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Dog people and cat people differ on dominance-related traits.

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Abstract

Many people identify themselves as being either a “cat person” or a “dog person” based on their preference for these domestic animals. The purpose of this study was to test the common belief that there are personality differences between these types. Previous research has found differences between these cat people and dog people on all Big Five personality traits, but studies comparing them on other personality characteristics have yielded mixed findings. Conjecturing that people prefer pets that complement their own personalities, we predicted that dog people should score higher than cat people on traits relating to dominance (i.e., social dominance orientation [SDO], interpersonal dominance, competitiveness, and narcissism). Two samples ($n_s = 506$ & 503) were recruited online and completed these measures, as well as a question regarding their pet preferences. Findings for SDO and competitiveness were consistent with predictions in both studies, but no differences were found on interpersonal dominance or narcissism. The association of being a dog person with SDO and competitiveness persisted when gender differences in pet preference and personality were statistically controlled. We concluded that individuals who are high on these traits tend to prefer submissive pets such as dogs, whose temperament complements their preference for dominance.

Keywords: Cats, Dogs, Dominance, Personality

Many people consider themselves to either be a “cat person” or a “dog person”, and there is a widespread popular belief that these types have different personalities (Woodward and Bauer 2007; Gosling, Sandy, and Potter 2010). Personality may indeed underlie preferences for cats or dogs, as these animals have different behavioral styles that may be suited to particular types of human personalities. Given the significant role that pets play in many people’s lives, the ways in which personal characteristics relate to pet preferences can illuminate the nature of the connection between humans and domestic animals among millions of pet owners. Knowing which characteristics underpin these preferences can clarify the very basis of the complex relationships between people and their pets.

Several studies have investigated the personality correlates of pet preferences. The earliest research was conducted by Kidd and Kidd (1980), who examined differences on autonomy, dominance, nurturance, and aggression between people who identified themselves as pet-lovers, dog-lovers, or cat-lovers. They found that male cat-lovers were higher on autonomy than the other participant groups, and female cat-lovers were lower on nurturance. They also found that male dog-lovers were significantly higher in dominance and aggression than other groups, whereas female cat-lovers were lower on these traits. Female dog-lovers also scored lower on aggression than the other participant groups. In contrast, Martinez and Kidd (1980) found no differences between cat-owners and dog-owners on self-acceptance and well-being. Another early study (Edelson and Lester 1983) found that extraverted males tended to prefer dogs over cats. More recently, Perrine and Osbourne (1998) found that self-identified dog people scored higher than self-identified cat people on masculinity and independence. However they found no significant differences between cat and dog people on femininity, athleticism, or dominance. Woodward and Bauer (2007) found that people whose ideal pet was a dog were significantly less hostile but no less submissive than people whose ideal pet was a cat. Finally, Gosling, Sandy, and Potter (2010) observed differences between

cat and dog people on all Big Five personality traits. They found that dog people were higher than cat people on extraversion, agreeableness, and conscientiousness, and lower than cat people on neuroticism and openness to experience. These differences remained even when gender was controlled, and when examined separately within each gender.

In summary, although several personality traits have been found to differ between cat and dog people, these differences have generally been qualified and inconsistent. Many findings have been specific to men or women, some have been mixed (e.g., significant and null findings for dominance), and some have been conflicting (e.g., dog people being more aggressive and less hostile, cat people being more autonomous but dog people more independent). In addition to this confusing pattern of findings, most research has been exploratory, lacking a theoretical basis for its predictions. One exception is Perrine and Osbourne (1998), who expected that the personalities of pets would match those of the people who preferred them. They predicted that cat people would rate themselves higher on independence since cats are characteristically independent, but found that dog people were actually *higher* on independence. Another exception is Woodward and Bauer (2007), who proposed “a reciprocal relationship between the needs of the owner and the dispositional characteristics of the pet” (p. 174). However, they did not provide any explicit rationale for their prediction that dog people would be less submissive and less hostile than cat people, other than to say that dogs are innately more sociable and submissive to humans.

Woodward and Bauer’s (2007) argument that pet owners’ personalities have a reciprocal relationship to the temperament of their preferred pets seems more promising than Perrine and Osbourne’s (1998) argument for similarity or matching. However, their finding of lesser hostility associated with dog preference only fits their reciprocal relationship position if dogs are more hostile than cats. They also did not attempt to disentangle effects of pet preference from those due to gender, although these variables are likely to be confounded

given gender differences in pet preferences (Edelson and Lester 1983). We propose instead that people prefer pets that behave in a way that *complements* their own personalities. Dominance hierarchies occur in canine social groups (Cafazzo, Valsecchi, Bonanni, and Natoli 2010) and dogs are often obedient and submissive towards their human owners (Serpell 1995). Cats on the other hand are a more solitary species without dominance hierarchies, and are not submissive to their owners (Bradshaw 2012). Hence the old saying that “Dogs have owners, cats have staff,” and Winston Churchill’s comment that “Dogs look up to us. Cats look down on us.” One reason why some people prefer dogs may be that they enjoy having pets that are submissive to them. Thus dog people should score higher on personality characteristics associated with dominance. The present study examined several dominance-related characteristics – Social Dominance Orientation, interpersonal dominance, competitiveness, and narcissism – to test this prediction.

Social Dominance Orientation (SDO) (Pratto et al.1994) is an ideological preference for hierarchy between groups, and the belief that higher-ranked groups should dominate those that are lower-ranked. Since people high on SDO believe that inequality is natural and desirable and that lower-ranked entities should be subordinate to the higher-ranked, they may prefer deferential pets like dogs. Cats might be preferred by people who do not have this hierarchical orientation. No previous studies have examined differences between cat people and dog people in SDO.

Interpersonal dominance refers to a tendency to act forcefully and assertively towards others, as distinct from an ideological preference for inequality (SDO), with which is uncorrelated (Pratto et al. 1994). Both Woodward and Bauer (2007) and Perrine and Osbourne (1998) found no significant difference between cat people and dog people on this trait, but Kidd and Kidd (1980) found that male dog-lovers were relatively high on it and female cat-lovers relatively low. Despite these mixed results, we predicted, based on our

complementary personality account, that dog people would score higher than cat people on interpersonal dominance.

Competitiveness concerns the desire to out-do others, and this desire for superiority is another form of dominance. People who have a greater preference for being superior should prefer pets that are submissive to them, and therefore it was predicted that dog people would score higher than cat people on competitiveness (Houston et al. 2002). Similarly, narcissism in its grandiose form involves self-aggrandizement, and is known to correlate with dominance (Emmons 1984; Raskin and Terry 1988). Therefore it is predicted that dog people should score higher than cat people on narcissism, since those who see themselves as superior should prefer pets that are submissive to them.

Inclusion of the four dominance-related characteristics allows four tests of our broad hypothesis. The differences among them may also allow some refinement of the hypothesis. The four characteristics have diverse foci, primarily relating to ideology (SDO), interpersonal behavior (interpersonal dominance and competitiveness), and self-conception (narcissism). They also have somewhat distinct motivational bases, reflecting desires for superiority or rank (SDO, competitiveness, narcissism) or for personal agency (interpersonal dominance). Determining which of the characteristics best differentiate cat people and dog people may therefore help to clarify the complementary personality hypothesis.

Method

Participants

Adult participants were recruited through Amazon's MTurk.com website by inviting them to participate in a survey for a psychology research project. To test the replicability of findings, two different samples were collected on different occasions, approximately 14

months apart. In both samples, participants were paid US\$1 to complete the entire survey, which they were told would take approximately 30 minutes to complete. Sample 1 contained 577 responses, which was reduced to 506 (298 women, 500 residing in the USA, 485 US citizens) after deleting incomplete responses. The age range was 18-81 years ($M = 33.58$, $SD = 12.90$). Sample 2 contained 528 participants, which after deletion of incomplete responses, was reduced to 503 (259 women, 499 residing in the USA, 490 US citizens). The age range was 18-74 years ($M = 30.95$, $SD = 11.29$).

Materials

Participants completed the Social Dominance Orientation Scale (Pratto et al. 1994). This scale is a 16-item questionnaire measured on a 7-point Likert-type scale, where participants are asked how they feel about each item on a scale ranging from 1 (very negative) to 7 (very positive). It had a reliability of $\alpha = 0.94$ in both samples. Example items from this scale are: “Some groups of people are simply inferior to other groups”, “It’s probably a good thing that certain groups are at the top and other groups are at the bottom” and “All groups should be given an equal chance in life” (reverse-scored item).

Interpersonal dominance was measured with the Assertiveness scale (Goldberg et al. 2006) from the International Personality Item Pool (ipip.ori.org), which assesses the tendency to interact with others in a dominant and forceful manner. This scale is a 10-item questionnaire measured on a 5-point Likert-type scale, where participants are asked to rate how accurately each item describes themselves on a scale ranging from 1 (very inaccurate) to 5 (very accurate). It had a reliability of $\alpha = 0.85$ in both samples. Example items from this scale are: “Take control of things”, “Try to lead others” and “Wait for others to lead the way” (reverse-scored item).

Participants also completed the Revised Competitiveness Index (Houston et al. 2002). This scale is a 14-item questionnaire measured on a 5-point Likert-type scale, where participants are asked how much they agree with each item on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). It had a reliability of $\alpha = 0.91$ in Sample 1 and $\alpha = 0.92$ in Sample 2. Example items from this scale are: “I get satisfaction from competing with others”, “I often try to outperform others” and “I find competitive situations unpleasant” (reverse-scored item).

The Narcissistic Personality Inventory (Raskin and Terry 1988) was used to measure narcissism as a personality trait. This is a 40-item scale where participants choose which of two options best matches themselves, where the more narcissistic option is scored one point. Participants receive a score between 0 and 40, with a higher score indicating higher narcissism. It had a reliability of $\alpha = 0.88$ in Sample 1 and $\alpha = 0.90$ in Sample 2. An example item from this scale asks participants to choose between: A. “I am no better or worse than most people” and B. “I think I am a special person”, with B scored one point. Another example item asks participants to choose between: A. “I am going to be a great person” and B. “I hope I am going to be successful”, with A scored one point.

Procedure

In both samples, participants completed all questionnaires in randomized order for each participant. Both samples were collected on MTurk.com using Qualtrics software. The question about pet preferences was taken from Gosling, Sandy and Potter’s P(2010) study, and was administered towards the end of both questionnaires along with the demographic questions. Participants were simply asked “Do you consider yourself to be: a dog person, a cat person, both a cat person and a dog person, neither a cat person nor a dog person” and

were required to select one answer. Importantly, the wording of the question does not imply that one has to own a pet to identify as a cat person or dog person.

Results

The percentage of participants with each pet preference, broken down by gender, is presented in Table 1. The descriptive statistics for all preferences are presented in Table 2, showing the means and standard deviations for all personality variables in both samples.

Comparisons were conducted between dog and cat people, omitting the “both” and “neither” groups. As predicted, independent samples *t*-tests revealed that dog people were significantly higher than cat people on SDO (Sample 1: $t(286) = 4.06, p < 0.001, d = 0.49$; Sample 2: $t(296) = 2.67, p = 0.008, d = 0.32$) and competitiveness (Sample 1: $t(286) = 2.66, p = 0.008, d = 0.33$; Sample 2: $t(296) = 2.56, p = 0.011, d = 0.31$) in both samples. There was no significant difference in assertiveness or narcissism in either sample, although all differences were in the predicted direction.

There are known gender differences in SDO (Pratto et al. 1994) and narcissism (Tschanz, Morf, and Turner 1998). All variables were checked for sex differences in both samples, and means and standard deviations for females and males on all personality traits are presented in Table 3. In both samples, males were significantly higher than females on SDO (Sample 1: $t(504) = 5.40, p < 0.001, d = 0.49$, Sample 2: $t(501) = 4.79, p < 0.001, d = 0.43$), competitiveness (Sample 1: $t(504) = 5.31, p < 0.001, d = 0.47$, Sample 2: $t(501) = 5.63, p < 0.001, d = 0.49$), and narcissism (Sample 1: $t(504) = 3.75, p < 0.001, d = 0.34$, Sample 2: $t(501) = 5.59, p < 0.001, d = 0.50$), but there was no gender difference in assertiveness in either sample. Similarly there was a significant gender difference in pet preference in Sample 1, with women more likely to identify as cat people, $\chi^2(1, N = 288) = 8.61, p = 0.003, w = 0.17$, consistent with previous work (Edelson and Lester 1983; Perrine and Osbourne 1998),

although the gender difference was not significant in Sample 2, $\chi^2(1, N = 298) = 0.78, p = 0.377, w = 0.05$.

Given the gender differences in personality and pet preferences, personality differences between cat people and dog people were re-examined after including gender as a covariate in a series of ANCOVAs. For Sample 1, when gender was controlled, the effects for SDO, $F(1, 285) = 12.16, p = 0.001, \eta^2 = .041$, and competitiveness, $F(1, 285) = 4.40, p = 0.037, \eta^2 = .015$, remained significant. Similarly for Sample 2, when gender was controlled, SDO, $F(1, 295) = 6.40, p = 0.012, \eta^2 = .021$, and competitiveness, $F(1, 295) = 5.80, p = 0.017, \eta^2 = .019$, also remained significant.

Personality differences between cat and dog people were also examined separately within each gender. In Sample 1, female dog people ($M = 2.68, SD = 1.15$) were significantly higher than female cat people ($M = 2.09, SD = 0.90$) on SDO, $t(152) = 3.53, p = 0.001, d = .57$, but not on any other personality characteristics. In Sample 2, female dog people ($M = 2.47, SD = 1.16$) were significantly higher than female cat people ($M = 2.11, SD = 0.95$) on SDO, $t(153) = 2.07, p = 0.040, d = .20$. Female dog people ($M = 3.02, SD = 0.81$) were also significantly higher than female cat people ($M = 2.77, SD = 0.79$) on competitiveness, $t(153) = 1.96, p = 0.05, d = .32$, and female dog people ($M = 3.49, SD = 0.70$) were also significantly higher than female cat people ($M = 3.19, SD = 0.68$) on assertiveness, $t(153) = 2.64, p = 0.009, d = .43$. In Sample 1, male dog people ($M = 3.25, SD = 0.56$) were significantly higher than male cat people ($M = 2.88, SD = 0.82$) on competitiveness, $t(132) = 3.01, p = 0.003, d = .56$, but no other characteristics, and in Sample 2 there were no significant differences between male cat and dog people on any of the traits.

Discussion

As predicted, this study found that dog people were significantly higher than cat people on SDO and competitiveness in both samples. The effect sizes were generally small, with the exception of SDO in Sample 1, which was medium. This suggests that these differences between cat and dog people are robust but not large. However, contrary to predictions, no significant differences were found between cat people and dog people on assertiveness or narcissism in either sample. The SDO and competitiveness findings not only replicated across samples but persisted when gender was statistically controlled. This indicates that the differences between cat people and dog people on SDO and competitiveness cannot be explained by gender differences in pet preferences or personality. When the sample was broken down by gender, not all the differences between cat and dog people that were significant in the whole samples remained significant. In Sample 1, the difference in competitiveness for females was not significant, nor was the difference in SDO for males. For males in Sample 2, none of the personality differences between cat people and dog people were significant. The fact that some of the differences that were significant and replicated in the whole samples were not significant when these were broken down by gender may simply be due to the reduced sample sizes.

Our broad hypothesis, based on the idea of complementary personality characteristics, proposed that because dogs tend to be submissive to humans, they should be preferred by relatively dominant people. The finding that dog people were higher than cat people on SDO and competitiveness but not on interpersonal dominance or narcissism raises the question of why differences were found on some dominance-related traits but not others.

The specific relevance of SDO and competitiveness to pet preference suggests that issues of rank are implicated in the difference between cat people and dog people. SDO

involves the belief that higher-ranked groups should dominate lower-ranked groups, and that inequality and hierarchy are good and inevitable. Those who believe that superior groups are entitled to subservience from inferior groups may therefore prefer submissive pets, which complement their higher rank. Similarly, people who are high on competitiveness enjoy the sense of superiority that comes from success within competitive situations, and those with this desire for superiority might also prefer submissive pets. Given the association between SDO and political conservatism (Pratto et al. 1994), our findings imply that dogs may be more popular pet choices among conservatives. This implication is supported by a recent survey of pet ownership by the American Veterinary Medical Association (AVMA, 2012), which reported the 10 U.S. states with highest and lowest rates of household dog and cat ownership. Nine of the top 10 dog-owning states voted Republican in the 2012 Presidential Election, and 9 of the 10 bottom dog-owning states voted Democrat. No such pattern was obtained for cat ownership: the top and bottom 10 cat-owning states were both split 5:5 Republican and Democrat.

The fact that no significant difference was found between cat people and dog people on assertiveness indicates that the tendency towards interpersonal dominance is not related to having a preference for submissive pets. This lack of association may reflect the fact that interpersonal dominance, conceptualized as assertiveness, involves the agentic tendency to exert social influence, and this does not necessarily involve a desire for superiority over or submission from others. In contrast, the lack of a difference in narcissism between cat people and dog people, despite the relevance of rank and superiority to that trait, may reflect the primary focus of narcissism on self-perception rather than on interpersonal or intergroup relations, as with competitiveness and SDO. This possibility remains speculative, and further research is needed to disentangle dominance-related traits and to determine which are specifically relevant to pet preferences.

Our interpretation of our findings proposes that dog people enjoy the submissiveness of dogs because it complements their personality, but this proposal was not directly tested. In addition, we do not claim that desire for submissiveness or acceptance of hierarchy is the only basis for dog preference, or that all dog-lovers possess these traits. Future research could ask people directly whether they enjoy having their pets be submissive to them, and examine whether this predicts a preference for dogs rather than cats. This would clarify that it is this enjoyment of deference specifically that relates to preferring dogs, rather than some other factor underlying the correlation between preferring dogs and SDO and competitiveness. It could also clarify whether this correlation is driven by a desire or appreciation for deference from a pet among dog owners, a desire or appreciation for autonomy from a pet among cat owners, or both. Thus future research could examine not only the personality characteristics of cat and dog people, but the motives and values that underpin these preferences and their link to particular traits.

If it is true that people prefer pets that complement their personalities, future research could explore the specific characteristics of pets that people enjoy, and how these relate to their personality. If it is true that the behavior of pets complements that of their owners, then there may be other important ways in which people with different pet preferences differ psychologically. Finally, future studies might examine whether the observed pattern of findings replicates outside the USA, where the present study's samples were collected.

This study adds to the existing literature on personality differences between cat and dog people by investigating differences in a set of personality characteristics that had not been examined in previous research. The finding that dog people were higher than cat people on both SDO and competitiveness in two separate samples indicates a robust effect for these variables. Furthermore, a theory was presented arguing that people who have a preference for dominance should prefer dogs to cats because dogs, but not cats, are submissive to

humans, and their submissive behavior complements the personality of dog people. These findings suggest the preference for one particular pet over another is not a trivial matter of taste, but says something important about people's fundamental personality attributes and ways of seeing the world.

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Table 1

The percentage of participants with each pet preference in both samples.

	Sample 1				Sample 2			
	Dog	Cat	Both	Neither	Dog	Cat	Both	Neither
Females	46.6%	64.3%	70.9%	55.2%	50%	55.3%	55%	41.5%
Males	53.4%	35.7%	29.1%	44.8%	50%	44.7%	45%	58.5%
Total number	176	112	151	67	184	114	140	65
(percent)	(34.8%)	(22.1%)	(29.8%)	(13.2%)	(36.6%)	(22.7%)	(27.8%)	(12.9%)

Table 2

Means (standard deviations) of personality measures for all pet preferences in both samples.

Measure	Sample 1				Sample 2			
	Dog	Cat	Both	Neither	Dog	Cat	Both	Neither
SDO	2.86 (1.15)	2.31 (1.08)	2.50 (1.03)	2.66 (1.13)	2.70 (1.17)	2.33 (1.13)	2.43 (1.10)	2.91 (1.11)
Competitiveness	3.07 (0.67)	2.83 (0.79)	2.89 (0.73)	3.00 (0.75)	3.19 (0.77)	2.95 (0.79)	3.12 (0.75)	3.05 (0.74)
Assertiveness	3.32 (0.62)	3.26 (0.77)	3.33 (0.75)	3.29 (0.72)	3.42 (0.69)	3.26 (0.73)	3.46 (0.72)	3.28 (0.75)
Narcissism	12.80 (7.39)	11.17 (7.26)	11.13 (7.41)	12.10 (7.29)	14.20 (8.19)	12.74 (9.03)	14.24 (8.28)	15.11 (7.89)

Table 3

Means (standard deviations) of each personality trait by gender in both samples.

Measure	Sample 1		Sample 2	
	Female	Male	Female	Male
SDO	2.39 (1.04)	2.92 (1.15)	2.34 (1.08)	2.82 (1.17)
Competitiveness	2.81 (0.71)	3.15 (0.72)	2.92 (0.79)	3.29 (0.70)
Assertiveness	3.32 (0.70)	3.28 (0.72)	3.34 (0.74)	3.41 (0.69)
Narcissism	10.84 (7.16)	13.30 (7.44)	12.03 (8.00)	16.09 (8.29)