

Research Report

Do Dogs Resemble Their Owners?

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ABSTRACT

We examined whether the frequent casual reports of people resembling their pets are accurate by having observers attempt to match dogs with their owners. We further explored whether any ability of observers to make such matches is due to people selecting dogs who resemble them, in which case the resemblance should be greater for predictable purebreds than for nonpurebreds, or is due to convergence, in which case the resemblance should grow with duration of ownership. Forty-five dogs and their owners were photographed separately, and judges were shown one owner, that owner's dog, and one other dog, with the task of picking out the true match. The results were consistent with a selection account: Observers were able to match only purebred dogs with their owners, and there was no relation between the ability to pair a person with his or her pet and the time they had cohabited. The ability to match people and pets did not seem to rely on any simple trait matching (e.g., size or hairiness). The results suggest that when people pick a pet, they seek one that, at some level, resembles them, and when they get a purebred, they get what they want.

It has been asserted, by children's-book illustrators, at dog shows, and by strangers passing on the street, that people often bear a striking resemblance to their pets. We examined whether such observations are empirically warranted by testing whether people can match dogs with their owners.

The fact that people remark on the resemblance between people and their dogs is not in itself evidence that such a similarity generally exists, as people may attend to the few cases in which there is some overlap in appearance. People may also take advantage of the fact that they know which people and pets are paired, given that they are often connected by a leash, and may then search, post hoc, for features that match.

There are two basic mechanisms that could create an actual similarity between people and their dogs. People might select dogs who are like them, or the features of people and their dogs might converge over time. There is some evidence that the facial appearance of married couples converges over time (Zajonc, Adelman, Murphy, & Niedenthal, 1987); judges have rated couples physically more similar after 25 years of marriage than as newlyweds. If a similar process were to occur with people and their pets, then one might find that the ability to match them grows with the length of ownership. In contrast, if owners resemble their dogs because of selection rather than convergence, then there should be no correlation between the degree of resemblance and the time spent together. However, there ought to be, in this case, a greater similarity between people and their purebred dogs than between people and their nonpurebreds. A nonpurebred puppy's final appearance is unpredictable, and so the resemblance between owner and dog should be confined to the much more predictable purebreds. It is also likely that

the acquisition of a purebred dog involves more foresight and deliberation than the adoption of a nonpurebred, and so should better reflect the owner's desires.

There is some evidence that people's taste in animals is associated with their own appearance: Coren (1999) found that women with long hair gave higher ratings of attractiveness, friendliness, loyalty, and intelligence to dogs with floppy, rather than pricked, ears. There is also evidence that people have at least rudimentary stereotypes of the type of pet that a person might own (Budge, Spicer, St. George, & Jones, 1997). In pairing pictures of humans and a variety of animals, judges were more likely to match cats and small dogs with women and large dogs with males, though the researchers did not examine whether this stereotype reflects actual ownership patterns.

To examine whether people do look like their pets, and to explore the mechanism underlying any such resemblance, we asked judges to match photographs of owners with their dogs, both purebreds and nonpurebreds.

METHOD

Pictures of 45 dogs and, separately, their owners were taken at three dog parks. Fifteen such pairs were photographed in each location. Owners were approached at random and asked if they would be willing to help us with a psychology experiment examining the relation between owners and their dogs. The pictures were taken so that the background was different for dog and owner. This ensured that raters would not be able to match dog and owner by simply comparing the backgrounds in the photographs. Owners were photographed from the waist up, facing forward, wearing whatever clothes they had chosen for going to the park and whatever facial expression they chose for the picture. Dogs were photographed facing forward, with the whole dog visible; they made whatever facial expression they chose, exhibiting rather more lolling tongues than the owners.

Owners (24 women and 21 men, with a mean age of 36 years) were asked to indicate the breed of their dog and how long they had owned the dog. Because of an error in procedure, data on length of ownership were available from only two of the parks ($n = 30$). Overall, there were 25 purebred dogs (representing 15 different breeds) and 20 nonpurebreds (mean age = 3.7 years, range = 4 months to 12.5 years). Owners had been with their dogs for an average of 2.9 years, with 76% of the owners acquiring their dog in its 1st year. There was no significant difference between purebred and nonpurebred owners in length of ownership or age of the dogs at adoption.

Each set of 15 pictures was viewed by 28 naive undergraduate judges who were participating for course credit. We constructed triads of pictures, each consisting of one owner, that owner's dog, and one other dog photographed at the same park. Each judge was shown the 15 owners from one dog park, one at a time, and instructed to identify which of the two possible dogs belonged to each person. In a Latin square design, each of the 14 incorrect dogs served as a foil for each dog, with the order of presentation randomized. Thus, within each set of 15 pairs, each owner-and-dog pair was presented with every other dog photographed at that park. A dog was regarded as resembling its owner if a majority of judges (i.e., more than 14) matched the pair.

RESULTS

There was no evidence of any resemblance between nonpurebreds and their owners; of the 20 such dogs, there were 7 matches, 4 ties, and 9 misses, $\chi^2(2, N = 20) = 0.64$, n.s., r -equivalent = -

.14 (Rosenthal & Rubin, in press). However, purebreds could be matched with their owners; of the 25 purebreds, there were 16 matches, 0 ties, and 9 misses, $\chi^2(2, N = 25) = 6.75, p < .05, r$ -equivalent = .37. The difference between the matchability of nonpurebreds and purebreds was significant, $\chi^2(2, N = 45) = 7.03, p < .05, \phi = .40$ (Cohen, 1969).

The results were consistent with the notion that the ability to match is due to selection rather than convergence, as there was no correlation between how long a dog and owner had been together and the number of judges who correctly picked that dog and owner as belonging together ($r = .12$, n.s., over the 30 pairs for whom this information was available).

Further analyses explored the possible origin of the resemblance between purebred dogs and their owners. Three undergraduates naive to the purpose of the experiment rated several features of the owners and purebred dogs independently, and we then correlated the ratings of dogs and their owners on these dimensions. If the judges had matched pairs on the basis of these characteristics, then we would find significant correlations. The three raters judged hairiness, size, sharpness of features, attractiveness, perceived friendliness, and perceived energy level using 6-point Likert-type scales (running, e.g., from 1, *not hairy*, to 6, *very hairy*). The reliability of the ratings on each dimension was examined factor analytically, allowing us to determine how each individual's ratings loaded on the latent concept (Schuster & Smith, 2002). All dimensions displayed adequate reliability for both human and canine photographs: Using principal components extraction with varimax rotation, we obtained only one factor for each attribute; eigenvalues were all greater than 1.7, and the factors accounted for between 58 and 88% of the variability.

For none of the rated characteristics, however, was the correlation between person and pet significant, although there was a suggestion of a trend for people and their purebred pets to be rated similarly on friendliness ($r = .31, p = .13$). To examine whether any rated similarity would emerge when all the variables were considered simultaneously, we performed exploratory canonical correlation analyses. No significant relation between person and pet was found for any combination of the attributes, approximate Pillai's $F(64, 128) = 0.81$, n.s. We also examined whether, as suggested by the findings of Budge et al. (1997), the judges' accuracy with purebreds could be based on differences between the pets of men and women. Dogs with male and female owners did not differ on any of the rated characteristics, all $t_s(23) < 1.1$, n.s. Finally, in light of the findings of Coren (1999), we examined if the hairstyle of owners (long or short) was related to the ear style (lop or pricked) of their dogs. There was no association for female owners ($\phi = .03$, n.s.) or female and male owners combined ($\phi = .19$, n.s.).

DISCUSSION

The results suggest that when people pick a pet, they seek one that, at some level, resembles them, and when they get a purebred, they get what they want. The resemblance between dogs and their owners was confined to purebreds, and there was no correlation between length of ownership and similarity. Both findings are consistent with a selection, but not a convergence, account of the phenomenon.

The results do not reveal at what level the resemblance between person and pet exists. It could be at the level of physical attributes, with owners of wolfhounds being tall and elegant, or at a stylistic level, with retriever owners being warm and friendly. There are personality differences between owners of various sorts of pets (Podberscek & Gosling, 2000), and our judges could have used what they knew about temperament differences between breeds to help

them make matches. It does not, however, appear that they used any single obvious characteristic to make the matches, because we found no significant correlations between dogs and owners on the six dimensions we examined. That is, the judges did not make correct matches by simply matching hairy people with hairy dogs, or big people with big dogs. There was some suggestion that people and pets were similar in apparent friendliness, but the effect was of modest size, and not statistically significant. It may be that the judges used some other more subtle trait, or based their judgments on a more configural analysis of the animals. We also cannot know from these data if people can tell whether a particular person is an owner of a dog, as opposed to, say, a weasel. However, it does appear that, as in the case of selecting a spouse (Berscheid & Reis, 1998), people want a creature like themselves.

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