

A Comparison between Personality Traits and Dog or Cat Adoption Preference using
the Big Five Personality Inventory

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Animal Behavior and Conservation

Fall 2016

Abstract

The majority of animal lovers can self-identify with either being a “cat person” or a “dog person” and know which pet they would choose at an animal shelter. Common stereotypes suggest that dog people are more social and outgoing, and cat people have a tendency to be more introverted homebodies. Using a free, publicly accessible website, 224 people were surveyed using the Big Five Personality Inventory and asked to choose a pet preference for adoption (dog, cat, neither, or another pet). Results suggest that dog people trend towards extraversion, agreeableness, conscientiousness, and neuroticism while cat people trend towards the personality dimension of openness. Discussion focuses on how personality affects behavior and may impact pet preference, the mutual benefits of pet attachment/bonding, and recognizes issues with the survey and possible future steps for more robust data.

Keywords: Big Five Personality Inventory, dog or cat person, shelter adoption

A Comparison between Personality Traits and Dog or Cat Adoption Preference using the Big Five Personality Inventory

Most people know whether they would rather adopt a cat or a dog from the shelter, but probably could not tell exactly why. In the United States, approximately 3.9 million dogs (Protopopova, Brandifino, & Wynne, 2016) and 3.4 million cats (American Society for Protection of Cruelty to Animals (ASPCA) (ASPCA, 2016) enter into animal shelters annually. Of these numbers, approximately 1.4 million, or 36% of dogs and 1.3 million, or 38% of cats living in shelters are annually adopted (ASPCA, 2016). That leaves approximately 63% of animals in shelters not adopted each year (U.S. Pet Ownership & Demographics Sourcebook, 2012). To increase proper placement and adoption of animals from shelters, a study to determine if pet preference can be identified by a human's personality traits was performed. Using the Big Five Personality Inventory test (BFPI), individuals were surveyed to see if personality scores impact preference towards adopting a cat or a dog from the shelter. Proper pet placement is an important factor in the pet/owner bond, and when the attachment is strong between pet and owner, there are mutual benefits (Sable, 2012).

The BFPI test was designed to provide a model of comprehending the relationship between personality and behavior (Poropat, 2009). Personality traits are a behavioral manifestation of an individual's feelings on a topic (Ajzen, 2005). The decision between cat or dog preference is rooted in personality and affects behavior. The BFPI test can be given in multiple forms and takes less than 10 minutes to complete. The test is composed of 44 statements where the user rates a statement on a scale from disagree strongly to agree strongly.

The BFPI test divides personalities into five dimensions: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Conscientiousness individuals are described as efficient, organized, dependable, disciplined, and preferring scheduled, planned events. Extraversion refers to individuals who are outgoing, energetic, draw their energy from being around other people, assertive, and overall are positive individuals. Agreeableness can be described as someone who is friendly, compassionate, cooperative, trusting, helpful, and well-tempered. Openness to

experience is associated with inventive and curious personalities who are imaginative, independent, unpredictable, and comfortable without rigid guidelines. Lastly, neuroticism is the tendency to associate with sensitive or nervous behaviors such as anxiety or vulnerability, worrying, and people who are easily irritated (Toegel & Barsoux, 2012).

It is predicted that individuals who self-identify as “dog people” will associate more with extraversion, agreeableness, and conscientiousness, and those who self-identify as “cat people” will associate more with neuroticism and openness. This is based on personal observations and a similar study conducted at the University of Texas, where 4,565 participants also completed the BFPI and described pet preference (Gosling, Carson, & Potter, 2010). Additional research by Alba and Haslam (2015) suggests that dog people have more dominant personalities whereas cat people tend to be less dominant. This theory stems from the idea that dogs as a species are typically easy to train and respond reliably to commands, therefore a dominant personality would prefer an animal who is easier to control. Cats on the other hand, are typically not as easily controlled or manipulated as dogs, so a less dominant personality would suit the owner of a cat. Submission (cat people) can be linked to the openness and neuroticism personality dimensions on the BFPI and dominance can be associated with conscientiousness (Goldberg, 1992).

Methods

A survey was created using the 44 statements on the BFPI test using free, publicly accessible software (John, Naumann, & Soto, 2008). Additional questions regarding pet preference, demographic information, and individual background information were also included on the survey. See Appendix A for a copy of the survey used for this research. Participation in the survey was completely voluntary and participants could stop at any time. All questions were optional; however, any incomplete personality surveys were not used. If a participant chose to not complete the demographic questions of the survey, their personality results were still used. The anonymity of all responses was maintained to the highest degree possible. The link to the survey was distributed across social media and other sharing social platforms with a goal to reach 200 completed surveys by participants over the age of 18 from October 3,

2016 until November 7, 2016. The survey was closed on November 7, 2016 after the target of 200 completed surveys was exceeded.

The overall study design was based off a similar study composed by Gosling, Carson, and Potter (2010) at the University of Texas. This 2010 study used the BFPI statements to assign personality dimensions to self-identified cat people or dog people. The 2010 survey was searchable on major search engines, by “word of mouth” and by previously joined voluntary mailing lists by survey participants (Gosling, Carson, & Potter, 2010).

After collecting all the surveys, any survey completed by an individual under the age of 18 was eliminated from the results. Since there was no way to receive parental consent due to the animosity of the survey, it was not appropriate to include individuals under the age of consent. Also, any survey which the 44 personality statements were not completely answered was also excluded from the results.

To tabulate scores, the average of each question was calculated using the survey ratings of 1 to 5, with 1 being the participants disagreed strongly with the BFPI statement and 5 being that the participants agreed strongly with the statement. Then the BFPI statements on the survey were broken down into each of the five dimensions that the statement represented (i.e., all extraversion questions were grouped together, all agreeableness questions were grouped together and so on). Using the average response for each group of statements, the average between each of the five personality dimensions was compared between dog people and cat people using an unpaired t-test. The t-test was used to distinguish any statistical significance between personality traits and pet preference. The null hypothesis of no difference in personality traits between dog and cat people was tested. Additional trends were identified and discussed.

Results

A total of 244 surveys were submitted, and 224 surveys were analyzed. Twenty surveys were excluded from calculations as they were either incomplete or conducted by a participant under the age of 18. These surveys were excluded due to the lack of available parental consent or absence of necessary data. Of the 224 individuals surveyed, 150 individuals selected dog as their pet preference (66.96%), 68 individuals

selected cat (30.36%), and 6 individuals selected another pet not listed or would not adopt either a cat or dog (2.68%) (Figure 1).

Survey participants were 90.63% female (203 individuals) and 8.48% male (19 individuals). Of the male participants, 89.5% self-identified as dog people (17 out of 19 individuals). Two survey participants did not select a gender (0.89%) (Table 6, Appendix A). The average age of survey participants was between 25 and 34 years of age (105 participants, 46.88%), but ages range from 18 to 65 years or older (Table 7, Appendix A). Most participants were married (130 individuals, 58.04%) (Table 8, Appendix A) with the largest majority of Caucasian decent (215 individuals, 95.98%) (Table 9, Appendix A). The majority of participants surveyed also associated as Democratic as their registered voting party (109 individuals, 48.66%) (Table 10, Appendix A).

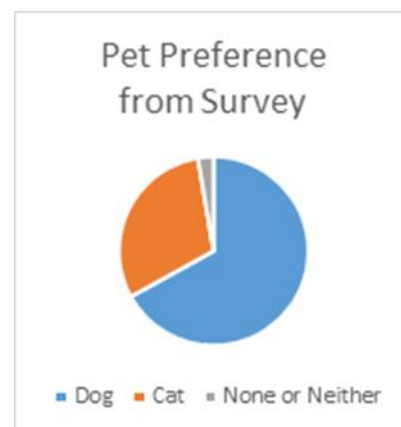


Figure 1. Percentage of dog vs cat preference

Between the five personality traits on the test (extraversion, agreeableness, conscientiousness, neuroticism, and openness), individuals who self-identified as dog people trended closer than those who self-identified as cat people in extraversion, agreeableness, conscientiousness, and neuroticism. Openness was the only category that individuals who self-identified as cat people trended higher in than dog people (Figure 2). However, it must be recognized that no differences between dog people and cat people in terms of personality dimensions were statistically significant.

The hypothesis was not supported by the data. It was hypothesized that dog people would associate with extraversion, agreeableness, and conscientiousness, and cat people would associate with neuroticism and openness. The data showed that people who self-identify as dog people instead of cat people scored higher in neuroticism, however the data was not statistically significant (an average of 3.50 vs 3.25 on a 1 – 5 scale, $p = 0.35$). While no statistical significance was shown in any of the five dimensions, the agreeableness and extraversion dimensions showed a trend that dog people associated more with agreeableness and extraversion than cat people ($p = 0.08$, agreeableness; $p = 0.12$, extraversion).

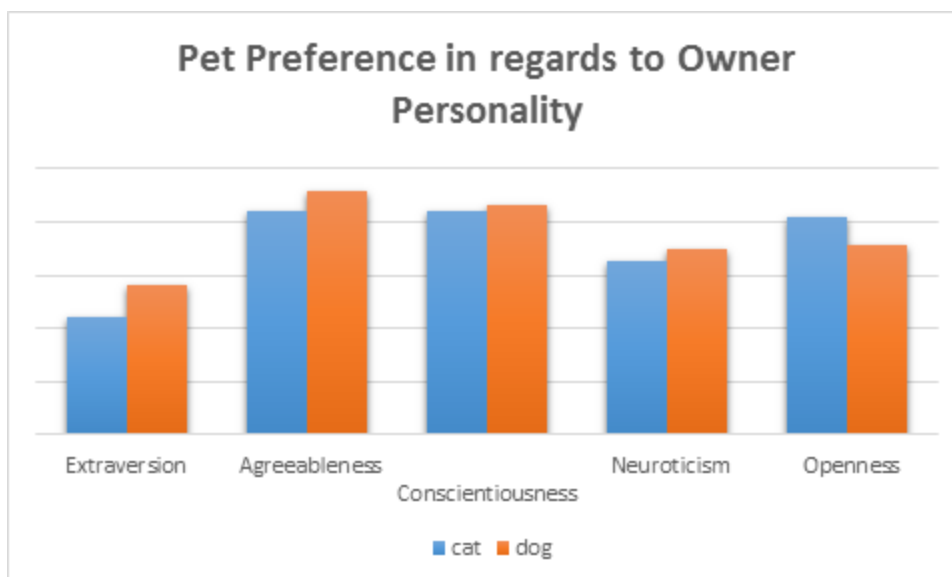


Figure 2. Graph of personality traits versus pet preference

The personality dimensions of openness ($p = 0.57$), neuroticism ($p = 0.69$), and conscientiousness ($p = 0.35$) were very similar across both groups of dog people or cat people (all raw data is in Appendix A, Tables 1 through 5). The hypothesis of self-identified dog people categorizing with extraversion, agreeableness, and conscientiousness was supported by the data but not significant. The hypothesis of cat people identifying with openness was also supported but not significant.

Discussion

The hypothesis that people who self-identify as dog people would trend towards the personality dimensions of extraversion, agreeableness, and conscientiousness was supported, but not significant. The hypothesis that people who self-identify as cat people would trend towards the personality dimension of neuroticism was not supported by the data, as dog people scored higher in this personality trait than cat people. This could be because the vast majority of survey participants were women (203 individuals, 90.63%), and women tend to associate more with neurotic traits than men (Bagely & Gonsman, 2005). However, one must keep in mind that none of the results in this study were statistically significant.

Since females were the large majority of participants in this survey, the results show bias. Additional research shows that women report higher scores in extraversion, agreeableness, and neuroticism than men, regardless of pet preference (Weisberg, DeYoung, & Hirsh, 2011). Another additional compounding variable in this study is that

the majority of participants surveyed are registered as Democratic for their voting party (109 individuals, 48.66%) with Republican trends only making up 27.68% (62 individuals) of the adults surveyed (46 individuals, 20.54% preferred not to answer, and 7 individuals, 3.13% chose another party). This has an impact as studies have shown that Democrats tend to score higher in the dimensions of openness and extraversion (Carney, Jost, Gosling, & Potter, 2008). A wider base of participant demographics would have provided a stronger, more robust data set.

The survey also did not record any information in regards to current pet ownership. A stronger survey would have asked about current pet ownership and not focused the question solely on hypotheticals. The ideal next step would be to collect more data on participants' current pet ownership and use this as an additional tool to analyze pet preference.

Regardless of the limitations presented in this research, there are still trends between human personality traits and their preference between cat or dog ownership. There is a high possibility of finding the perfect type of pet for someone interested in welcoming a pet into their lives by taking into account their personality traits. If shelters had the capacity to provide personality surveys to potential adopters, there could be a higher chance of better pet placement. This is important as strong pet attachment has been linked to positive effects on an owner's mental and physical health as well as assisting with how pet owners deal with their emotions, traumas, and relationships with others humans (Sable, 2012). The benefits for a pet in a proper placement home is the security of the human-animal bond, with an owner who will provide all the necessary needs for a comfortable and secure life (Sable, 2012). And of course, providing a solid match between pet and owner will help reduce the number of animals in shelters who need adopting.

Action & Reflection

As part of the action component of this research, I will be presenting my findings and thoughts on the topic of pet preference as it relates to individual personality traits at an upcoming Cincinnati Veterinary Technician Association meeting, likely on January 16, 2017. My hope is to create a presentation to share my results with many different organizations, including local animal shelters as well. Using an online survey, it would

be great to work with a shelter and help people interested in adopting a pet, chose the right animal for their own personalities. Even if communications start out with some friendly emails, I will email shelters around the area to see if anyone thinks this could be a useful tool for their organization. If any shelters take interest in my research or survey, I will gladly share and help coach them through adding this step to their processes. I am hopeful that I can find at least one organization who is interested in using the BFPI to uncover the ideal pet for a person interested in adoption.

I am surprised in my results, in that my hypothesis was not supported. I am also very aware now that my community of friends is overwhelmingly Caucasian women. I believe this survey would have gathered different results had multiple ethnicities and more male participants taken the survey. In the future, if doing a survey, I will try to use more than just my social media page/circle of friends, and really try to promote the survey to a larger, potentially better representation of the general public.

Conclusion

This study provided important trends to how human personality may play a role in pet preference. Dog people and cat people's personalities differed very little from this research, however dog people had a trend towards agreeableness and extraversion personality dimensions on the Big Five Personality Inventory. This information can be useful for individuals deciding on which type of animal to adopt, and can show which animal would be best suited for their personality choices. Matching the correct pet up to an individual's personality can lead to a solid pet/owner relationship and increase attachment for both beings. Having a pet in an individual's life can be a truly meaningful and important relationship and knowing which pet would be the best match can help develop the necessary relationship for the bond to form.

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Appendix A

Survey Questions

The purpose of this research is to assess if your personality affects your interest in adopting a cat or dog and is being conducted as part of Kristen's work in a graduate program at Miami University, Oxford, Ohio. The survey should take about 7 - 10 minutes to complete. Your participation is completely voluntary, and you may stop at any time. Confidentiality and anonymity of responses will be maintained to the highest degree possible. If you have any questions, you can contact Kristen Ludwick at ludwicka@miamioh.edu. If you have questions or concerns about the rights of research subjects, you may contact the Research Compliance Office at Miami University at (513) 529-3600 or humansubjects@miamioh.edu.

Please select one of the following:

Please indicate your gender:

Male, female, prefer not to answer

Which age range includes your age:

Younger than 18, 18 - 24, 25 - 34, 35 - 44, 45 - 54, 55 - 64, 65 or older, prefer not to answer

What is your marital status?

Now married, widowed, divorced, separated, never married, prefer not to answer

Approximate individual yearly salary:

Less than \$10,000, \$10,000 to \$19,999, \$20,000 to \$29,999, \$30,000 to \$39,999, \$40,000 to \$49,999, \$50,000 to \$59,999, \$60,000 to \$69,999, \$70,000 to \$79,999, \$80,000 to \$89,999, \$90,000 to \$99,999, \$100,000 to \$149,999, \$150,000 or more, prefer not to answer

Please specify your ethnicity:

Hispanic or Latino, not Hispanic or Latino

Please specify your race:

American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, White, prefer not to answer

Registered voting party:

Democratic, Republican, Libertarian, Green, Constitution, prefer not to answer

Please select a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	2	3	4	5
Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly

I am someone who...

Is talkative

Tends to find fault with others

Does a thorough job
Is depressed, blue
Is original, comes up with new ideas
Is reserved
Is helpful and unselfish with others
Can be somewhat careless
Is relaxed, handles stress well
Is curious about many different things
Is full of energy
Starts quarrels with others
Is a reliable worker
Can be tense
Is ingenious, a deep thinker
Generates a lot of enthusiasm
Has a forgiving nature
Tends to be disorganized
Worries a lot
Has an active imagination
Tends to be quiet
Is generally trusting
Tends to be lazy
Is emotionally stable, not easily upset
Is inventive
Has an assertive personality
Can be cold and aloof
Perseveres until the task is finished
Can be moody
Values artistic, aesthetic experiences
Is sometimes shy, inhibited
Is considerate and kind to almost everyone
Does things efficiently
Remains calm in tense situations
Prefers work that is routine
Is outgoing, sociable
Is sometimes rude to others
Makes plans and follows through with them
Gets nervous easily
Likes to reflect, play with ideas
Has few artistic interests
Likes to cooperate with others
Is easily distracted
Is sophisticated in art, music, or literature

Animal preference: Cat, dog, other, prefer not to answer

Table 1
Statistical Calculations for Extraversion (unpaired t test)

	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error of the Mean</u>	<u>p-value</u>	<u>t-statistic</u>	<u>Degrees of freedom</u>	<u>Standard error</u>
<u>Dog</u>	2.81	1.51	0.53	.012	1.77	7	0.39
<u>Cat</u>	2.22	1.25	0.44				

Table 2
Statistical Calculations for Agreeableness (unpaired t test)

	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error of the Mean</u>	<u>p-value</u>	<u>t-statistic</u>	<u>Degrees of freedom</u>	<u>Standard error</u>
<u>Dog</u>	4.56	0.53	0.18	0.08	2.00	8	0.17
<u>Cat</u>	4.22	0.44	0.15				

Table 3
Statistical Calculations for Conscientiousness (unpaired t test)

	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error of the Mean</u>	<u>p-value</u>	<u>t-statistic</u>	<u>Degrees of freedom</u>	<u>Standard error</u>
<u>Dog</u>	4.33	1.32	0.44	0.35	1.00	8	0.11
<u>Cat</u>	4.22	1.30	0.43				

Table 4
Statistical Calculations for Neuroticism (unpaired t test)

	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error of the Mean</u>	<u>p-value</u>	<u>t-statistic</u>	<u>Degrees of freedom</u>	<u>Standard error</u>
<u>Dog</u>	3.50	1.31	0.46	0.69	0.40	14	0.62
<u>Cat</u>	3.25	1.16	0.41				

Table 5
Statistical Calculations for Openness (unpaired t test)

	<u>Mean</u>	<u>Standard Deviation</u>	<u>Standard Error of the</u>	<u>p-value</u>	<u>t-statistic</u>	<u>Degrees of freedom</u>	<u>Standard error</u>
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			<u>Mean</u>				
<u>Dog</u>	3.58	1.20	0.38	0.57	0.59	18	0.43
<u>Cat</u>	4.10	0.62	0.19				

Table 6
Gender of Survey Participants

	<u>Female</u>	<u>Male</u>	<u>Prefer not to answer</u>
<u>Participants</u>	203	19	2

Table 7
Ages of Survey Participants

	<u>Younger than 18</u>	<u>18 – 24</u>	<u>25 – 34</u>	<u>35 - 44</u>	<u>45 - 54</u>	<u>55 – 64</u>	<u>65 or older</u>	<u>Prefer not to answer</u>
<u>Participants</u>	0	17	105	34	37	21	8	2

Table 8
Marital Status of Survey Participants

	<u>Married</u>	<u>Widowed</u>	<u>Divorced</u>	<u>It's complicated</u>	<u>Never married</u>	<u>Prefer not to answer</u>
<u>Participants</u>	130	3	16	6	65	4

Table 9
Race of Survey Participants

	<u>White</u>	<u>Asian</u>	<u>African American</u>	<u>American Indian or Alaska Native</u>	<u>Native Hawaiian or Pacific Islander</u>	<u>Prefer not to answer</u>
<u>Participants</u>	215	3	3	0	0	3

Table 10
Registered Voting Party of Survey Participants

	<u>Democratic</u>	<u>Republican</u>	<u>Libertarian</u>	<u>Green</u>	<u>Constitution</u>	<u>Prefer not to answer</u>
<u>Participants</u>	109	62	6	0	1	46