THE BEST PET FOR YOU

By Gary Turner

**CLAIM**

Dogs are better than cats

**RATIONALE**

Humans have been domesticating animals for tens of thousands of years (National Geographic, 2022). This has allowed humans to rapidly increase the harvesting of animal resources for food, and for clothing (leather and fur). However, the domestication of animals has also been for companionship. Cats and dogs have been domesticated and bred specifically in a more modern world to serve as companions, or pets for humans. This practice is wide spread to the point where it is estimated that there are over 470 million pet dogs, and over 220 million pet cats worldwide (A-Z-Animals, 2023).

The ownership of a pet cat or dog has been shown to have significant benefits to owners of these pets in terms of increased physical health, less loneliness and depressive symptoms, and an increase in self-esteem and social interactions (Utz, 2014; Amiot, 2016; Guastello, 2017). The ownership of a pet cat or pet dog can mean tangible and measurable benefits to their owners.

However, these benefits are not guaranteed, and are likely to be very connected to two very important aspects of the pet owner relationship. The first is the owner’s perception of a close and caring relationship with their pet. This perception need not be real or valid to anyone else, but once it is held by the owner, the perception of a close pet relationship plays a significant role in providing positive outcomes for the pet owner (González, 2011). The second factor of pet ownership is degree of attachment the pet makes to the owner. This factor appears to reinforce the owner’s perceptions of a caring relationship, and well as influence the bonding between the owner and pet, which significantly affects the benefits experienced by the owner (Payne, 2015).

In combination, the two factors of owner’s perception and pet attachment would characterise an owner-pet relationship which would provide the most beneficial outcomes for the owner. Therefore, purely in terms of pet ownership, a question worth investigation is whether dogs better pets than cats in terms of the owners perception of the relationship to the pet, and the emotional attachment of the pet to the owner?”

**RESEARCH QUESTION**

To what degree are dogs better pets than cats in terms of the owners perception of the relationship to the pet, and the emotional attachment of the pet to the owner?

**DATA SOURCES**

Data Set 1

Published in the Journal *Animals,* by MDPI, in *September, 2021; issue 11.* The article was Pet–Human Relationships: Dogs versus Cats. Authors - *Monica Gonzalez-Ramirez* and *Rene Landero-Hernandez*. Animals is an international peer reviewed journal devoted entirely to animal studies.

Data Set 2

Published in the journal *Current biology, Sept 2019, issue 29,* published by Elsevier Ltd. The article was Attachment bonds between domestic cats and humans. Authors - Kristyn Vitale, Alexandra Behnke, and Monique Udell. *Current Biology* is an international bi-weekly peer reviewed journal.

Data Set 3 Published in the Journal *Attachment and Human Development,* in *2019, issue 21*. The article was Attachment security in companion dogs. Authors - *J. Solomon, A. Beetz, I. Schoberl, N. Gee,* and *K. Kotrschal.* This journal is an international peer review journal.

Should have all my marks for RESEARCH and PLANNING by now. The structure I use makes marking it very obvious. However, you should check with you teacher to see if they are okay with this structure and these headings

**ANALYSIS and INTERPRETATION**

Data Set 1 - The data table shows 132 owner (of both a cat and a dog) responses to the MDORS (Monash Dog Owner Response Scale) and CORS (Cat Owners Response Scale) surveys. Scores are a maximum of five and a minimum of zero. The mean values (M) are used for analysis.

| **Variable** | **Cat Me** | **Cat M** | **Cat SD** | **Alpha** | **Dog Me** | **Dog M** | **Dog SD** | **Alpha** | **Wilcoxon Rank Test** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pet–owner interaction | 4.8 | 4.6 | 0.6 | 0.81 | 3.4 | 3.3 | 0.8 | 0.85 | Z = −9.300; *p* = 0.001 |
| Perceived emotional closeness | 3.9 | 3.9 | 0.7 | 0.88 | 4.5 | 4.3 | 0.9 | 0.94 | Z = −6.522; *p* = 0.001 |
| Perceived costs | 1.7 | 1.7 | 0.5 | 0.68 | 1.9 | 2.2 | 0.8 | 0.86 | Z = −6.059; *p* = 0.001 |
| CORS/MDORS | 4.2 | 4.2 | 0.5 | 0.88 | 3.9 | 3.8 | 0.6 | 0.92 | Z = −6.801; *p* = 0.001 |

Me: Median; M: Mean; SD: Standard deviation.

**IDENTIFICATION OF TRENDS**

Data set one indicates that cat owners have significantly more care and affection interactions with their cat than with their dog. The difference was significant (*p=0.001)* and consistent (alpha scores >0.7), with a mean interaction score for cats of 4.6 versus a lower score of 3.3 for dogs.

Owner’s perception of emotional closeness to their cat was slightly lower than that recorded for dogs, indicating that owners felt a closer attachment to their dogs than their cat. The scores for emotional closeness for dogs was 4.3 which was only slightly higher than cats at 3.9, however both scores showed consistency (high alpha scores) and significance *(p=0.001)*.

In terms of perceived cost (including monetary and “inconvenience” cost) to owners, cat owners report significantly lower costs for their cat than for their dog. The mean score for Cat cost was 1.7, compared to the mean cost score for Dogs of 2.2. Both scores showed significance *(p=0.001)*, but the reported score for cats did not quite reach the criteria for consistence (alpha score of 0.68, and 0.07 is consider the threshold for consistency in a survey score).

**LIMITATIONS OF THE DATA SET**

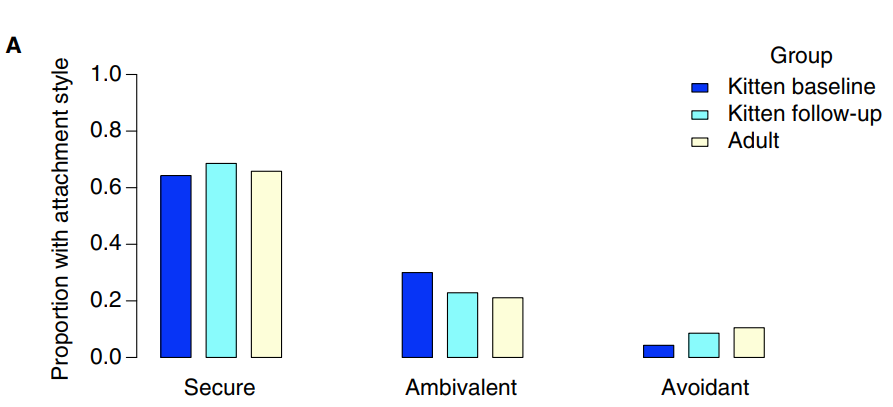
Data set one was compiled from owner responses to the MDORS and CORS surveys. Surveys can inherently contain bias due to the reliance of the respondents perceptions and not the measurement of empirical data. However, in this instance it is the perceptions that were being measured so the use of survey responses is not a limitation of this data set.

One limitation which does arise from this is that the 132 respondents were not randomly selected, but self-selected by responding to an online invitation. This may produce bias in the surveys as owners which answer an online invitation may not broadly represent the perceptions of all pet owners.

There was a sample size of 132 used, however there was no indication that the breeds of dogs or cats was evenly represented. Thus, it is likely that the sample does not represent cats in general or dogs in general. This is significant limitation of the study in terms of how applicable it is to a broader population of cat and dog pets.

Note the change in structure from identifying trends to identifying limitations. In identifying trends, I start with a statement of the trend and follow with justify using data. When it came to limitations, I find it way more difficult to clearly separate the identifying and the justifying – so I find it easier to explain what I believe the limitation to be and what it is caused by (use data if possible), and then finish with a statement about how this limits the data.

I really recommend identifying trends the way I suggest…very simple, easy to guarantee your mark. Limitations you can choose which style you like best. Justifying the limitations means you have to clearly explain both the cause of the limitations, and the way in which it limits the data.

Data Set 2 - Shows the proportion (percentage) of attachment formed by 108 (in total) Kittens, trained kittens (Kitten follow up), and adult cats. Attachment relationships are categorised as secure (=strong or good), ambivalent (meaning the cat requires reassurance of attachment), and avoidant (meaning the cat avoids the owner)

**IDENTIFICATION OF TRENDS**

Cats generally form secure attachments to their owners. Sixty-six percent (an average across ages) of the cats in the study were securely attached to their owner and 34% were insecurely attached. Of the insecurely attached cats, the majority (84%) were ambivalently attached, meaning that the cat often sought excessive proximity to the owner. Only 16% of the insecurely attached cats (less than 5% overall) demonstrated avoidance behaviour with their owner.

The trend in attachment did not change - with age or training of the cats. Kittens, trained kittens (6 weeks of training – the “follow up” kittens), and adult cats, showed very similar attachment profiles. This suggests that the attachment profile, once made by the cat, is persistence and resistant to natural change or training.

**LIMITATIONS OF THE DATA SET**

Cat behaviour was measured by the Secure Base Test, a variation of the very reliable “strange Situation” test commonly used for toddlers and dogs. This is a relatively novel adaptation, and although the principles of testing should transfer reliability, this cannot be guaranteed until the SBT has been definitely shown to be reliable.

This study had a total of 117 cats tested across the categories, including a total of 79 kittens and 39 adult cats. This is a significant sample size but not extensive, and may limit the reliability of the data.

Importantly, the breeds of cats were not described, and unless there was a wide variety of breeds evenly represented in the study, the findings are very likely to have limited application to a broader cat population.

Data Set 3

The data table focuses on applying the principles of human attachment testing to dogs using the principles of the “Strange Situation” test for infants. Frequency distribution of dog attachment classifications are then compared to normal US infant samples.

| **Classification group** | **Dog “ 3-way” classification (A, B, and C)a*N*(%)** | **Infant “3-way” classification (A, B, and C) (Ainsworth et al.,**[**1978**](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6532729/#CIT0004)**)b*N*(%)** |
| --- | --- | --- |
| Secure (B) | 34 (66%) | *66%* |
| Avoidant (A) | 7 (14%) | *22%* |
| Ambivalent (C) | 10 (20%) | *13%* |

a *N* = 51 dog–caregiver dyads; unclassified cases excluded.

b *N* = 2,104 infant–mother dyads; based on normative samples from 15 studies.

**IDENTIFICATION OF TRENDS**

Dogs generally securely attach to their owner. Sixty-six percent of dogs securely attached and 34% insecurely attached. Of the insecurely attached dogs, nearly 60% were ambivalent in their attachment, meaning these dogs required excessive proximity to, and demonstrable attention from their owner.

The proportion of attachment types in the table are very similar to those measured in one year old toddlers in the United States. The proportions of securely attached individuals (66%) versus insecurely attached (34%) is exactly the same, although there is some variation within the subcategories of the insecurely attached individuals. There may be many ways to interpret this data, but one would be the degree of secure attachment may be related to the degree of cognitive development in the individuals.

**LIMITATIONS OF THE DATA SET**

Although the test used to evaluate the dog behaviour was an adaptation of the “strange Situation” test used for humans, it has been adequately tested for used with dogs, so the testing procedure itself does not limit the findings of the study.

The sample size of this study was 51 dogs. This is a relatively small sample size and it does limit the reliability of the scores.

In addition, the breeds of the dogs were not specified, and if there was an over-representation of specific breeds, the scores have very limited application to a broader, more general dog population.

**QUALITY OF THE EVIDENCE**

All three studies were published in international journals utilizing a peer-review process. Peer-review generally provides a well-accepted process for ensuring the research data is of a high reliability and validity, and thus it is likely that the data within these studies is both reliable and valid.

The research methodologies used in all three studies are based on the very established “strange Situation” testing procedures first developed by Mary Ainsworth in the 1970’s. As such, the methodology is very well accepted in scientific literature. The adaptations for use in dog studies is far more recent but nevertheless well accepted as being robust and reliable. The adaptation used in Study 2, the Secure Base Test does not yet have proven reliability, but given the same testing principles are applied it can be considered reliable until future evidence is acquired.

The validity of all three studies is significantly affect by the inability to apply the findings to the broader Cat and dog populations. The lack of detail around the breeds of cats and dogs within each of the studies does mean the findings may not accurately represent cats and dogs in general, or indeed a specific breed of cat or dog.

Therefore, while it would appear that the methodology used, and data generated is reliable. However, any general conclusions from this data which relate to the general cat and dog populations, or specific breeds of cats and dog is not likely to be valid.

**IMPROVEMENTS and EXTENSIONS**

An improvement common to all the studies would be to increase sample size. This could obviously be difficult logistically when working with family pets, but it would offer a significant improvement in terms of reliability of the data. The most significant improvement would however be to have an even representation of breeds of cats and dogs in each of the studies. This would make the findings broadly applicable and significantly increase the validity of the studies. Alternatively, the studies could focus on one particular breed, and the findings would have very valid applications to a specific type of pet.

This investigation could be extended by measuring the attachment, and owner pet relationship for pets other than dogs and cats. Alternatively, there are ways of measuring the “better pet” which have not been included in this investigation. An obvious example of this is the common need to walk dogs may provide significant health outcomes for dog owners compared to cat owners.

**CONCLUSION**

Despite some significant differences, dogs do not appear to be better pets than cats in terms of emotional attachment of the pet to the owner, and the owner’s perception of the relationship to the pet. The studies within this investigation showed that dogs are considered by owners to develop a closer emotional connection with their owner, but conversely have fewer interactions with them. This suggests that cat owners perceive the relationships with their cat quite differently to the way dog owners perceive the relationship with their dog. However, secure attachment to the owner was practically identical for cats and dogs, with some slight variation only in the way cats and dogs insecurely attached to their owner. This suggests that cat and dog owners are likely to experience the same benefits associated with pet ownership.

The degree of secure attachment for cats and dogs was also remarkably identical to that of one year old infants in the United States. Clearly this connectiveness has a value worth investigating further and is possibly related to the degree of cognitive development. If this assertion was true, it would suggest cats and dogs are equally intelligent.

**EXTRAPLOLATION TO THE AIM**

The findings of this investigation do not support the claim that “dogs are better than cats”. It was found that dogs and cats attach to their owner to the same degree, although dog and cat owners have significantly different perceptions of the relationship with their pet. Therefore, in this particular context, dogs are equal to cats. However, as this investigation looked at dogs and cats only in terms being a pet, and specifically in terms of their connection to their owner as a pet, it would have only a limited application to the much broader “dogs are better than cats”. In order to more broadly address the claim, a much larger number of criteria comparing dogs and cats within pet ownership, and importantly outside the sphere of pet ownership, would need to be measured.

**REFERENCES**

Ainsworth M. D., Bell S. M., & Stayton D. J. (1971). Individual differences in strange-situation behavior of one-year-olds In Schaffer H. R. (Ed.), *The origins of human social relations*. Oxford: Academic Press.

Rutledge K., Et Al., (revised 2022). Domestication, *National Geographic*, accessed May 5th, 2023; <https://education.nationalgeographic.org/resource/domestication/>

Amiot C., Bastian B., Martens P. (2016). People and companion animals: It takes two to tango. *BioScience.*2016; 66: 552–560.

González M.T., Landsero R. (2011). Differences in perceived stress, mental and physical health, based on the type of human-dog relationship. *Rev. Colomb. Psicol.*2011; 20: 75-86.

González-Ramírez, M.T., Landero-Hernández, R. Pet–Human Relationships: Dogs versus Cats. *Animals* **2021**, 11, 2745.

Guastello A.D., Guastello D.D., Guastello S.J. (2017). Personality Differences between Dog People and Cat People. *Hum. Anim. Interact. Bull.*2017; 5: 41–57.]

Payne E., Bennett P. C., & McGreevy P. D. (2015). Current perspective on attachment and bonding in the dog-human dyad. Psychology Research and Behavior Management. 2015; 8, 71–79.

Solomon J., Beetz A., Schöberl I., Gee N., Kotrschal K. (2019) Attachment security in companion dogs: adaptation of Ainsworth's strange situation and classification procedures to dogs and their human caregivers. *Attachment and Human Development*. Aug;21(4):389-417

Utz R.L. (2014); Walking the dog: The effect of pet ownership on human health and health behaviors. *Soc. Indic. Res.*2014; 116: 327–339.

Vitale K.R., Behnke A.C., Udell M.A.R. (2019). Attachment bonds between domestic cats and humans. *Current Biology*. Sep 23;29(18).