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PRESCHOOL CHILDREN'S PERCEPTIONS

OF

DOGS AND CATS AS PETS

by

Roberto F. Reyes

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Child Development

Approved:

Major Professor

Committee Member

Head of Department

Committee Member

Dean of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah

1969

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Roberto F. Reyes



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ABSTRACT

Preschool Children's Perceptions

of

Dogs and Cats as Pets

by

Roberto F. Reyes

Utah State University, 1969

Major Professor: Dr. Jay Schvaneveldt
Department: Child Development

The perceptions of dogs and cats as held by children were studied in six areas of interest. The subjects were twenty-one males and twenty-one females ranging in age from 3 years 3 months to 5 years 0 months selected from the Utah State University Nursery School. Responses to six areas of interest: identification, sex characteristics, love and affection, companionship, and therapeutic value, were elicited during interviews using a color picture of a mature German Shepard and mature Siamese cat as visual stimuli. A telephone interview with one parent of the subject was made to assess pet contact of the subject.

Little difference was found between males and females and their perceptions of the animals. Females, however, were found to be more aware of sibling relationships of the animals than were the males, and were, in general, more verbally responsive. Little difference in perception was found between the older three and four year old subjects. A significant difference was found between the age groups in relation to the animals being friends and playmates with the older subjects stating that the animals could be their friends and playmates more often than

the younger subjects. Those subjects who were assessed as having high pet contact were found in general to be less responsive than those with low pet contact.

The types of responses given by those subjects with high, medium, or low pet contact, not controlling for sex or age, were found not to differ significantly. However, those with high pet contact in the area of sex characteristics evidenced a lesser degree of knowledge about from where the babies of the animals came.

In general the findings gave support to the conclusions of other authors that a dog as a pet may be perceived as a therapeutic device.

(52 pages)

INTRODUCTION

Origin of the Problem

"A man's best friend," a saying that perhaps has more meaning than it would seem, is one which few would fail to relate to a dog. But what is a dog man's best friend? Does a dog rate higher than a person, or as a close companion? Would a dog be more likely to be sympathetic to a man's problems and offer condolence in time of sorrow? Did the saying emerge out of a dog's unending devotion to a master without so much as a whimper? To understand more fully why an animal could be man's best friend, it was the purpose of this research to gather descriptive data concerning children's perceptions of a dog and cat and to determine if sex, age, or pet contact of the children were differential variables.

The saying originated in Alaska for dogs, especially those of the Central Eskimos. They developed such high devotion towards their master that they would not work for any other person and would be beaten to death rather than give in to the command of someone else. The dogs are still used in hunting musk ox and polar bear and are used for finding breathing holes of seals in the ice. For centuries the only domestic animal available to the Eskimos were dogs, and as such, were developed into a utility animal for pulling sleds and hunting. (Leach, 1961)

From the first use of the dog as a hunter and slave grew the use of him as a family pet to be loved and petted. He is as often treated with love and affection as he is with anger but has the ability to take mistreatment from persons in the family and still retain his temper.

The story about the father coming home from a hard day's work and getting mad at his wife for not fixing supper, causing her to get mad at the child who goes outside and kicks the family dog, is a story which illustrates one of the utilities of the dog. Before the dog was kicked by the child he might have been his playmate in a chase game with a stick, but then he turned into a therapeutic object for the child to release his frustrations. Thus, the dog has served two very different purposes, and probably without holding any personal grudges, will wag his tail later and again be a playmate for the child.

If the child is the sole owner of the dog or cares for it most of the time, he will be the master of the dog. He may take pride in brushing and washing the dog and making it look nice for himself and his friends. He may even want to show off his dog as a reflection of the time he has spent grooming his dog. He may even have the type of dog that can be trained in a special manner such as for hunting, showing, or for doing tricks. Training the dog in any one of these areas requires time of the trainer, an incentive, and the responsibility of completing a small task.

The responsibility which accompanies owning a dog also takes the form of giving it enough food and water once or twice a day, making sure it will not get lost, looking for it when it does get lost, toilet training it if it is a house dog, and many other small responsibilities. If a child is presented with a small responsibility of feeding a dog or taking it for a walk, it is believed that this might be a foundation for further degrees of responsibility. The responsibilities could serve as a training ground for a child's character development. In fact, many parents believe children feel a sense of accomplishment and pride over

the responsibilities given to him with the ownership of a dog. If the child is happy, he may reflect his happiness towards his dog in their relationship as master and pet.

The relationship between a dog and its master, whether male or female, may be one of love and affection. This close relationship is evidenced when the dog sees his master and he runs to him wagging his tail, and the master in turn pats the dog on the head and talks to him as if he were human. Another distinctive type of relationship between a dog and its master may be seen when the family car pulls out of the driveway and the family dog is either sitting in the car or chasing it. The relationship seen between the dog and his master is usually, therefore, one which is easily noticeable due to the status of the dog in our society, but the type of relationship seen between other domestic animals and people may not be so clearly defined.

The cat, a common household pet, is not usually referred to as man's best friend. This may possibly be true because there might exist a different type of relationship. However, by nature, the cat is a nocturnal creature and seems not to react to the presence of an individual as a dog does with tail wagging, jumping, and barking. Although a cat may be trained to do tricks, its versatility and utility as compared to a dog is somewhat less. Therefore, the owner of a cat may not think of his pet in the same manner as the dog owner and may not treat him with the same feeling and understanding.

Authors such as Bossard (1944, 1950), Sullenger (1960), and Foote (1956) write that pet owners perceive their pets in a variety of ways. They suggest that some owners, especially young children, perceive pets in such a way that they serve a therapeutic function in that they are

able to take out their frustrations on pets, or that they are able to express affection towards a pet that they could not otherwise express towards a human. The authors believe that children may perceive pets as companions or as playmate substitutes. Their conclusions are based on their personal observations as parents, professionals, and laymen, and, therefore, might not be applicable to all children regardless of age, sex, or type of pet owned.

Hypotheses

1. There is no significant difference between males and females concerning perceptions of the dog and cat.
2. There is no significant difference in the perception of pets between the age group of 3 years 3 months to 4 years 3 months and age group 4 years 4 months to 5 years 0 months.
3. The number of responses from subjects with high, medium, and low pet contact is not significantly different.
4. The type of responses from subjects with high, medium, and low pet contact is not significantly different.

REVIEW OF LITERATURE

Economic Importance

Little attention has been given to the area of family pets and the impact they have upon family members at various stages of the family life cycle. The lack of research in this area may, among other things, reflect an attitude by researchers in family living and child development that pets in the family are of little significance. But economically speaking, there is not a lack of interest in owning a pet.

Foote (1956) reported that in 1953 the dog population in the United States of 22.6 million and growing at a rate of 900,000 per year. Fox (1965) found that of the families in the United States, over 40 per cent have a dog. The larger dog being more popular in rural areas and the smaller in the cities. Forbes Magazine (August, 1968) and Advertising Age (September, 1965) reported that in 1962 the pet business sales topped one billion dollars, and in 1967, two billion dollars. Manufacturers of dog foods grossed \$843 million, with a balance of \$2 billion from businesses of gourmet foods, accessories, toys, and sales of pets. The pet business included pet wardrobe services such as Canine Styles in New York and Canine Shield, a national insurance policy which pays veterinary bills up to \$100 and accident insurance for premiums of \$18 per year. There are also dog walking services for \$15 per week and funeral arrangements at the Marble Hill Crematory in New York which include pick up, funeral service, cremation, and delivery of the ashes for \$55.

The Family and the Pet

The boom in the pet field is due to what manufacturers call "humanization" of pets. As such, the dog, especially, is assuming the role of the child in the family by first being a puppy and a toy, then a baby, and finally an adolescent who is as yet unable to take complete care of himself. The boom in the field is reflected by the 19.5 million households which now have dogs. (Anonymous, 1968)

Not only is interest in pets reflected through the animal population but also in organizations specifically for pet owners. Foote (1956) noted that the Society for the Prevention of Cruelty to Animals was founded before the Society for the Prevention of Cruelty to Children which, interestingly enough, was founded by the same man. He also indicated the interest in pet ownership evidenced in fiction and nonfiction books in a prominent Chicago Bookstore, Brentano's, which had over a hundred nonfiction titles and fifty novels with dogs as heroes. He also pointed out that if pet ownership is economically important, it is equally important in terms of interaction between the owner and the pet. If human development is based upon interaction between the self and significant others (others being family members) including a dog, then the dog has been the neglected member of the family in research.

The importance of the dog in the life cycle of a family was demonstrated to Bossard (1950) after he had written an article on "The Mental Hygiene of Owning a Dog". In a five year period he received over 1,000 letters from journalists, educators, psychiatrists, neurologists, physicians, parents, children and one high-ranking government official. One article written by a New York journalist expressed a "tongue in cheek" attitude, but all of the letters received reflected the attitude

that pets are indeed an integral part of family life and must be considered as a basic implement in mental health. After several years of observation he concluded as a parent, layman, and sociologist that there were many ways a dog could contribute to the mental hygiene of a person.

Pets in Therapy

Using dogs for therapeutic purposes has not been a contemporary idea. As early as 1800 at the famous Retreat at York, England, pets were considered to be of therapeutic value. (Siegel, 1962) The value to a child, especially a disturbed child, in owning a pet or being in contact with a pet may be due to the child's need for a love object he can safely love and not "lose face" in loving it. The disturbed child does not want something that will talk back and ridicule or judge him. He needs something that is obedient, faithful, and incapable of questioning his actions. (Levinson, 1963) Pet therapy for schizophrenic children is valuable in that this type of disturbed child is withdrawn and wants no further contact with those around him. He is unable to trust anyone and, as such, needs someone or something in which he can place his trust and confidence. For this child, a dog is the answer to his problem. He will not betray the child's confidence and will be faithful and loving towards his master, and the child may be better able to communicate with the dog than people. (Siegel, 1962; Levinson, 1962)

It is believed that the psychological importance of a dog which emerges contributes to the mental health of a person. Bossard (1944) notes that a dog is an outlet for affection which in many people is inhibited by social pressures in a society that is growing more and more impersonal. It is believed that children who have a dog in their family benefit greatly through the type of responsibilities created by its

presence, such as feeding, watering, walking, making its bed, finding it when lost, and protecting it from the neighbor's bully dog. A dog can act as a socializing agent. For example, after the neighborhood children give a dog a bone, the owner comes out of the house to thank the children, and thus, a friendship arises. The dog can also be a vehicle for sex education in that external physical characteristics may be discussed regarding sex, which give it the proper "way of life" connotation. (Bossard, 1944; Levinson, 1963)

Meuiner (1958) and Rosenberg (1958) reflect in their writing that pets, whether dogs or cats, can function to create areas of interest in the family through projects for the children. Programs mentioned were Boy Scout and Girl Scout merit badge programs, obedience clubs, scrap books of animals and additional library readings about their pets.

Children's Perceptions

The literature on pets and their importance has been written from the viewpoint of the parent, educator, and layman regarding their perceptions of the pet in the family and as a tool for therapy. Although the conclusions in the literature seem logical, there has been no empirical basis for the conclusions. Children's perceptions are different from those of an adult and the child may perceive pets in a different manner.

Sears, Erickson, and Piaget (Maier, 1965) agree that perception in the human is selective and dependent upon readiness and differential developmental experiences. The individual is able to relate his perspective of a situation to his previous developmental experiences and thus reformulates his perception. If perception is dependent upon previous experiences, the adult with more previous experiences will

have more perceptions that are more highly differentiated than those of the young child. Thus, adults can be expected to hold differing perceptions than young children due to experiences alone.

Children may not be concerned with the responsibilities of owning a pet or may not care that a pet is an instrument for learning. Furthermore, young children may not be able to perceive a pet, where it comes from, what it does and its use. Also, it is not known if children attach human characteristics to pets as adults often do. It is evident that research in regard to young children's perceptions of pets is needed in order to completely understand and make judgments in this area, and it has been for this purpose that this research has been undertaken.

PROCEDURE

Sample

The sample consisted of fifty males and females enrolled at the Utah State University nursery school during the winter quarter of the school year 1969. Children enrolled at the nursery school live in Logan, Utah and come from middle and upper middle socio-economic levels. Some children come from homes where the parents are enrolled at Utah State University.

There are six laboratory sections, each with an enrollment of twenty children, ten boys and ten girls. One lab section was specifically designed for university students who wished to have their children in nursery school. The remaining five lab sections include children from the student population, townspeople and university professors. Children are selected from all sections according to a waiting list compiled from applications made by parents.

In a systematic random fashion, 25 males and 25 females were selected from 120 subjects in the 6 lab sections from alphabetical lists of children in each lab section. To make the selection of subjects systematic and random, the numbers 1 and 2 were written on separate slips, placed in a hat, and one drawn out. The number drawn was 1. On each of the 6 lists of names, beginning with the first name on the list of males and females, every other name was selected until 25 males and 25 females had been chosen. A final sample of 21 males and 21 females was used.

The range of age in the female sample was from 3 years 3 months to 4 years 10 months and in the male sample from 3 years 7 months to

5 years 0 months. The mean age for the girls was 4 years 0 months and for the boys 4 years 4 months. The median age was 4 years 2 months for the girls and 4 years 1 month for the boys.

Instruments

Data for the research were collected by the use of an interview schedule constructed by the writer. Two pictures serving as visual stimuli were used in the interviews. Each interview was recorded on a tape recorder. Interviews of the subjects were conducted in a small room adjacent to the parent entrance to the nursery school, used by the nurse during the morning check-in. The interviews were conducted during the times the nursery was in session and after all the children had been checked in and the room was not in use.

A color picture of a mature German Sheperd was used, with natural coloring of grey, light brown, and brown. The dog was in a lying position, ears and head erect, looking to the front and left of the photographer, and in a side position. It had a visible chain collar around the neck. Background consisted of a brown couch and grey rug. The eight-inch by ten-inch glossy finished picture was mounted on cardboard.

The picture used for the cat was a mature Siamese cat with a small bell around the neck. The cat had a light brown body and dark brown face, ears, tail, and feet. The cat was in a crouched position looking directly forward and to the left of the photographer. Background was a brown couch and light brown rug.

The interview schedule, as constructed by the investigator, consisted of open-ended and yes-no items. Six categories were chosen and items were constructed to reflect these areas. The categories were as

follows: identification, sex characteristics, love and affection, companionship, therapeutic value, and responsibilities (see Appendix I). The categories were chosen in relation to fifteen areas discussed by Bossard (1944) in a paper which summarized his case studies and observations of the importance of domestic animals in the family life cycle. These areas served as a basis for the interview and the respective categories in this study were: sex education (sex characteristics), outlet for affection (love and affection), development of responsibility (responsibilities), companionship (companionship), and human longing for power (therapeutic value). Included in the interview schedule was the category identification, which was not included in Bossard's discussion, but was considered necessary by the investigator as an additional area for evaluation.

Pretest

The six areas mentioned above were chosen by the investigator as areas in which items could be presented in relation to the hypotheses. The number of items was limited to 23 following a pretest of 50 original items. These pretest interviews were conducted with males and females not included in the main sample. Only items which elicited the greater number of diverse responses in the pretest were chosen. The interview schedule was used both for the picture of the dog and cat and was no longer than ten to twelve minutes. It was felt by the investigator that the attention span of each subject would not be longer than ten to twelve minutes.

Validity

Content validity of the questionnaire was established by nine members of a graduate seminar in family research. Approximately fifty items were judged as to their validity in relation to the six categories used in the instrument. Twenty-three items were chosen for the instrument.

Interviewing Technique

Before the subject was brought to the room, a small chair was placed approximately four feet in front of the table. The picture of the dog and that of the cat was placed face down on the table so the subject could not see the picture and respond before the recorder was turned on. A low bench was placed parallel and to the left of the child where the interviewer sat. To be consistent during the interview, a copy of the interview schedule was taped on a door to the right of the child so when the researcher looked toward the child's face, the items could be read. Thus, to the child, it appeared that the interviewer was looking directly at him while presenting the items. During the pretest, several methods were tried and this procedure proved to be the most practical and consistent. There was less chance of the interviewer to forget the items, change the order of the items, communicate to the subject a low degree of interest, and otherwise create a less reliable technique.

Because of some of the childrens' participation in "tadpole" swimming lessons for preschool children, the investigator knew some of the children by way of his role as the swimming instructor. Weekly contact through swimming lessons established a friendly rapport between the subjects and the investigator. As part of the course work graduate

students are required to spend time in selected sections of the laboratory. Therefore, contact with other subjects as a graduate student in the laboratory sections was made during the quarter preceding that of the research.

These previous contacts with a few of the subjects helped establish a rapport making it easier to complete the interview with them. They seemed more spontaneous in the ability to verbalize and less resistant in responding to the items. It was felt that there was a difference in a few of the subjects' responses, but generally, most of the subjects reacted in the expected manner.

When the interviewer came into a laboratory for the first time, he was introduced as a visitor who had some pictures in another room that he was going to show to the children if they were asked. Children who were more familiar with the investigator were taken out first, one at a time, to the experimental room. Upon entering the room the child was told that the small chair was for him to sit on so he could see the pictures better. As the interviewer sat down, the tape recorder was switched on and the picture of the dog was placed on the table. The interview would continue until the 23 items were covered. After the last item was presented pertaining to the picture of the dog, it was removed and placed face down on top of the table and the picture of the cat was placed in a similar place on the table edge. The interview schedule was repeated for the cat.

Items were presented once and a pause for a response was given. If no response was given, the item was presented again, and another pause was given for a response. If again no response was given, the next item was presented following the same pattern.

When the interview was concluded, the child was taken back to the room to join the ongoing activity. The teachers had been asked by the investigator to comment on the subjects' return loudly enough so that other children in the room could hear. It was felt necessary to do this to create a feeling of uniqueness about going out to see the pictures. Thus, when other children who were less familiar with the investigator were asked if they wanted to go see the pictures, they would feel more inclined to go with him. Each child was approached by the question, "Did you get a turn to see the pictures I have?" If the child seemed reluctant, the head teacher would assure him that it was "OK" to see the pictures. If the child was not reluctant to go and said "yes" to the invitation, he was told to go ask the teacher if he could have a turn to see the pictures. The teacher would give her permission and the child would go out for the interview.

Parent Interview

A telephone interview with one parent of the subject was made after the child had been interviewed. The interview consisted of seven questions directed to the parent answering the phone to determine previous and present pet contact by the child in his family and neighborhood (see Appendix II). Responses were recorded for each parent interviewed.

Definition of Terms

High pet contact--those subjects with a dog or cat in the home for more than a year and who had weekly neighborhood pet contact.

Medium pet contact--those subjects with weekly neighborhood pet contact and also who had smaller pets in the home, such as fish, turtles or birds.

Low pet contact--those subjects with only small pets in the home, such as fish, turtles or birds and no other pet contact, and those subjects with no pet contact whatsoever.

High response group--those who responded more than 35 times per interview.

Low response group--those who responded less than 35 times per interview.

Chi square critical levels-- $.05 = 3.84$ and $.01 = 6.64$.

FINDINGS

Items chosen for statistical analysis which required a yes or no answer were:

Items

- 7 Does it have a mommie or daddy?
- 8 Does it have any brothers or sisters?
- 14 Could it be your friend and playmate?
- 17 Would it listen to you talk if mommie or daddy wouldn't?
- 18 If something were wrong, would you tell it?

Chi square was used in the item analysis of the seven items in relation to hypotheses one, two and three. Item analysis using chi square was used on items nine, nineteen, and twenty for hypothesis four.

Hypothesis One--Sex

Hypothesis 1: There is no significant difference between males and females concerning perceptions of the dog and cat.

Figure 1 presents responses to the picture of the dog during the interview using percentages of yes and no responses by all males and females for the five items. In the area of sex characteristics on the interview schedule, although showing no statistical significance at the .05 level, items seven (chi square = .40) and eight (chi square = 3.09) were highly responded to, with only one male saying he did not know and one female not responding to item seven. One female did not respond and two females said they did not know in response to item eight. Of the remaining responses to item eight, 80 per cent of the females and 52 per cent of the males said it did, showing that more females than

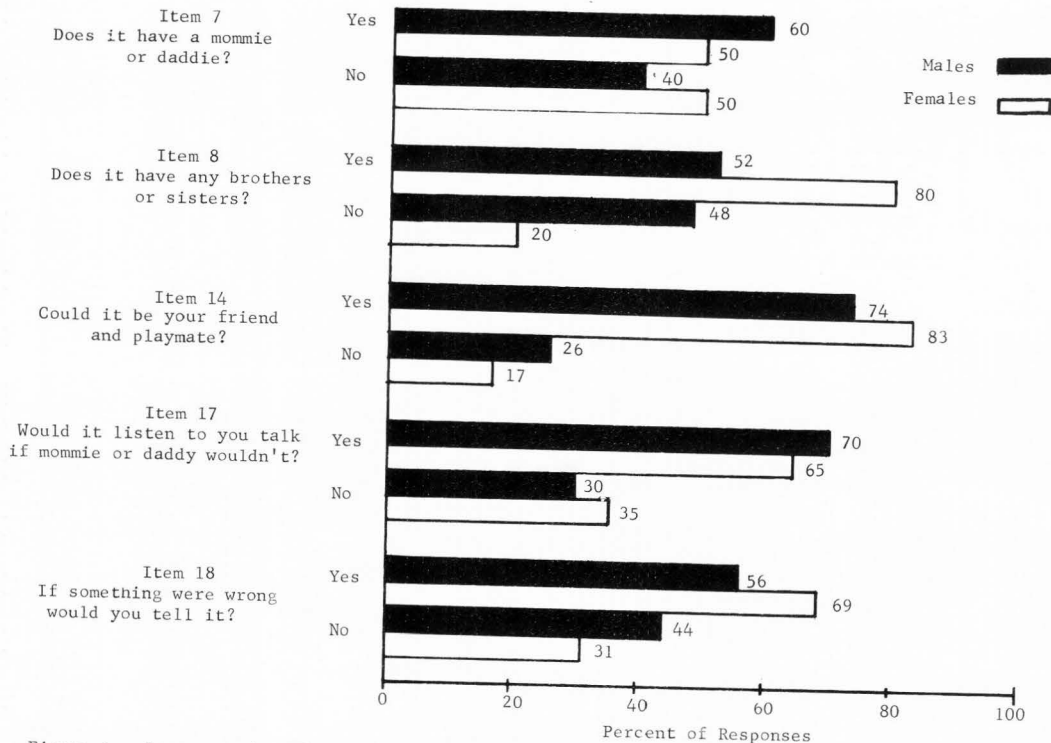


Figure 1. Responses by males and females during interview with picture of dog.

males thought the dog had brothers or sisters.

Responses to item 14 showed that 83 per cent of the females and 74 per cent of the males said it could be their friend and playmate. In a similar fashion, 69 per cent of the females and 56 per cent of the males responded yes to item 18.

While viewing the cat a larger percentage of both boys and girls responded with yes than when viewing the dog when asked item 18. Of the males, 79 per cent responded with yes, as did 84 per cent of the females, while 69 per cent of the females and 56 per cent of the males responded similarly when shown the dog picture (see Figures 2 and 3).

In Figure 3, responses by the subjects to both pictures have been combined to show a general pattern of responses, with the exception of item 8. Item analysis showed significance at the .01 level with a chi square value of 6.87. The females responded yes 82 per cent of the time while the males responded yes 51 per cent of the time. In separate analysis of the item about the cat and dog, the females followed the same pattern, that of responding yes a higher percentage of the time than the males. Of the five items analyzed, a smaller percentage of the females responded no to the above item, meaning that only a few females thought the dog and cat could have brothers and sisters. As shown by Figure 3, with the exception of item 8, responses by males and females were strikingly similar in yes and no responses. On the basis of these data, the null hypothesis of no difference in regard to sex cannot be rejected.

Hypothesis Two--Age

Hypothesis 2: There is no significant difference in the perception of pets between the age group of 3 years 3 months to 4 years 3 months and age group 4 years 4 months to 5 years 0 months.

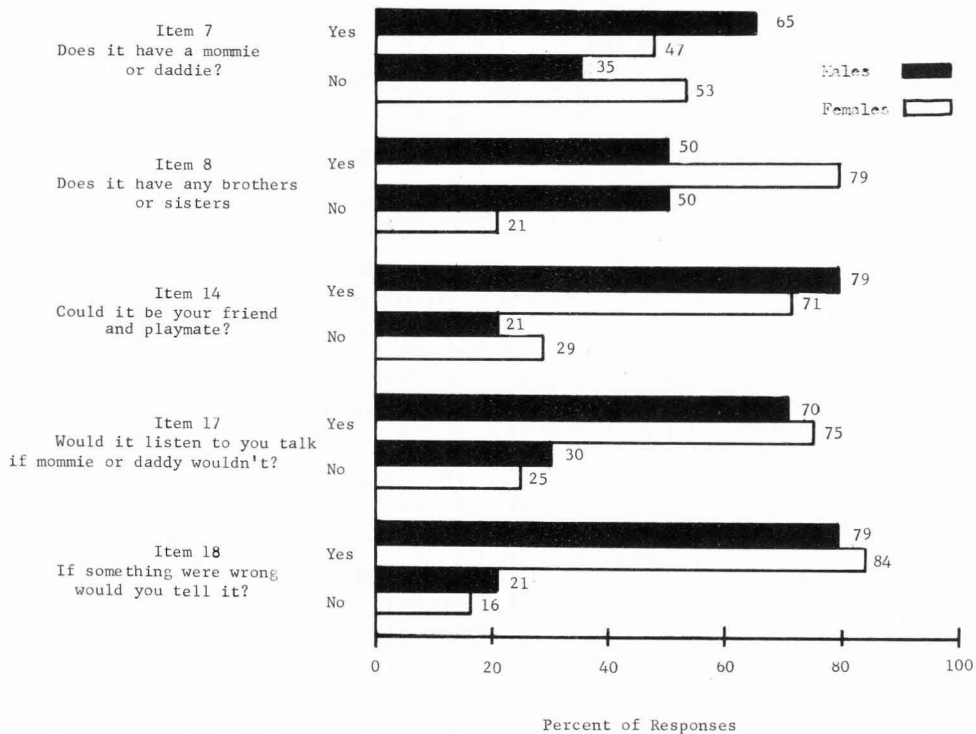


Figure 2. Responses by males and females during interview with picture of cat.

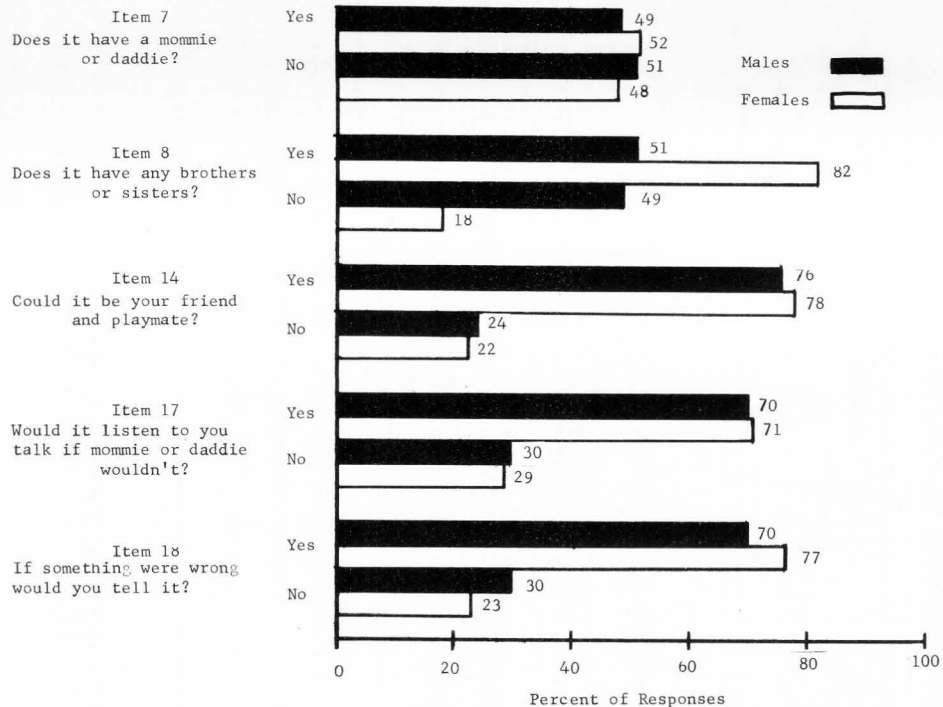


Figure 3. Combined responses during interview with cat and dog pictures by males and females

To analyze the five items, the subjects' responses were divided into a young-age group and older-age group. Percentages of yes and no responses for the age groups for the combined interviews with the picture of the dog and cat are presented in Figure 4. The findings were significant at the .05 level with a chi square value of 5.10 for item 14. Of the older-age group 89 per cent responded yes and of the younger-age group 70 per cent responded yes.

Responses to item 7 were not found to be significant (chi square = 1.64). Of the older subjects 67 per cent said the animals had mommies and daddies, while 55 per cent of the younger subjects said the animals could have mommies or daddies. To item 8, 57 per cent of the older and 65 per cent of the younger subjects said the animals did. The difference was not significant at the 0.5 level (chi square = .41).

Responses to item 18 were found to be significant at the .05 level with a chi square value of 6.08. Of those older than 4 years 3 months, 89 per cent said they would tell it, if something were wrong, while only 63 per cent of those younger than 4 years 3 months said they would. Item 17, which is related to item 18 in that speech to the animal is indicated, showed that 70 per cent of the older and 67 per cent of the younger subjects said the animals would listen to them talk, if mommie or daddy wouldn't. Although both items are related to communicating with the animals, the instances where the communication would occur are not similar. In item 17 the subject had a choice of someone to talk to if mommie or daddy wouldn't listen, while item 18 left no choice to whom the subject would communicate, only asking if he would talk to it. On the basis of all the above data, the null hypothesis of no difference between age groups cannot be rejected.

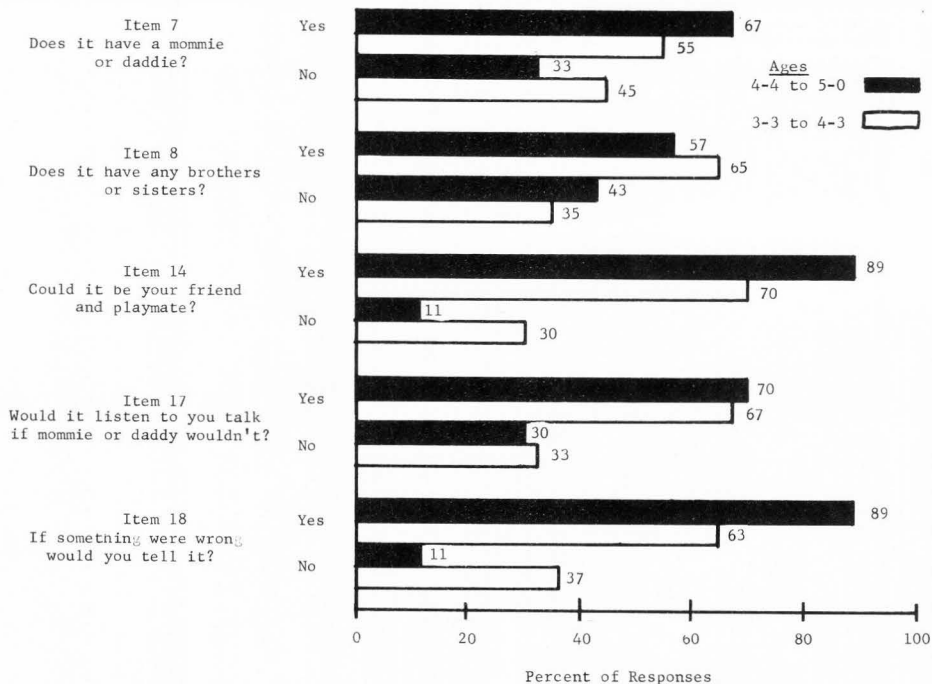


Figure 4. Combined responses during interview with cat and dog pictures by age group 3 years 3 months to 4 years 3 months and age group 4 years 4 months to 5 years 0 months

Hypothesis Three--Number of Responses

Hypothesis 3: The number of responses from subjects with high, medium, and low pet contact is not significantly different.

Figure 5 shows a comparison of subjects with more or less than 35 responses. It may be seen that 56 per cent of those responding more than 35 times were in the low pet contact group while 24 per cent were in the high pet contact group and 20 per cent in the medium pet contact group. In the group that responded less than 35 times, 31 per cent of the responses were made by those in the high pet contact group, 51 per cent by those in the low pet contact group, and 18 per cent in the medium pet contact group. The differences were not significant at the .05 level (chi square = 2.73), although it should be noted that those subjects in the low pet contact groups had a higher response pattern. Therefore, the null hypothesis of no difference between the number of responses and pet contact groups cannot be rejected.

Hypothesis Four--Type of Responses

Hypothesis 4: The type of responses from subjects with high, medium, and low pet contact is not significantly different.

The following items were analyzed by chi square and found not to be significant at the .05 level:

Items

- | | |
|----|---|
| 9 | Where do its babies come from? (chi square = 3.27) |
| 19 | If you were mad at mommie or daddy, what would you do
to it? (chi square = 2.76) |
| 20 | Who feeds it? (chi square = 1.69) |

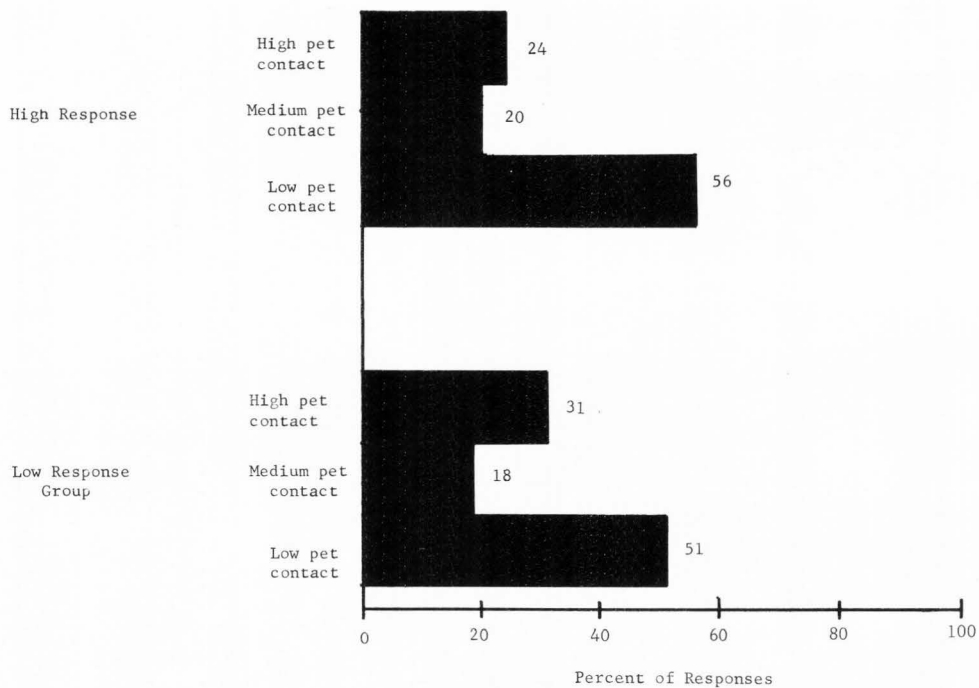


Figure 5. Responses by high, medium, and low pet contact subjects in high and low response groups

In regard to item 9 total responses were taken for all subjects during the interview with the dog and cat pictures and categorized as indicating a part of the body (stomach, tummy) or the body and elsewhere. Of those in the low pet contact group 85 per cent said the babies came from a body part or body of the animal while 15 per cent said they came from other places, such as the hospital, bed, Logan, and a store. Of those in the high pet contact group 58 per cent said the babies came from the body while 42 per cent said they came from places such as far away, the hospital, and a barn. The responses were not significantly different at the .05 level.

Responses from item 19 were categorized as aggressive or non-aggressive. Of those in the low pet contact group 73 per cent responded with nonaggressive responses while the remaining 27 per cent responded aggressively. Of the high pet contact group 50 per cent responded aggressively and 50 per cent nonaggressively. Aggressive responses for both high and low pet contact groups included: "I'd be mad at him," "throw it away," "make him bite them," "shoot him," "my daddy would shoot him with a gun," "put him in a cage," and "let him scratch them". Examples of nonaggressive responses were: "I'd love him," "feed him," "I'd pet him," "nothing," "let it outside," "take him for a walk," and "play with him".

Item 20 asked, who feeds it? And, although it was not significant at the .05 level, it is interesting to note that of the group of high pet contact subjects who said mommie and/or daddy, or themselves, 84 per cent said mommie and/or daddy would feed it, while the remaining 16 per cent said they themselves would. Of the low pet contact group 67 per cent said mommie and/or daddy would feed it and 33 per cent said

they would feed it. On the basis of these data, the null hypothesis of no significant difference between the type of responses from the high, medium, and low pet contact groups cannot be rejected.

Summary of Findings

From the data collected it was concluded that females were more responsive to the items of the dog and cat rather than one particular animal. More females than males said the dog had brothers and sisters, that the dog could be their friend, and that they would tell the dog, if something were wrong. A greater percentage of females said they would tell the cat if something were wrong than did the males. In general, items in the area of sex characteristics were more highly responded to when referring to the dog rather than the cat. When responses to the cat and dog were combined, more females than males said the animals had brothers and sisters, and the difference was significant at the .05 level. On the basis of all the data, the null hypothesis of no difference in regard to sex cannot be rejected.

Age, in general, was not found to be a significant determinant of the subjects' perceptions; however, in response to items 14 and 18, age was a significant determinant of responses at the .05 level. More older than younger subjects said dogs and cats could be their friends and they would tell the animals, if something were wrong. The difference was not significant at the .05 level when comparing responses of the older and younger age groups to item 17. In this aspect more older than younger subjects said the animals would listen to them.

An inverse relationship was found between pet contact and the number of responses. As pet contact decreased, response patterns increased; however, the difference was not significant at the .05 level,

and the null hypothesis of no difference between the number of responses and pet contact groups cannot be rejected.

In relation to the type of answers given by those with high and low pet contact, more subjects with low pet contact said that the babies of the animals came from the body or a portion of it. The type of responses given by those with high pet contact indicated that this group thought more of aggressive actions towards the animals when asked item 19. The null hypothesis of no significant difference between the types of responses from high, medium, and low pet contact also cannot be rejected on the basis of these data.

SUMMARY AND CONCLUSIONS

Summary

Six Utah State University nursery school groups, each consisting of 10 males and 10 females, were used from which 21 males and 21 females were drawn in a systematic random fashion. Children for the nursery school were chosen on the basis of their name in order on a waiting list. Parents of the children were either students, faculty, or local residents. One nursery school group was comprised entirely of children whose families live in university housing.

An interview was held with each subject in a small waiting room adjacent to the nursery. Responses from the subjects were elicited by the use of an interview schedule and an eight-inch by ten-inch color picture of a mature German Shepard and an eight-inch by ten-inch color picture of a mature Siamese cat. The responses were recorded by the use of a concealed tape recorder. The interview schedule consisted of five areas of items: identification, sex characteristics, love and affection, companionship, therapeutic value, and responsibility. Each child was interviewed and asked items while looking separately at the picture of the dog, then the cat.

A telephone interview with one parent of the subject was completed after the interview with the subject to assess previous and present pet contact. From the data subjects were categorized as high, medium, or low pet contact.

The subjects were categorized as being in the high response group or low response group according to the number of total responses given during each interview.

Findings for hypothesis 1 (there was no significant difference in the perceptions of males and females concerning perceptions toward the dog and cat) indicated that there was little difference in the way they perceived the animals. By item analysis it was found for item 8 that the difference was significant at the .01 level. More females than males answered yes to the item when responses were totaled for the cat and dog interview. The difference was not significant when item analysis was performed on the individual interviews in relation to the above item. Thus, the indication would seem to be that females knew more information about the animals and were willing to respond.

In relation to hypothesis 2 (there was no significant difference in the perception of pets between young and older age groups) the null hypothesis may be rejected at the .05 level for items 14 and 18. A greater percentage of those in the older age group responded yes to both items about the animals. This indicated the possible relationship between the number of experiences with animals by the older subjects and the possible limited fewer experiences of the younger child. Age, then, would limit the number of experiences by the younger child and, thus, affect his perception of the animals.

Of hypothesis 3 (the number of responses from those subjects with high, medium, and low pet contact will not differ significantly) there was found an inverse relationship between the amount of pet contact and the number of responses given. It was expected that those who were in more contact with pets would more readily talk about them due to the

amount of expected information they had accumulated. Those who were not in close contact with animals responded more than those who had high pet contact. The subjects with high pet contact may have been so saturated with information about pets that they were indifferent when responding, while those low pet contact subjects were curious about the animals.

Hypothesis 4 stated that the type of responses from those subjects with high, medium, and low pet contact is not significantly different. An inverse relationship was shown between those with high pet contact and those with low pet contact and the type of responses made. Item 9, referring to where the dog and cat babies came from, elicited more responses of those with low pet contact, indicating a part of/or body, than did those with high pet contact. The difference was not significant at the .05 level. Supposing that there was a relationship between pet contact and knowledge of the pet, specifically sex characteristics, it would be expected that those with high pet contact would know more about where the babies came from. The relationship which emerged was that as the degree of pet contact goes up, the amount of knowledge held by the subject decreases. Conversely, as the degree of pet contact goes down, the amount of knowledge held by the subject increases.

Discussion

The findings for hypothesis 1 indicate that there was no difference in the perceptions males and females held of the dog and cat. It was thought that a difference might exist between the males and females that would reflect a socially defined masculine or feminine preference. It has seemed to the investigator that the dog has been socially defined as a masculine pet not only in relation to who owns dogs, but in relation

to the types of activities associated with a dog: hunting, being a watch dog, bringing the paper to his master, playing rough, barking loudly, being large in size, and in general, being more aggressive in nature than a cat. The cat is more delicate looking, more graceful, more reserved, more quiet, and smaller in size, which makes it appear less aggressive, and thus a feminine preferred pet.

The aggressiveness associated with the dog and nonaggressiveness associated with the cat was the basis for hypothesizing that males and females would differ in their perceptions. It was thought that if the dog was more sex-linked to the male than the female, the male would be more knowledgeable about the dog. In item 7, when the subjects were asked if it had a mommie or daddy, it was believed that if the boys were more knowledgeable about the dog, they would respond more with a yes answer than the females. They responded less frequently with a yes answer than did the females, making it appear that there was no sex linkage.

Pet contact might have been a possible differential variable in the responses in that it might be more of a determinant of knowledge of a dog than a culturally defined sex role preference. One-third of the boys had high pet contact while two-thirds of the girls had high pet contact, but the difference in the responses was not one-third as great as might be expected. Responses to items 14, 17 and 18 all followed a similar pattern of males and females perceptions not differing (see Figure 3).

It is interesting to note, however, that an item analysis of item 8 proved significant at the .01 level. More females said the animals did have brothers and sisters than did the males (see Figure 1). It was thought that if there was a socially defined sex role preference

of pets, more positive responses by the males in the interview with the dog would indicate this assumption. On the contrary, a general trend for the females to respond more positively to the items emerged for each animal (see Figures 1, 2 and 3). As was expected, however, the females did respond more positively to the cat than the boys, but the same held true for the dog. Since the difference for each of the five questions in Figures 1 and 2 did not prove to be significant at the .05 level, an alternative explanation might be made that since the female is generally believed to be more verbal than the male in our society, the responses recorded would be an indication of this characteristic. Thus, in this case, sex and preference of pets are not dependent.

Other findings in relation to hypothesis 1 on individual questions were interesting in that one boy and one girl said they could not identify the dog. Both subjects were from low pet contact homes which might explain their failure to identify the dog. Also, it was interesting to note that reference was made to the dog's green eyes and the fact that animals can see in the dark. When asked, "If you were in a dark room, how could it take care of you?" four males and no females said that a dog could see in the dark. The pictures of the animals did not show their green eyes and whether this type response was a result of experience or seeing an animal's green eyes shine at night when faced with a bright light, or whether they have been told that green eyes can see in the dark, can only be speculation. If there is a relationship between boys knowing more about dogs and girls knowing more about cats, it was not shown when the subjects were asked, "If something were wrong, would you tell it?" Both sexes responded more to

the picture of the cat than the dog. The question was worded using the word "wrong" because of the broad category of instances it would include. It could connote fear in the child of someone hurting him, getting lost, doing something wrong, or being afraid of something he could talk about. The wording of the question was not designed to be specific since a wide range of responses was desired. However, the responses were intended to be of a nature which would denote a therapeutic function of speech to the animal. It was thought that if pets such as dogs are more therapeutic for boys than a cat was, then a difference would show in the percentage of males and females responding yes to the question. However, when both boys and girls responded more to the cat in a therapeutic manner than to the dog, the difference was not significant at the .05 level, indicating again that sex and pet preferences are not related.

Typical responses to item 6 concerning what other animal looked like dogs were: dogs and wolves, while atypical responses were: bears, cats, and elephants. Looking at the picture of the German Shepard, it would not be hard to imagine it looking like a wolf or coyote due to its color and shape. Considering its hair, it would not seem difficult to imagine a bear looking like it either. The picture, itself, might have made a difference if it had been of another breed and perhaps with a background denoting more of a pet life for the animal.

Not particular to males or females of differing age groups, several subjects responded in a manner which would indicate they were not thinking of anything more than the picture and its relation to the interviewer and room. One subject was asked, "Where does it (dog) live?" He responded by saying, "Right there!" Another child inferred that it

belonged to the investigator because they were going into the room with him. This might have been an indication that not all the subjects were perceiving the dog and cat in the same manner to begin with. Whereas some thought the pictures belonged to the investigator, others might have thought that the animals were only pictures and did not really exist. These problems were inherent in the research and could not be controlled, yet they must be taken into consideration.

In relation to hypothesis 2 of there not being a significant difference between age group 3 years 3 months to 4 years 3 months and the age group 4 years 4 months to 5 years 0 months, there was a significant difference in responses to two questions. When asked if the dog or cat could be their friends and playmates, more older subjects said "yes". The difference was significant at the .05 level. Of the older group, 45 per cent were high pet contact subjects and of the younger, 25 per cent were high pet contact subjects. If the relationship between age and pet contact was dependent, it would have been expected that 45 per cent of the older and 25 per cent of the younger group would have said "yes". As was indicated, however, the percentages were consistent with the above, further indicating that age alone made the response dependent upon the age.

A possible reason for the older subjects more often saying that it could be their friend and playmate is that age is a key variable in the perceptions the subjects held. It seems reasonable to conclude that the older the child is, the more knowledgeable he will be with what can be done with certain animals. At a younger age he may not realize that an animal can be for play. He may at an earlier age be afraid of the animal, while at a later age, because of varied exposure,

be less fearful. Therefore, it may be said that pet ownership below the age of four will not necessarily provide companionship, be an outlet for love and affection, teach responsibilities, nor be of therapeutic value due to the child's low degree of familiarity with animals. After the child has become more familiar with his world and has come into contact with animals through pleasant experiences, then the qualities of pet ownership may be more completely perceived by the child.

In regard to item 18, more older than younger subjects said they would tell it, if something were wrong. Again, a possible reason for the difference in responses might be the wider range of experiences of the older child. He may have experienced talking to an animal or seeing someone talk to an animal and realized that it is possible to talk to animals, while the younger child, due to the lesser amount of experience, may not have realized such. An older four-year-old child will more often listen to the reasoning of a teacher than the younger three-year-old, which indicates the increase of understanding with age. It would seem to follow then that, since the ability to reason has increased, the ability to generalize the reasoning to other people or even animals, in this case, would be more highly developed in the older four-year-old.

An interesting relationship developed between those who responded more than 35 times and those subjects in the high, medium, and low pet contact groups. More than half of those who responded more than 35 times were in the low pet contact group. It was expected that those with high pet contact would be the ones who would make up the majority of the high response group. Due to their contact with many animals, it was expected that they be more willing and capable of relating

about animals. It seems that they would have accumulated more information about animals thus making them more apt to talk about them.

However, they did not talk about the animals as much as the low pet contact group. An explanation for this might be that those in the high pet contact group may have been so saturated with information about animals that they have an indifferent attitude about pets. On the other hand, those with low pet contact may be more curious about the thing they do not have and might possibly desire, a pet animal. Their curiosity, being aroused by not having something they see others have, may cause them to be more verbal when asked about that animal.

In Figure 5 it can be seen that there is a 20 per cent difference between those from the low and high pet contact groups who responded less than 35 times. High pet contact comprised 31 per cent and low pet contact comprised 51 per cent of those who responded less than 35 times. It may be expected from this that the high response group would follow the same pattern if the assumption is true that low and high pet contact is not related to the number of responses. As it stands, pet contact is related to number of responses, but is an inverse relationship.

In relation to pet contact and the type of response expected, it was thought that those with higher pet contact would respond with a more logical response to item 9, where do its (dog and cat) babies come from? Although the difference was not significant ($\chi^2 = 3.27$) at the .05 level, an interesting relationship developed in the response pattern. Of the 27 subjects in the low pet contact group, 23 gave a response which indicated a portion of/or body of the animal. Only 12 subjects responded in the high pet contact group, and 7 of those

indicated a portion of/or body of the animal. In this analysis the low response pattern of the high pet contact group is seen as well as the striking difference in the perception of where the babies come from. Since the difference was not significant, many extraneous variables may be in operation.

The groups may have had different pet contact in the nursery school and elsewhere, and may have had older siblings who talk about babies and where they come from. Having babies is not only related to pets, and those with low pet contact may have lived in areas that have no pets but only farm animals from which they have learned where babies come from. In this case if the contact with other animals had been assessed, a different trend might have emerged.

The contention by Foote and Bossard (1944, 1956) that the dog can be a catharsis is shown by the responses to item 9. Of those in the high pet contact group, half said they would do something categorized as aggressive towards the dog or cat if they were mad at mommie or daddy, and half said they would do something not aggressive. In the low pet contact group, however, only 27 per cent said they would do something aggressive. Although the difference was not significant at the .05 level, more high pet contact responded with an aggressive reply.

To fully explain the relationship with other variables such as the need for a cathartic object, sex and age would have to be considered. Those who responded with a nonaggressive reply might not have had the great need for an outlet. If an outlet was needed, the sex of the subject might have prohibited the outward display of emotion. Females would tend not to be as outwardly aggressive as males and, as such, would not indicate the need for an outlet. The age of the child would

also have been a determinant of the outward display of emotion since the younger three-year-old would be more likely to use physical aggressiveness than the older four-year-old who would tend to rationalize and talk about his problems.

Conclusions

1. There are little differences in the way males and females perceive dogs and cats.
2. Females are more responsive in an interview than are males.
3. Those males and females older than 4 years 3 months are more likely to perceive dogs and cats as friends and cathartic agents.
4. Females have a greater perception of sibling relationships of dogs and cats than males.
5. There was no positive relationship between the degree to which a subject talks about a dog or cat and his pet contact at home.
6. The degree of pet contact does not influence the degree of sex education the child has attained.

Suggestions for Further Research

It is suggested that future research in the area of pets and children be focused towards the kindergarten and grade school child. Children of the older ages would seem to be more aware of pets and would be more responsible for them than the younger preschool child. With the added responsibility the pet and the child would reflect a different relationship. Also the problems of rapport and nonresponsiveness would seem not to be as great a problem with the older child.

With the added responsibility assumed by the older child, it seems that his perceptions would be more accurately reflected in his actions

towards the pets. What actions children make towards pets, the way they take care of them, how they play with them, what games they play with them, and the type of general behavioral pattern towards them, would then be areas for future research.

Assessing and recording patterns of behavior towards other types of pets would then seem useful to the psychiatrist using pets in therapy. Not only should pets of different types be studied but the children of differing backgrounds as well. Children of rural background may or may not treat the dog as a therapeutic object more so than the child of the urban area. Disadvantaged children may not even know what a pet is and, as such, would display an even different behavioral pattern.

Research involving older children, children of rural and urban background, and children of disadvantaged families is suggested to supplement the usefulness of pets in therapy for the child.

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APPENDIXES

Appendix I
Interview Schedule

Identification:

1. What is this?
2. What is it for?
3. Do you have one at home?
4. Where could I get one?
5. Where does it live?
6. What other animal looks like this?

Sex Characteristics:

7. Does it have a mommie or daddy?
8. Does it have any brothers or sisters?
9. Where do its babies come from?

Love and Affection:

10. What could you do for it to make it happy?
11. How would you love it?
12. How would it love you?
13. Who does this animal not like?

Companionship:

14. Could it be your friend and playmate?
15. What games could it play with you?
16. If you were in a dark room, how could it take care of you?

Appendix I (continued)

Therapeutic Value:

17. Would it listen to you talk if mommie or daddy wouldn't?
18. If something were wrong, would you tell it?
19. If you were mad at mommie or daddy, what would you do to it?

Responsibilities:

20. Who feeds it?
21. Who takes it for a walk?
22. Who watches it to take care of it?
23. If it got lost, how would it get back home?

Appendix II

Parent Interview

1. Do you have any pets in your home now?
2. What are they?
3. How long have you had them?
4. Who feeds them and takes care of them most of the time?
5. Have you had any pets in your home for more than two months during the past three years?
6. What happened to it?
7. Do any of your neighbors or close friends have pets that your child come in contact with?

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