Exotic Animal Companions and the Personality of Their Owners

Andreas Hergovich, Ina Mauerer and Valentin Riemer
Department of Basic Research in Psychology, Faculty of Psychology, University of Vienna, Austria

ABSTRACT The present study explored sex-specific differences in the Big Five factors of personality between different pet ownership groups, in order to understand individual differences in the choice of companion animals. A total of 250 pet owners completed a German version of the NEO-Five Factor Inventory (NEO-FFI). For the first analysis, participants were divided into four broad groups: those owning traditional pets (e.g., cats, dogs), those owning cold-blooded exotic pets, those owning warm-blooded exotic pets, and those not owning animals. For the second analysis, participants were subdivided into nine groups, based on species of animal owned: cats, dogs, birds, fish, reptiles, spider/insect, small mammals, owners of many different animals, and non-owners. In both analyses, separate analyses of variance were applied to the scores of the NEO-FFI scales. Interaction effects between sex and several ownership groups on the traits Openness to Experience and Agreeableness were found in both analyses. Female owners of traditional pets scored, for example, significantly lower on openness to experience than female owners of cold-blooded exotic pets as well as male owners of traditional pets. Furthermore, female owners of cold-blooded exotic pets scored significantly higher on openness to experience than their male counterparts. Regarding agreeableness, male owners of cold-blooded exotic pets scored significantly lower than their female counterparts as well as male owners of traditional pets. These and other results indicate that personality may affect choice of pets—but in different directions for the two sexes.

Keywords: animal ownership, exotic animals, human–animal relationship, personality

Pets such as cats, dogs, or birds, or exotic animals like snakes, lizards, or spiders play an important role in people's lives. However, cats and dogs are still the most popular animals and may be referred to as traditional pets. In Germany, 16% of households own cats and 13.4% own dogs. Small mammals such as rabbits are found in 6.4% of German households, birds in 5.0%, fish in 4.7%, and 1.1% of...
households have terrariums (IVH 2007). When asked, cat owners considered their pets’ loyalty, affection and unconditional love as the main benefits of having them (Zasloff and Kidd 1994). Furthermore, children who grew up with cats or dogs were found to be more attached to their pets than owners who grew up with other types of animals (Triebenbacher 1998). In contrast, owners of less interactive pets such as fish and turtles valued other aspects of their relationship with their pets, such as relaxation and entertainment. Thus, it seems that the level of emotional human–animal attachment varies between different types of animals. In line with this research, Kidd and Kidd (1999) found that only 4% of aquarium owners considered their pets to be their companions, although in some cases turtle owners even mentioned their pets in their last will (Kampfer and Love 1998). However, different animal species do not only differ in the benefits they provide for their owners (e.g., affection, relaxation, entertainment) but also in the demands they place on them. These demands may be of a physical (e.g., walking the dog) or a psychological (e.g., interaction, patience, engagement, nurturance) nature.

**Personality and Animal Ownership**

Since different species possess different characteristics (leading to different benefits and demands), the question arises of whether there is such a thing as the perfect pet for a person with a specific personality profile. It seems likely that certain personality traits of owners, which are known to be relatively stable across life, may lead to a preference for a specific pet group with corresponding characteristics. It is plausible that more extravert individuals may, for example, seek animals which fulfill their need for communication and interaction, whereas pets which require regular and constant care and are hard to handle may be sought after by more conscientious individuals. In line with this reasoning, Kidd and Kidd (1980) advocated the matching of pet and owner as a basis for mutual benefits. Budge et al. (1998, p. 219) defined this compatibility as “the fit between the animal and the owner on physical, behavioral, and psychological dimensions.” Cavanaugh, Leonard and Scammon (2008) investigated whether personality complementing or matching would be best, but could not give a definite answer.

In order to get an idea of the demands made by different pet species on their owners, Kidd and Kidd (1998; 1999) asked owners of fish and birds to describe the ideal fish or bird owner. In both cases, patience was listed as the most important trait. Furthermore, the ideal fish owner was envisioned to be curious and committed, and the ideal bird owner was imagined to be friendly and serene. In a similar vein, Kidd, Kelley and Kidd (1983) found significant differences between the actual personality of turtle, snake, bird, and horse owners. Turtle owners described themselves as more reliable, rational, and goal-oriented. Snake owners described themselves as more relaxed, unconventional, and unpredictable than others, which mirrors the dangerous image of these animals. Bird owners were reported to be more polite, expressive, and caring. The authors also found sex-specific differences in personality: male horse owners described themselves to be more dominant and aggressive than owners of other animals, whereas female horse owners generally scored lower on the aggression scale. Furthermore, Kidd and Kidd (1980) showed that sex of the owner had a significant effect on the relationship between preferences for a pet (cat, dog, or pet in general) and self-reported traits like dominance or aggression. In general, higher values of dominance were only found for men who preferred dogs or pets in general, while only female cat-lovers described themselves as significantly less dominant when compared with the other groups. On the aggression scale, male dog-lovers scored significantly higher than all
the other groups, while female dog- and cat-lovers reported themselves to be less aggressive than all the other groups of pet preference. Johnson and Rule (1991) on the other hand did not find any significant differences between pet owners and non-owners regarding extraversion, neuroticism, and self-esteem.

Perrine and Osbourne (1998) investigated stereotypical assumptions about pets, by examining the characteristics people ascribe to dogs and cats. They asked people to label themselves either as “dog persons” or as “cat persons,” and examined the personality of these persons. “Dog persons” described themselves as more masculine, independent, and athletic than “cat persons.” Others described “dog persons” as more masculine, athletic, and dominant than cats. In a similar manner, Zasloff and Kidd (1994) described dogs as more affectionate and more interactive, but less independent, than cats.

Independently of the question whether owners of different animal species differ in their actual personality, the reasons for such differences are sometimes controversially discussed. On the one hand, pet owners could be victims of social stereotyping (Johnson and Rule 1991). Thus, assumptions about ascribed personality characteristics of pets, as investigated by Zasloff and Kidd (1994) and Perrine and Osbourne (1998), might influence the public image of the owner. For example, Gerries-Johnson and Kennedy (1995) found that people who were accompanied by dogs were rated as more likable than people who were accompanied by other animals. On the other hand, people with a certain personality may choose animals fitting their personality, as described beforehand. We think that, in view of the previous literature, the latter reasoning is more plausible.

Sex Differences
It is well established that the sexes differ systematically in their personality traits (for an overview, see Schmitt et al. 2008 and Lippa 2010). Generally, Borkenau and Ostendorf (2008) reported sex differences in personality traits, with women scoring significantly higher in all of the Big Five personality factors. For neuroticism (d = 0.44) and agreeableness (d = 0.36), medium and small effects were reported. For extraversion (d = 0.16), openness to experience (d = 0.014), and conscientiousness (d = 0.09), however, these differences constituted only very small effects, according to Cohen’s (1988) classification for effect size. As mentioned beforehand, previous research suggests that sex differences also play a major role in the relationship between personality and pet ownership (Kidd and Kidd 1980; Kidd, Kelley and Kidd 1983).

Research Questions and Hypotheses
Previous studies attempted to compare the personalities of owners of different pets, but the results are mixed and unclear. However, very few studies have included owners of exotic animals in their investigations. Furthermore, another reason for the previous mixed results could be due to not incorporating sex differences into the analyses. The present study tries to bridge this gap by including exotic pets and by examining sex-specific differences, in order to provide a comprehensive and clear description of individual differences in owner personality, depending on the type of pet.

The main research question of the present study is whether there are sex-specific differences in the personality traits of owners of different pet groups and non-owners. This led us to two hypotheses, with different levels of abstraction:

Hypothesis 1: There are sex-specific differences in personality between four groups: owners of traditional pets, warm-blooded exotic animals, cold-blooded exotic animals, and non-owners.
The second hypothesis refers to a more specific level—on the level of individual species:
Hypothesis 2: There are sex-specific differences in personality between owners of seven different species of animals (cats, dogs, small mammals, birds, fish, reptiles, spiders/insects), owners of more than two different animals, and non-owners.

**Taxonomy of Animals and Definition of Exotic Pets**

Animals can be classified by using taxonomies in which they are named and arranged in a hierarchical order. The first distinction is between protozoa (monocellular organisms) and metazoan (multicellular organisms) and is followed by classes, genera or species. In order to keep the names of the groups of animals in this study clear, the term species is used for orders (spiders, rodents), classes (reptiles, birds, fish, insects) and species (dogs, cats). Animals can also be distinguished by their thermoregulation into warm-blooded (homeothermic) and cold-blooded (poikilothermic) animals. Birds and mammals are homeothermic, all other animals are poikilothermic. The term group is used to sum up warm-blooded and cold-blooded animals and traditional and exotic pets.

A unitary definition of "exotic pets" does not exist. In our study, the definition of the American Veterinary Medical Association was used, which has been used already in previous research (Brown and Nye 2006). According to this definition, exotic animals are all animals not pertaining to the group of traditional animals and farm animals such as "dogs, cats, cows, pigs, sheep, goats, and poultry" (Brown and Nye 2006, p. 226). The group of exotic animals includes fish, ferrets, rabbits, hamsters, guinea pigs, gerbils, other rodents, turtles, snakes, lizards, other reptiles, and birds. To facilitate data analysis, exotic pets were categorized into five/two groups (depending on the hypothesis) in the present study: warm-blooded exotic animals (small mammals, birds) and cold-blooded exotic animals (fish, reptiles, spiders/insects). One residual category included owners of many different animals (exotic or non-exotic or a combination of both). These groups were compared with each other, with the owners of cats and dogs (traditional pets), and with people who did not own pets.

**Methods**

**Participants and Procedure**

Two hundred and fifty participants (140 [56%] women, 110 [44%] men), with ages ranging from 16 to 68 years ($M = 29.0$, $SD = 11.09$), were systematically recruited at animal fairs and animal clubs (dog club, aquarist club, tarantula club) in Austria and via personal contacts, between May 2008 and February 2009. Each participant was asked to complete a questionnaire. Most were Austrian (87%). Regarding educational qualification, most participants had graduated from high school (47%), 16% had graduated from a college, 11% had finished a vocational secondary school, 21% had finished their apprenticeships, and 5% had finished primary school.

**Questionnaire Design**

The questionnaire consisted of nine pages and was in German. It contained socio-demographic questions (sex, age, educational qualification, marital status, number of children, number of people living in the household), questions about pet ownership, and a personality questionnaire. Details about animals owned by other people in the same household were not recorded.

**Pet Ownership:** The participants had to give details about their current pets (species, number of pets, duration of ownership), about their previous pets (previously owned pets, pets they had grown up with, at what stage in their lives they had owned pets) and the kinds of animals they
planned to have in the future. Non-owners were only given questions about their previous pets and any plans for future pets.

**Personality:** Participants completed the NEO-Five Factor Inventory (NEO-FFI) by Costa and McCrae (German version: Borkenau and Ostendorf 1993), which measures the Big Five dimensions of personality: Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C). This form consists of 60 items, with each response given on a 5-point Likert scale, ranging from 0 to 4.

**Statistical Analysis**
For the data analysis, the 250 participants were divided into eight different groups of animal owner (cats, dogs, small mammals, birds, fish, reptiles, spiders/insects, many animals), consisting of 25 persons each, and a control group of people who did not currently own pets ($n = 50$). All statistical analyses were conducted using SPSS 16.0 (Chicago, IL, USA).

**Results**

**Exotic Pet Groups**
In Table 1 the classification and distribution of exotic animal groups are reported. Most participants owned more than one animal, but in order to be assigned to a pet ownership group, all animals owned by one person had to pertain to the same group. There were two exceptions: (1) frogs (i.e., amphibians) were always owned together with reptiles, and (2) scorpions (i.e., arachnids) were always owned together with reptiles or spiders. Both were included in the group of the co-owned animals. If people owned pets pertaining to more than two different groups, they were assigned to the group “many animals.”

**Hypothesis 1**
To compare personalities of owners of different pet groups, participants were assigned to four groups: traditional pets (cats and dogs), cold-blooded exotic (fish, reptiles, and spiders/insects), warm-blooded exotic (small mammals and birds), and non-owners. Subsequently, 4 (Ownership Group) × 2 (Sex) ANOVAs were conducted on each of the five NEO-FFI scores (dependent variables), followed by post-hoc tests using the Bonferroni correction. Since homogeneity of variances was not found, 128 participants (64 males and females each) were picked randomly and distributed equally over all groups. While no main effects could be identified, significant interaction effects were found for the personality factors Openness to Experience and Agreeableness (see Table 2).

As shown in Table 2, women owning traditional pets had a tendency to be less open to experience than those owning cold-blooded exotic pets. Furthermore, male owners of traditional pets rated themselves to be significantly more agreeable than male owners of cold-blooded exotic pets. Among owners of traditional pets and warm-blooded exotic pets, women were significantly less open to experience than men. In contrast, among owners of cold-blooded exotic pets, women were significantly more open to experience and more agreeable than men.

**Hypothesis 2**
In order to compare the personalities of owners of different pet species, all eight pet groups (cat, dog, small mammal, bird, fish, reptile, spider/insect, many animals) were included, with 25 participants in each category. Additionally, 25 non-owners were randomly chosen as a ninth category. We then conducted 9 (Group) × 2 (Sex) ANOVAs on each of the five personality scores (dependent variables), followed by post-hoc tests using the Bonferroni correction.
Significant main effects of sex on Neuroticism and Agreeableness were found. Women scored significantly higher on neuroticism ($M_{female} = 21.39$, $SD = 7.79$; $M_{male} = 18.24$, $SD = 8.30$; $F = 2.92, p < 0.05$) and agreeableness ($M_{female} = 32.89$, $SD = 5.73$; $M_{male} = 30.63$, $SD = 6.06$; $F = 1.68, p < 0.01$). Furthermore, interaction effects between sex and pet species on Openness to Experience and Agreeableness were found (see Table 3). Concerning agreeableness, female owners of spiders and/or insects as well as of birds showed significantly higher scores than male owners of the same species. Also, women owning spiders/insects and reptiles were significantly more open to experience than their male counterparts. In contrast, male owners of cats and small mammals scored significantly higher than females in the same group. Within sex, there was only one significant difference: women owning reptiles rated themselves to be significantly more open to experience than those owning small mammals.

Table 1. Classification and number of each sex and pet species within the exotic pet groups ($n = 25$ for each group).

<table>
<thead>
<tr>
<th>Pet Group</th>
<th>Male</th>
<th>Female</th>
<th>Rats</th>
<th>Mice</th>
<th>Gerbils</th>
<th>Guinea pigs</th>
<th>Hamsters</th>
<th>Ferrets</th>
<th>Chinchillas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Mammals</td>
<td>8 (32%)</td>
<td>17 (68%)</td>
<td>12 (48%)</td>
<td>7 (28%)</td>
<td>4 (16%)</td>
<td>3 (12%)</td>
<td>2 (8%)</td>
<td>2 (8%)</td>
<td></td>
</tr>
<tr>
<td>Birds</td>
<td>8 (32%)</td>
<td>17 (68%)</td>
<td>10 (40%)</td>
<td>6 (24%)</td>
<td>5 (20%)</td>
<td>4 (16%)</td>
<td>3 (12%)</td>
<td></td>
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</tr>
<tr>
<td>Fish</td>
<td>11 (44%)</td>
<td>14 (56%)</td>
<td>11 (46%)</td>
<td>9 (38%)</td>
<td>9 (38%)</td>
<td>9 (38%)</td>
<td>6 (25%)</td>
<td>8 (33%)</td>
<td></td>
</tr>
<tr>
<td>Reptiles</td>
<td>13 (52%)</td>
<td>12 (48%)</td>
<td>20 (80%)</td>
<td>10 (40%)</td>
<td>3 (12%)</td>
<td>2 (8%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiders/Insects</td>
<td>16 (64%)</td>
<td>9 (36%)</td>
<td>21 (84%)</td>
<td>7 (28%)</td>
<td>2 (8%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Animals</td>
<td>11 (44%)</td>
<td>14 (56%)</td>
<td>18 (72%)</td>
<td>18 (72%)</td>
<td>17 (68%)</td>
<td>15 (60%)</td>
<td>12 (48%)</td>
<td>11 (44%)</td>
<td>6 (24%)</td>
</tr>
</tbody>
</table>

Note: Most participants owned more than one animal. To be assigned to one group of exotic pets, all animals owned by the participant had to pertain to the same pet group. Since none of the participants owned scorpions and frogs exclusively, scorpion and frog owners were included in the group of the co-owned animals (frogs: reptiles; scorpions: reptiles and spiders/insects).
### Table 2. Means (SD) and univariate ANOVA results for the interaction between sex and group on NEO-FFI scores of Openness to Experience and Agreeableness.

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>F</th>
<th>η²</th>
<th>Traditional Pets (a)</th>
<th>Cold-Blooded Exotic (b)</th>
<th>Warm-Blooded Exotic</th>
<th>Non-Owner</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>3, 120</td>
<td>4.67**</td>
<td>0.105</td>
<td>33.19 (5.96)</td>
<td>28.06** (7.67)</td>
<td>29.94 (5.86)</td>
<td>34.56** (6.05)</td>
<td>33.75 (6.06)</td>
<td>28.88* (6.29)</td>
<td>33.44 (6.66)</td>
<td>(7.15)</td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>3, 120</td>
<td>2.70*</td>
<td>0.063</td>
<td>34.19 (6.84)</td>
<td>31.00 (7.00)</td>
<td>27.19* (5.87)</td>
<td>33.00* (6.93)</td>
<td>29.56 (6.05)</td>
<td>31.19 (6.64)</td>
<td>32.13 (4.63)</td>
<td>(4.99)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Participants were equally distributed in each group (n = 16, total n = 128). Within sex, means with a superscript are significantly different from groups represented by the superscripts at p < 0.05 (male) and p < 0.10 (female). Means with asterisks are significantly different from other means within the same group.

* p < 0.05; ** p < 0.01.

### Table 3. Means (SD) and univariate ANOVA results for the interaction between sex and pet species on NEO-FFI scores of Openness to Experience and Agreeableness.

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>η²</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(n = 10)</td>
<td>(n = 15)</td>
<td>(n = 8)</td>
<td>(n = 17)</td>
<td>(n = 8)</td>
<td>(n = 17)</td>
<td>(n = 10)</td>
<td>(n = 12)</td>
<td>(n = 16)</td>
<td>(n = 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>3.29***</td>
<td>0.11</td>
<td>32.50 (5.34)</td>
<td>27.73* (6.85)</td>
<td>34.88 (5.46)</td>
<td>26.65** (7.41)</td>
<td>32.63 (6.78)</td>
<td>30.71 (5.60)</td>
<td>28.15 (5.71)</td>
<td>32.92* (6.67)</td>
<td>28.56 (5.56)</td>
<td>35.56*** (6.41)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td>2.58**</td>
<td>0.09</td>
<td>33.80 (5.59)</td>
<td>29.80 (6.87)</td>
<td>32.50 (7.80)</td>
<td>30.59 (7.68)</td>
<td>26.33 (7.63)</td>
<td>35.35*** (5.43)</td>
<td>27.92 (4.80)</td>
<td>31.50 (6.07)</td>
<td>28.50 (6.06)</td>
<td>33.56* (5.83)</td>
<td></td>
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</tr>
</tbody>
</table>

Note: For better readability, only pet species with significant differences are reported. Within sex, means with a superscript are significantly different from pet species represented by the superscript at p < 0.05. Means with asterisks are significantly different from other means within the same pet species.

df = 8, 207; * p < 0.10; ** p < 0.05; *** p < 0.01.
Discussion

The present study attempted to describe personality differences in owners of different pets, focusing on exotic pets. The comparison of the owners of small mammals, birds, fish, reptiles, spiders, insects, and owners of many different animals, as well as with the owners of cats or dogs and with non-owners, regardless of sex, yielded no significant results—neither did the comparison between the owner groups of traditional, warm-blooded exotic, cold-blooded exotic animals, and non-owners. However, when sex-specific differences were taken into consideration, there were significant differences and tendencies in the personality dimensions Openness to Experience and Agreeableness, with women scoring higher in both dimensions.

The dimension Openness to Experience reflects interest in new experiences and impressions. People scoring high on this dimension are described as inquisitive, intellectual, visionary, and artistic (Borkenau and Ostendorf 1993). Low scores indicate more conservative attitudes. Women owning cold-blooded exotic pets (fish, reptiles, spiders, and insects) were more open to experience than those owning traditional pets. Within exotic pets, female owners of small mammals were less open to experience than female owners of spiders and insects. Similarly, Kidd, Kelley and Kidd (1983) found snake owners to be unconventional and eager for new experiences. This result is consistent with the expectation that people who are eager to experience new things are attracted to extraordinary pets. However, this seems to be true only for women, since men did not show significant differences in openness to experience across different species.

Within the group of owners of traditional pets, women were significantly less open to experience than men, and yet women report themselves as more open to new experiences than men, in general (Ostendorf and Borkenau 2008). Moreover, female owners of traditional pets scored significantly lower on openness to experience than females of the reference population (reference values from Ostendorf and Borkenau 2008; $t = -2.775, df = 7519, p = 0.006$), while there was no significant difference between male owners of traditional pets and the male reference sample. Similar results were found for owners of warm-blooded exotic animals, with females scoring significantly lower on openness to experience than both the male owners and the female reference sample ($t = -2.255, df = 7519, p = 0.024$). The latter result is somewhat surprising, as one would expect high scores on openness to experience in people who decide to own an exotic pet (as was the case with the owners of cold-blooded exotic pets). However, this might well be an artifact of classification, since most small mammals (i.e., hamsters, mice, guinea pigs, rats, and gerbils) may not be considered "exotic" in the sense of being an unusual pet to keep any more. Furthermore, when female owners of small mammals and birds are investigated separately, the difference compared with the reference sample becomes non-significant for bird owners. For cold-blooded exotic pets, the effect of sex difference in openness to experience is consistent with the reference population. Surprisingly, neither male nor female owners of cold-blooded exotic pets scored significantly differently from the normative sample, indicating that owners of reptiles, spiders, and insects are not more (or less) open to experience than average. Male owners of cold-blooded exotic pets scored lower than male owners of traditional pets, however, this difference did not turn out to be significant.

The trait Agreeableness refers to interpersonal behavior. High scores indicate altruism, understanding, helpfulness, and flexibility. Low scores describe people who are egocentric, competitive, and mistrustful (Borkenau and Ostendorf 1993). In the present study, men owning traditional animals (cats, dogs) were found to be more agreeable than men owning...
cold-blooded exotic pets as well as being significantly more agreeable than the reference sample \((t = 3.614, \text{df} = 4233, p < 0.001)\). In line with this, Vidović, Štetić and Bratko (1999) found that dog owners scored higher in pro-social orientation, and Klaphake and Smith (2002) found that owners of reptiles, birds, and small mammals had only average empathy scores. Dogs in particular require people to take them out for a walk and thus facilitate establishing contacts with other people (Collis and McNicholas 1998), which also requires interpersonal skills.

Miller and Lago (1990) found that owner personality could be influenced by the reaction of other people towards their pets. People who like dogs also prefer dog owners to owners of other animals (Geries-Johnson and Kennedy 1995). Owners of cold-blooded exotic animals might experience more negative reactions to their pets which may create mistrust towards others. In contrast to this finding, women owning exotic pets do not seem to be less agreeable than owners of traditional pets. In fact, female participants owning cold-blooded exotic pets reached the highest agreeableness scores of all female pet owners, although the difference was not statistically significant. Furthermore, female owners of cold-blooded exotic pets reported themselves to be significantly more agreeable than male owners of the same group. This result is consistent with that found by Ostendorf and Borkenau (2008): men are less agreeable than women in the general population.

In summary, evidence was found that pet ownership and personality are associated. Female owners of traditional pets such as cats or dogs and small mammals showed less openness to experience than female owners of exotic pets like reptiles, spiders, and/or insects. For male pet owners, agreeableness turned out to have a significant effect in so far as male owners of traditional pets were more agreeable than the reference population, whereas men owning exotic pets showed very low agreeableness.

**Limitations and Future Outlook**

While it was relatively easy to recruit owners of traditional pets, owners of exotic animals (especially cold-blooded exotic) were less accessible. Therefore it was necessary to systematically equalize sample sizes, resulting in low test power and under-representation of traditional pet owners compared with owners of exotic pets. Furthermore, no data on quality of the relationship between participants and their pets was collected. It might well be that attachment has a crucial influence on the relationship between personality and pet ownership (Johnson and Rule 1991). However, this is difficult to rectify at present, as measurements of attachment are only available for traditional pets. It does sound plausible, though, that attachment to exotic pets might differ both in quantity and in quality from attachment to traditional pets.

At the moment, one can only speculate about the underlying causes of the association between pet ownership and owner personality. On the one hand, it is possible that people with a certain personality choose an animal that matches their personality—as a positive side-effect, the pet could benefit as well from the matching. Certainly, it cannot be completely ruled out that the ascribed personality of the animal has some influence on the personality of the owner, especially because personality (although relatively stable throughout life) can be subject to situational factors over the long term (Pervin 1994; Zuckerman 2004). In order to provide a conclusive answer to the questions of causality, future research should examine possible changes in personality using a longitudinal approach. However, we can be quite confident that the initial decision for a specific animal cannot be shaped by the animal but should merely reflect the personality of the owner.
Exotic Animal Companions and the Personality of Their Owners

Driscoll (1995) examined attitudes towards animals in general, including several species that fall into our classification of exotic pets. It was shown that a cluster containing the species tarantula, rattlesnake, rat, mosquito, skunk, lion, and shark was rated considerably less useful, less smart, less lovable, and more dangerous than other clusters of species. It seems plausible that owners of those pets generally need to be more open to new experiences (as was shown in our study for female owners of cold-blooded exotic pets only) and also may consider themselves to be less agreeable than others, as they prefer animals that are commonly seen as dangerous (true for male owners of cold-blooded exotic pets only in our study). However, owners of reptiles, insects, or spiders in the present study seem to have more positive attitudes towards these species than did the participants in Driscoll's (1995) study. Therefore, in addition to the personality of owners of exotic pets, attitudes towards the pet owned should also be taken into account in future studies, as this may help us to understand the specific sex effects found in the present study.

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References


