



# Research on the Relationship Between Pets and Emotion of Human.

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**ABSTRACT.** With the development of society, more and more families are beginning to choose to keep pets at home. The interaction between human and animals also become the focus of many studies. Meanwhile, cases of mutual healing between humans and animals continue to emerge in society. These cases have introduced the relationship between human-animal interactions and human emotions into academic discussions and have become the focus of many studies. This paper aims to explore the relationship between pets and human positive or negative emotions by review and qualitative research. The results demonstrate that there is a relationship between positive emotions and pets. Furthermore, there may be a relationship between negative emotions and pets, but more evidence is still needed. It also demonstrated that different species of pets will influence the relationship between emotions and pets, which stills need more evidence.

**Keywords:** positive emotion; negative emotion; pets; human; relationship;

## 1 INTRODUCTION

With the development of society, more and more families are beginning to choose to keep pets at home. According to Brulliard and Clement (2016), 68 percent of American households owned pets, and there are about 94 million cats and 90 million dogs, which is shown by the data from the American Pet Products Association (APPA) [1]. Meanwhile, the interaction or relationship between humans and animals has become the focus of many studies. Based on Ursula Aragunde-Kohl's research, the coexistence of pets and humans is a continuously improving research field, and it has covered many scientific fields. Moreover, according to the results of Aragunde-Kohl's research, pets could have a positive impact on their owners' mental health with emotional connection, including the feelings of joy, peace and love [2]. However, there are two problems in the research. Firstly, it does not focus on the bonds between negative emotion in humans and pets. Secondly, different kinds of pets may have different effects on emotions. If these two questions are solved, maybe we can find a way to use pets as a psychological treatment. This paper will analyze the relationship between humans and pets based on these two problems and Aragunde-Kohl's study to point out the direction of future research on the relationship between pets and emotions.

## **2 POSITIVE EMOTION AND NEGATIVE EMOTION**

### **2.1 Positive emotion**

Regarding positive emotions, according to Guo Xiaoyan and Wang Zhenhong [3], they think that positive emotions are influenced by the individual's satisfaction, which are influenced by the stimuli inside the body, outside the body, and life events. They also introduce that positive emotions could undo physiological activation that is associated with negative emotions. It shows that positive emotions are an important component of mental health, which can also promote physical health. As a result, positive emotions could be seen as a kind of treatment for mental health. That's why more and more people focus on the relationship between positive emotions and other things, and finding a relationship between pets and positive emotions becomes very meaningful. According to Aragunde-Kohl's research [2], the following were considered as the expression of positive emotions with pets, such as love, peace and support, joy, tranquility, relief, and protection. They may think that the interaction between owners and pets can directly or indirectly affect human emotions through these factors.

### **2.2 Negative emotion**

Besides the positive emotions, in Aragunde-Kohl's research [2], they also list the elements of negative emotions like sadness, anxiety, and stress. Like positive emotions, negative emotions are also affected by the stimulation of receptors' internal, external, and life events. Moreover, negative emotions may have a worse impact on people. For example, according to Chuang [4], people whose emotions are negative are more likely to systematically participate in risky behaviors, which may cause physical and mental damage than those whose emotions are positive. Moreover, another study showed another bad effect of negative emotions. According to Liu's research [5], negative emotions can affect people's heart function and even induce autonomic nerve variation similar to coronary heart disease. As a result, it is also very important to judge the relationship between something and negative emotions while confirming the relationship between something and positive emotions.

## **3 RELATIONSHIP BETWEEN POSITIVE EMOTION AND PETS**

### **3.1 Summary of research**

In Aragunde-Kohl's research, they used a kind of questionnaire called the "Puerto Rico Comprehensive Companion Animal Survey" [2], which included eighty-six questions. This questionnaire focuses on the variables about the owners, like the gender, age, type of housing and income, and variables about the companion bond between owners like activities and the reason for keeping pets. It also has variables about the information of

pet caretaking, like types of food and where pets sleep. After collecting the data, researchers analyze the result and find that owners and the pets have the interaction on physical and emotional levels, which makes both species benefit.

### **3.2 Problems in the research**

However, there are two questions in this research. Firstly, they do not take negative emotions into account. According to the result of Aragunde-Kohl's questionnaire [2], most owners have positive interactions with their pets, such as talking, playing, and petting with them. Among them, the selection ratio of petting is 94%, and playing is 92%. Moreover, most owners say that the reason for having a pet is company (91%). In comparison, happiness and safety were chosen as reasons for keeping pets at 42% and 40%. Love, peace and support, joy, tranquility, relief, and protection are set by researchers as the elements of positive emotions, and company, happiness, and safety could be seen as reflections of them. This shows the relationship between mental positive emotion and pets. There are some factors that pets cannot only provide a positive effect on owners' mental health. There may be some relationships between negative emotion and pets. Although they list the elements of negative emotions, the relationships between negative emotions and pets are not mentioned in the research, so it is the first problem with this research. Moreover, the questionnaire only focuses on the background information of the owner and the way to treat pets, but it does not include the questions about the variety and personality. The variety and personality of pets may become a disturbing factor, because the effect on mental emotion of human may be different based on different variety and personality.

## **4 RELATIONSHIP BETWEEN NEGATIVE EMOTION AND PETS**

### **4.1 Disadvantages of keeping pets**

However, in addition to the psychological benefits, keeping pets can also have many disadvantages. First of all, keeping pets costs a lot of money. For example, according to BMJ Publishing Group Limited Many owners in the UK have incorrectly estimated the maintenance costs of pets, including the potential costs of veterinarians [6]. Moreover, in 1994, the United States family spent about \$20 billion a year on pets [7]. Pet food and other special expenses like item damage are also a large amount. According to the research report on China's pet food industry, the market scale of China's pet food industry has reached 133.7 billion yuan [8]. For another example, according to the articles included in wireless news, more than 8 million devices in the United States have been damaged by pet bites, licking, chewing, drooling, or other ways, and need more than \$3 billion to repair and replace [9].

## 4.2 Relevance of negative emotion

Keeping pets will have an impact on family income, and the owner is likely to be under economic pressure. Xiao Hongxin and Xu Xiuhong indicate that economic pressure will damage mental health [10], which is related to negative emotions. Besides economic pressure, the death of pets could also cause negative emotions. According to Feng Shijun and Lan Feng, when pets suddenly leave, some owners will be depressed and even suicidal [11]. However, there is still not enough research to show that there is a clear correlation between pet ownership and the negative emotions of owners, but it can be seen from the relevant evidence that there should be a certain connection. Therefore, additional research is still needed in these fields.

## 5 DIFFERENT SPECIES OF PETS

With the development of society, modern people are no longer limited to traditional pets, which include cats and dogs. Some people are willing to keep some special pets, such as lizards, snakes, and spiders. According to an investigation on pet species in Guiyang in 2016, a city in China, pets other than cats and dogs account for 3.14% [12]. In this investigation, the data was collected from pet hospitals, which means that more and more people are beginning to choose non-traditional pets. According to Andreas Hergovich, the personality of owners may affect the choice of pets, and more people like to keep non-traditional pets like reptiles, spiders, and insects [13]. In Aragunde-Kohl's questionnaire, which is shown in Table 1, they pay attention to asking about the interaction between pets and their owners [2], but different kinds of pets have different interactions with their owners. As a result, different types of pets will interfere with the survey results. However, we do not find any essays about the relationship between different kinds of pets and positive and negative emotions. So, detailed research is still needed to understand the relationship between different kinds of pets and positive and negative emotions.

**Table 1.** Questionnaire (made by the author)

Variable (Table 1)	Answer	Percentage
Do you engage in any of these activities with your pet(s)? (Please mark all that apply.)	Play	92%
	Walk	57%
	Stroke	94%
	Talk	89%
	Sports	13%
	Training	22%
	Contests	4%
	Security	40%

Variable (Table 1)	Answer	Percentage
Identify the principal reason(s) why you have a pet (please mark all that apply).	Company	91%
	Social status	1%
	Luxury	1%
	Pleasure	42%
	It was a gift	4%
	Money	0.5%
	Work	0.5%
Would you say your pet(s) is(are) part of your family?	Yes	99%
	No	1%

## 6 DISCUSSION

### 6.1 Positive emotion VS negative emotion

In Aragunde-Kohl's research, they have evidence that keeping pets could stimulate the owner's positive emotions, and we have shown that there may be a relationship between negative emotions and keeping pets, which still needs detailed study. If we want to consider keeping pets as a treatment for people's mental health, we need to judge whether the positive emotions brought by pets are greater than the negative emotions. For example, people choose to keep pets because they yearn for company, which could also provide them with positive emotions like joy, peace, and love. However, when the pet dies, it will bring serious negative emotions to the owner, like sadness and melancholy. As a result, it still needs more research to be evidenced. We need to study the whole process of pet keeping to compare the proportion of positive emotions and negative emotions, so as to prove whether pet keeping can be used as a treatment for mental health.

### 6.2 The influence of species of pets

We have pointed out that in Aragunde-Kohl's research, they do not show if species of pets could influence the result of their research. According to Aragunde-Kohl's research [2], the questionnaire they designed paid more attention to the interaction between traditional pets and people, such as the time spent with pets, the place where pets sleep, the type of food that pets get, and the primary caregiver of pets. Moreover, their research focuses on whether pets could be members of their owners' family, which is related to company. If the pet is a non-traditional pet like an arthropod or reptile, it may be strange to consider it as the member of family, because they may not provide enough elements about the company. However, as Andreas Hergovich shows in their study [10], the choice of pets will be affected by the owner's personality. The owner's person-

ality may also affect whether they consider their pet as part of their family or as a companion. There should be a more complicated relationship between the owner's personality, the influence of the type of pet and the relationship between emotions and pets. It still needs more research to be evidenced.

### 6.3 Problems

Although this article mainly focuses on Aragunde-Kohl's research, supplemented by other articles, analyzes the relationship between people's emotions and pets, and points out the problems and directions that can be further studied, there may still be many articles that cannot be found. Perhaps the problems and directions mentioned in the article have been studied. In addition, due to the lack of some strong literature support, some theories in the article only exist in the speculation stage. If there are more studies in the related fields of pets and emotions, these theories may be more perfect.

## 7 CONCLUSION

The relationship between pets and emotions of owners has become an attractive field. However, according to the above, there is no relevant research on the relationship between pets and their owners' negative emotions. So, we need to focus on the comparison of the proportion of positive emotions and negative emotions to identify the importance of keeping pets for mental health. Moreover, the impact of pet species on the relationship between pets and emotions also needs to be studied in detail. We also need to focus on the relationship between the owner's personality, the influence of the type of pet, and the relationship between emotions and pets. Therefore, this will be the direction of future research in this field.

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