

Canine Compensation: Size Does Matter

Cecelia Erwin, Orian Evans

Reed College Bio342

Why do smaller dogs exhibit more undesirable behaviors than larger dogs?

Canis familiaris, the domestic dog, varies immensely in morphology and behavior.

Previous research has found that owner's report smaller dogs tend to show more undesirable behaviors than larger dogs (Duffy et al, 2008).

2 Possibilities:

Increased undesirable behavior is the result of some morphological difference between small and large dogs.

- or -

Smaller dogs may receive less training due to increased owner tolerance for undesirable behaviors.



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Experimental Design and Results:

Undesirable behavior may be less tolerated in larger dogs than in smaller dogs.

Experimental Design

Hypothesis: Undesirable behaviors are seen more in smaller dogs because smaller dogs receive less training than larger dogs.

Using focal sampling, dogs were observed at Woodstock Park for 10 minute intervals.

Afterwards, we took pictures for measurements and gave a brief owner survey to determine training history and weight.

What is an undesirable behavior?

Undesirable behaviors in our ethogram were based off the Canine Behavioral and Research Questionnaire (C-BARQ). The categories included:

- Aggression
- Fear and Anxiety
- Training/Obedience



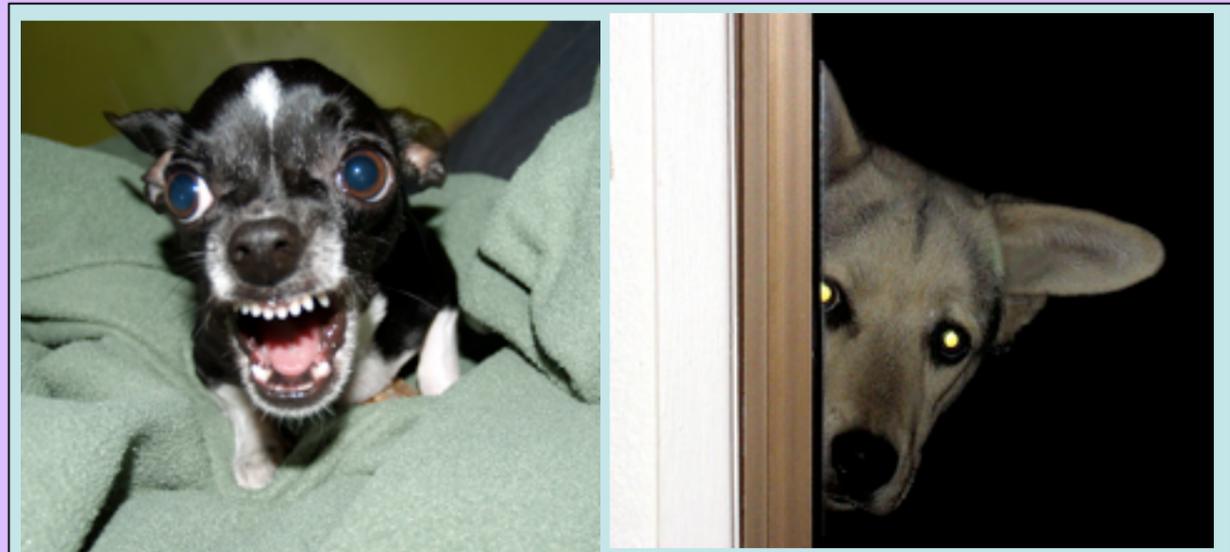
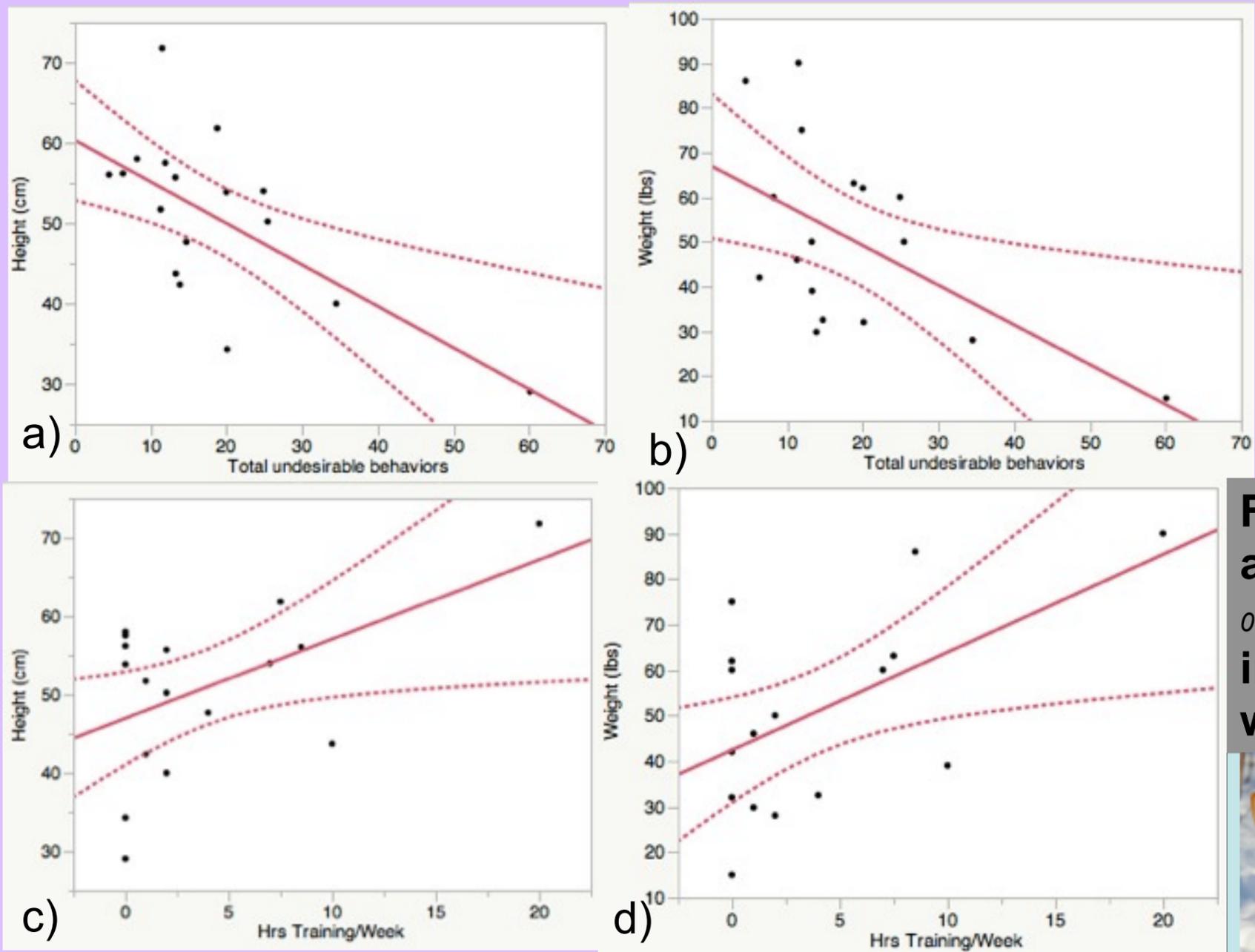
Measurements of height were obtained using ImageJ. The ruler served to set the scale and measurements were taken from the bottom of the front foot to the top of the shoulder.



Experimental Design and Results:

Undesirable behavior may be less tolerated in larger dogs than in smaller dogs.

Results:



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Figure 1. Undesirable behaviors increase as both a) height ($P = 0.0048$) and b) weight ($P = 0.0195$) decrease. Hours of training per week increases as both c) height ($P = 0.0334$) and d) weight ($P = 0.0219$) increase.



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Experimental Design and Results:

Undesirable behavior may be less tolerated in larger dogs than in smaller dogs.

Conclusion:

Smaller dogs exhibited more undesirable behaviors and they received less training than larger dogs.

Our results imply that the increase in undesirable behaviors in small dogs is not due to morphological differences between small and large dogs, but differences in training of small and large dogs.

These findings reinforce the value of training in dogs of all sizes.

Further Research:

A future step would be examining how training at different stages of canine development affects behavior later in life. e.g. Whether training as a puppy has more of an affect than training as an adult.

References:

1. Duffy DL, Hsu Y, Serpell JA (2008) Breed differences in canine aggression. *Appl Anim Behav Sci* 114: 441–460. doi: 10.1016/j.applanim.2008.04.006
2. Wikimedia Commons Photos.

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