic language elementary schools in the northern and Triangle¹ regions of Israel. The study population was relatively equally balanced in terms of gender; 132 were male and 135 were female. All of children had siblings. Slightly over half of them (51.7%) had three or four siblings at home. Half their parents (50%) had finished secondary school and a third (33.5%) had completed higher education. The SES of most of the children's families was of a moderate (46.7%) or high level (40.8%). Almost all of the children's fathers were employed (97.4%), and over half (53.2%) of children's mothers had part-time jobs.

3.2. Measures and Procedures

The children completed questionnaires with the assistance of their teachers. The teachers explained the aims of the study to the children, read the questions to them, and explained the range of answers.

Children's attitudes. The tool to measure children's attitudes toward companion animals was designed specifically for this research (see Appendix), as we found no measurement tool for assessing this issue in the literature. The research tool passed the reliability and validation pre-test conducted by three experts. Following this pre-test, some of the items were changed in accordance with the experts' comments. This version of the questionnaire, with 25 items, was administered to a pilot group of 30 children from two Arabic language schools in Israel's northern district. Based on this pilot test, the questionnaire was modified for the research population. This stage brought about a significant improvement in question formulation.

The questionnaire items include statements about attitudes toward companion animals such as: "A companion animal is useful for the house's residents." For each question, children rated their attitudes on a 3-point Likert scale (1=disagree, 2 = agree, 3 = strongly agree).

The Cronbach's alpha coefficient for internal traceability to measure the reliability of the questionnaire was high, $\alpha = 0.79$, indicating high grade stability. The scores for items 2, 4, 7, 8, 9, 12 and 17, which contain negative statements about companion animals, were reversed so that all of the items in the questionnaire represent positive attitudes. Further, the questionnaire includes questions about background variables such as grade in school, gender, parents' education, parents' employment, income, and number of siblings. It asks what type of companion animal currently lives in the home or, if the home has no companion animal, which type the child would choose to adopt in the future.

3.3. Data Analysis

Data were analyzed using SPSS programmer. To examine differences between two independent samples (i.e., gender, with or without a companion animal), we conducted a T-test. Further, we applied an F-test (Analysis of Variance - ANOVA) to examine differences between more than two groups, such as three groups based on fathers' educational level. Finally, we conducted a Pearson test to examine the correlation between children's attitudes toward companion animals and reading stories about animals.

4. Results

4.1. Children's Attitudes toward Companion Animals

Table 1 shows the means and standard deviations of the children's responses to the questionnaire items regarding their attitudes toward and experiences with companion animals. The results indicate a statistically significant difference between children with and without companion animals at home. Children with a companion animal at home express more positive attitudes toward companion animals as compared with those who do not. Thus, hypothesis 1 is confirmed.

¹The "Triangle" region refers to a concentration of Arab towns in the Haifa and Central Districts of Israel.

	No Companion Animal in The Home (N=129)		Companion Animal in the Home (N=134)		Sig
	mean	S.D.	mean	S.D.	
Children's attitudes toward companion animals	2.33	0.38	2.46	0.26	0.00

Table 1: Attitudes toward Companion Animals Among children with and without a Companion Animal at Home
 $T=3.18; P<.001$

Table 2 shows attitudes according to grade. AT-test found no statistically significant difference between children's attitudes toward companion animals according to grade level.

	Second Grade (N=129)		First Grade (N=134)		Sig
	mean	S.D.	mean	S.D.	
Children's attitudes toward companion animals	2.4	.34	2.39	.32	.77

Table 2: Children's Attitudes toward Companion Animals, by Grade in School
 $p> 0.05$

Table 3 shows the children's attitudes toward companion animals according to gender. The difference in the boys' and girls' average scores is not statistically significant.

	Girls (N=135)		Boys (N=132)		Sig
	mean	S.D.	mean	S.D.	
Children's attitudes toward companion animals	2.42	0.34	2.37	0.32	0.24

Table 3: Children's Attitudes toward Companion Animals by Gender
 $P> 0.05$
 $P=N.S$

In order to examine whether the fathers' education level is related to a differences in children's attitudes, we conducted ANOVA test. The results are given in Table 4. There are no statistically significant differences in attitudes toward companion animals among children whose fathers completed middle school, high school, or higher education. Thus, fathers' level of education did not affect their children's attitudes toward companion animals.

	Middle school (N=41)		High school (N=136)		Higher education (N=78)		Other (N=10)		F	sig
	mean	S.D.	mean	S.D.	mean	S.D.	mean	S.D.		
Children's attitudes toward companion animals	2.39	0.31	2.41	0.33	2.40	0.35	2.29	0.25	0.37	0.77

Table 4: Children's Attitudes toward Companion Animals, by Fathers' Educational Level
 $P> 0.05$

Table 5 shows children's attitudes toward companion animals according to their mothers' education. Differences between the averages among children according to their mothers' educational level are not significant. The mothers' level of education did not affect their children's attitudes toward companion animals.

	Middle School (N=29)		High School (N=128)		Higher Education (N=100)		Other (N=9)		F	sig
	Mean	S.D.	mean	S.D.	mean	S.D.	mean	S.D.		
Children's attitudes toward companion animals	2.34	0.41	2.39	0.34	2.43	0.28	2.30	0.27	0.87	0.45

Table 5: Children's Attitudes toward Companion Animals, by mother's Educational Level
 $P > 0.05$

Table 6 shows children's attitudes toward companion animals according to their family's socioeconomic status. There was no statistically significant difference between children's attitudes toward companion animals based on SES. Thus, socioeconomic status did not affect children's attitudes toward companion animals.

	Low SES (N=33)		Medium SES (N=125)		High SES (N=109)		F	sig
	mean	S.D.	mean	S.D.	mean	S.D.		
Children's attitudes toward companion animals	2.29	.40	2.40	.32	2.42	.31	2.42	.09

Table 6: Children's Attitudes toward Companion Animals, by Socioeconomic Status
 $P > 0.05$

4.2. Impact of Reading Stories on Children's Attitudes toward Companion Animals

In order to examine hypothesis 2b, a Pearson test was conducted. We found a strong and significant relation between children's attitudes toward companion animals and reading stories ($r = 0.628$, $p < 0.001$) such that the more that children read stories about animals, the more positive their stance toward companion animals. Thus, the second hypothesis is confirmed.

4.3. Choice of Companion Animal and Child's Gender

Dogs and cats were the most common companion animals for boys. However, among boys without a current companion animal, the choice for future adoptions shifted slightly to dogs and birds. Fish were among the least common choices for companion animals, both currently and as a future possibility. Among girls, the most common companion animals were cats and birds, and the least common were dogs and fish, both currently and as a future choice. Thus, the third hypothesis is not confirmed.

5. Discussion

This study validates our hypothesis that the more personal experience a child has with companion animals, the more positive his/her stance toward them will be. External factors such as socioeconomic status, parents' education, and child's gender do not have a stronger effect on children's attitudes than personal experience. A statistically significant correlation is found between children's attitudes toward companion animals and having companion animals at home. Children with a companion animal at home expressed more positive attitude toward animals than those with no companion animal in the home (Table 1).

This finding confirms the conclusions of Prokop and Tunnicliffe's (2008) study in Slovenia on three groups of children aged 5–15 years exploring the effects of adopting companion animals on children's attitudes toward popular and unpopular animals. They also found that children who had companion animals at home expressed more positive attitudes and showed more knowledge about animals in general than those who did not have companion animals. The more frequently the children handled companion animals (on a scale of 1–3), the more their positivity increased. Similarly, our finding is in line with the study by Prokop, Özel, and Usak (2009) among students from Slovenia and Turkey, which finds that the experience of caring for companion animals contributes to participants' positive attitude toward unpopular animals such as snakes. A group of 18- to 21-year-old students from Canada who, as children, had a dog, a cat or both as companion animals, showed less stress and better social skills than students who did not have childhood companion animals (Daly & Morton, 2009). This finding further reinforces the importance of personal experience in creating benefits for children.

There is no statistically significant difference between children's attitudes toward companion animals by gender (Table 3). Similarly, Prokop and Tunnicliffe (2008) find no association between gender and attitudes toward or knowledge of companion animals among their study participants. Although they do not assess the number of companion animals owned by the participants, their finding strengthens our suggestion that there is no association between gender and attitudes toward or knowledge of companion animals. Our hypothesis regarding differences between type of companion animal and gender is not validated. Choice of concurrent or future companion animals is not found to be gender-dependent. Boys' and girls' companion animal choices did not differ significantly.

However, Prokop and Tunnicliffe's (2008) study finds that girls aged 10–15 years in Slovenia were guardians for more companion animals than boys were. Regarding the effects of adopting companion animals on children's attitudes

toward popular and unpopular animals, they find that girls took a more positive stance toward popular animals, such as rabbits and squirrels, and a less positive stance toward non-popular animals as compared to boys. Boys expressed more positive stances toward wolves than girls. A less positive attitude toward dangerous or disease-causing animals seems to be characteristic of girls.

In the study by Prokop and Tunnicliffe (2008), the most common companion animals in the category most relevant to our study (5- to 10-year-olds) were dogs, cats, birds, and poultry. In the study by Wells and Perrine (2001), 74% of the participants had dogs as companion animals, and only 34% had cats as companion animals. In a study exploring visual acquaintance with animals and fear in 27 kindergarten-aged children (5–6 years old) in the Czech Republic, three common animal choices are dolphins, dogs and cats. The children stated that they love dogs and cats because they are beautiful and cats have velvety fur. No differences are found between ages or genders (Kubiatko, 2012). These studies are relevant to our finding, in that they indicate a universal type of choices among children. However, these results differ from the study of Stekette et al. (2011) on the acquisition of companion animals by adults, which found that adult women prefer cats to dogs.

Girls' sensitivity to animals is measured in terms of grief at a companion animal's death by Brown, Richards, and Wilson (1996) who find that girls are more apt to express sadness than boys. Israelis have been found to be one of the nationalities who are likely to cry when a companion animal dies (Williams & Morris, 1996).

According to the findings shown in Tables 4–6, there is no significant association between positive attitudes toward companion animals and parents' education, or socioeconomic status. According to Prokop and Tunnicliffe (2008), the probability of having companion animals in the home is higher among children whose parents have a higher level of education. In our research, we did not measure the association between having companion animals and parents' education, but we did measure the connection between positive attitudes toward companion animals and parents' education. The finding of SES not being significantly associated with children's attitudes toward companion animals might be due to the fact that this factor is regarded as an external effect. Only personal experiences were found to affect the children's attitudes. Families in the Arab sector in Israel do not tend to spend significant amounts of money on companion animal paraphernalia, and most of the food they give to the animals consists of leftovers from family meals. Thus, a high SES is not a prerequisite to owning a companion animal. Our second hypothesis is also confirmed: reading stories about animals represents an aspect of personal experience, and children who read stories about animals have more positive attitudes toward companion animals compared to those who read fewer or no such stories. In general, these stories present animals as likeable, positive characters. Readers, especially children, feel empathy toward them. Studies indicate that people who show empathy toward others and are open, pleasant, and self-aware, tend to show more positive attitudes toward companion animals as compared to individuals who do not have these characteristics (Erlanger & Tsytarev, 2012).

Some studies find that the transition from the imaginary world of animals portrayed in stories or films to the real world may be problematic. Children regard animals in stories and films differently from real animals. In the stories, animals are heroes. They talk, have superpowers, and fall in love. This may affect the child's comprehension of the reality of animals. It may cause problems and result in suffering for companion animals that do not meet the child's expectations, which are based on fantasy or the media (Anderson & Henderson, 2005). In this study, we did not consider films or other elements of the imagination as variables. The questions regarding reading stories were general and did not touch on the details associated with the child's imaginary world.

6. Conclusion

This study explores three hypotheses. The first predicts a significant association between children's positive attitudes toward companion animals and their personal experience with them. The second predicts a significant connection between reading stories about animals and a positive attitude toward companion animals. The third predicts that the type of companion animal owned or selected for future guardianship would be related to the child's gender.

Our survey of 267 Arab children from the northern and Triangle areas of Israel confirms these hypotheses. A statistically significant connection was found between raising companion animals at home and a positive attitude toward them. Children with companion animals at home expressed a more positive stance toward animals than those without companion animals in the home. This indicates the contribution of personal experience in raising companion animals to creating a positive stance toward animals in general and companion animals in particular.

In addition, reading stories about animals creates a type of personal and emotional experience in the child's mind. Children who read more stories about animals expressed more positive attitudes toward animals than those who read fewer or no such stories.

Choice of companion animal is not dependent on the child's gender. Dogs and cats were the most common companion animals for both. Boys said they prefer dogs, cats, and birds, while girls said they prefer cats and birds. This research was conducted in Arab society in Israel. Future research can extend exploration of this topic. For example, there could be a comparison between attitudes among children in Arab and Jewish society in Israel, or the study may be extended to other cultures. Future studies may examine children at other ages or levels of schooling. Further, future studies may examine if positive attitudes toward companion animals decrease violent behavior, specifically among adolescents.

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Appendix

Questionnaire Items on Attitudes toward Companion Animals

- A companion animal brings joy and delight to the house.
- A companion animal ruins the house's belongings.
- A companion animal is useful for the house's residents.
- Animals' normal habitat is either in nature or zoos, not houses.
- A companion animal is a friend of his/her guardian.
- Raising companion animals is a great delight.
- Companion animals are dirty and spread diseases to children.
- Raising companion animals is a waste of time.
- Raising companion animals is financially expensive.
- Keeping companion animals enhances children's feelings of sympathy.
- Keeping companion animals enhances children's sense of responsibility.
- Having companion animals at home could be harmful for children.
- I treat my family members and companion animal equally.
- When having a companion animal, we don't feel lonely.
- When we feel upset, we can talk to our companion animal and be comforted.
- Keeping companion animals helps me explore scientific facts about them.
- I punish my companion animal when I get angry.
- Companion animals have feelings and I respect them.
- I can understand companion animals and meet their needs.
- I like treating my companion animal nicely.
- Keeping companion animals enhances thinking abilities.
- Keeping companion animals teaches me facts about animals' world.
- Were you inspired by stories to love a specific type of companion animal?
- Were you influenced by stories to keep a companion animal at your house?
- Were you motivated by stories to be sympathetic and caring toward companion animals?