

# Do the personalities of cohabitating dogs influence their welfare?

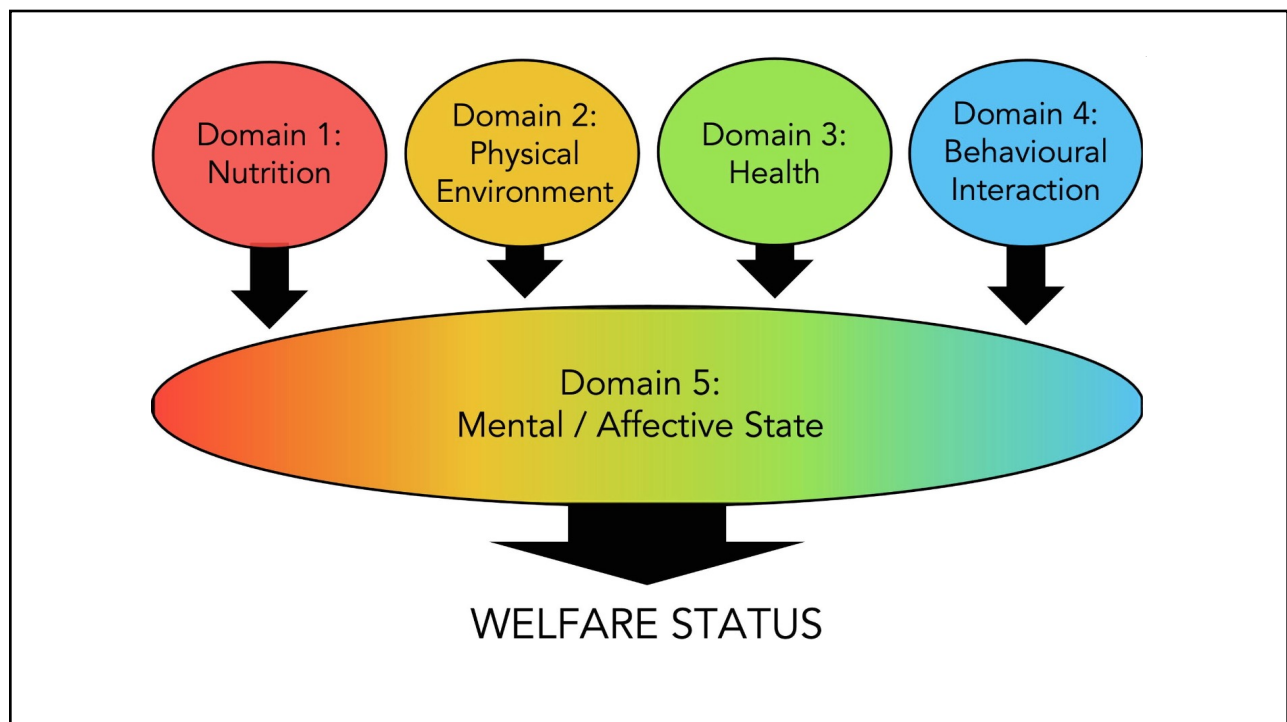
Jordan G. Smith & Sarah Krichbaum



Canine  
Performance  
Sciences



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## Expanding the Behavior Domain

1. Interaction with the environment
2. Interaction with humans
3. Interaction with other animals

3



Human-Dog Bond = Welfare

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## Questions

Does dog  
personality predict  
the human-dog  
bond?

Do the personalities  
of co-habiting  
dogs predict the  
dog-dog bond?

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## Methods

- Pet owners with 2 dogs that had lived together for at least 1 year
- Participated in online survey
  - Dog personality questionnaires (n = 210 dogs)
    - Canine Behavioral Assessment and Research Questionnaire (C-BARQ; Serpell & Hsu, 2001)
    - Monash Canine Personality Questionnaire – Revised (MCPQ-R; Ley et al., 2009)
    - Dog Impulsivity Assessment Scale (DIAS; Wright et al., 2011)
  - Dog-owner relationship questionnaire (n = 210 dogs)
    - Monash Dog Owner Relationship Scale (MDORS; Dwyer et al., 2006)
  - Dog-dog relationship questionnaire (n = 100 pairs)

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## Demographics

Individual Dogs (n = 210)	
Age (in years)	6.55
Years with Owner	5.92
Sex	104 Male 106 Female
Neuter Status	176 Neutered 34 Intact

Dog Pairs (n = 100)	
Age Gap (in years)	4.17
Years Lived Together	3.92
Sex	25 Male Pairs 25 Female Pairs 50 Mixed Pairs
Neuter Status	74 Neutered Pairs 6 Intact Pairs 20 Mixed Pairs

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# Personality Questionnaires

## 1. C-BARQ

- Measure of dog behavior and temperament
- Divides into 14 factors

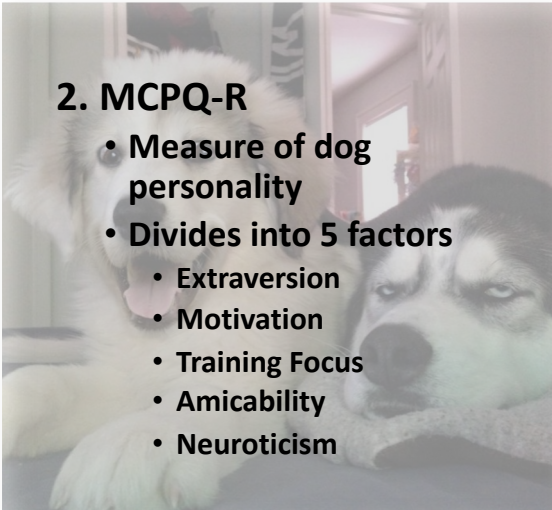
Trainability	Dog-Directed Aggression	Dog-Directed Fear	Separation-Related Behavior
Chasing	Stranger-Directed Aggression	Stranger-Directed Fear	Attachment or Attention-Seeking
Energy	Owner-Directed Aggression	Nonsocial Fear	Touch Sensitivity
Excitability	Rival		

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# Personality Questionnaires

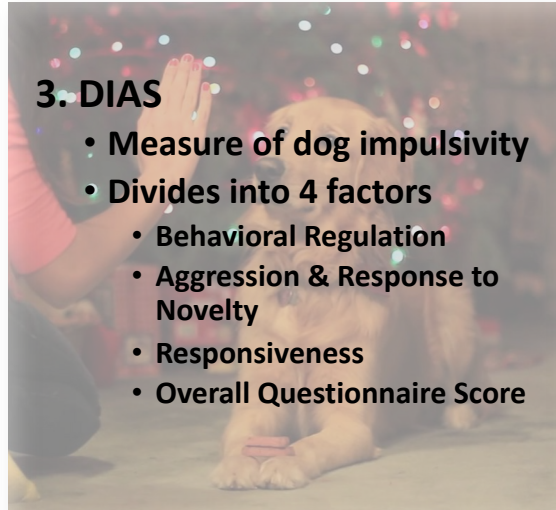
## 2. MCPQ-R

- Measure of dog personality
- Divides into 5 factors
  - Extraversion
  - Motivation
  - Training Focus
  - Amicability
  - Neuroticism



## 3. DIAS

- Measure of dog impulsivity
- Divides into 4 factors
  - Behavioral Regulation
  - Aggression & Response to Novelty
  - Responsiveness
  - Overall Questionnaire Score

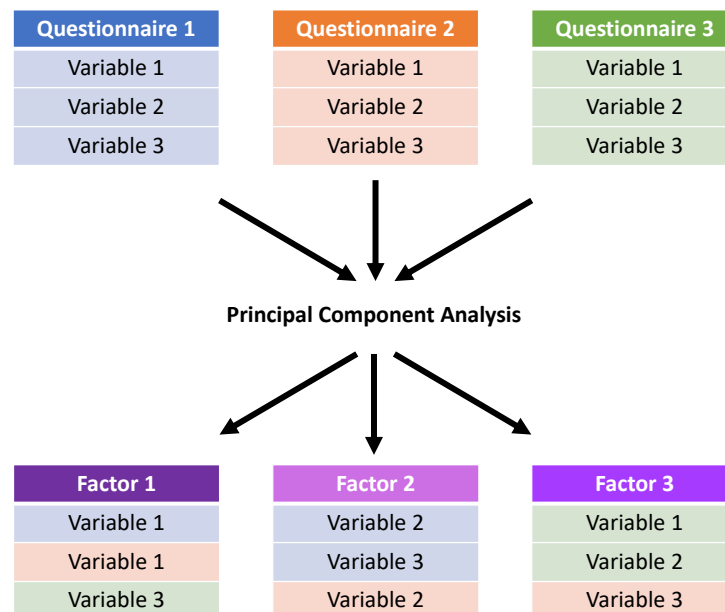


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# Personality Questionnaire Results

Principal Component Analysis → explains variation across measures and reduces the number of variables

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# Personality Questionnaire Results

Principal Component Analysis → explains variation across measures and reduces the number of variables

C-BARQ (14) + MCPQ-R (5) + DIAS (4)



## 5 Total Factors

- 1) Anxious Arousal
- 2) Excitability
- 3) Trainability
- 4) Aggression
- 5) Fear

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## Anxious Arousal



Touch Sensitivity (C-BARQ)	↑
Owner Aggression (C-BARQ)	↑
Stranger Aggression (C-BARQ)	↑
Excitability (C-BARQ)	↑
Nonsocial Fear (C-BARQ)	↑
Rival (C-BARQ)	↑
Separation (C-BARQ)	↑
Dog Fear (C-BARQ)	↑
Dog Aggression (C-BARQ)	↑
Stranger Fear (C-BARQ)	↑
Attachment (C-BARQ)	↑
Overall Questionnaire Score (DIAS)	↑
Aggression (DIAS)	↑
Behavioral Regulation (DIAS)	↑
Neuroticism (MCPQ-R)	↑
Energy (C-BARQ)	↑
Amicability (MCPQ-R)	↓

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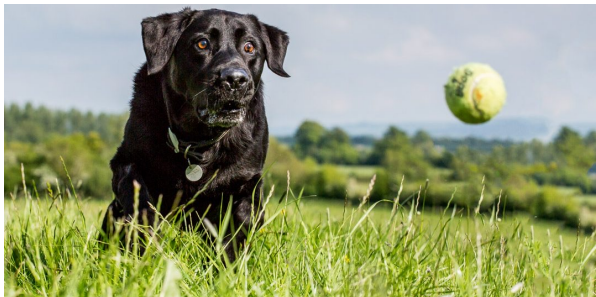
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## Excitability



Responsiveness (DIAS)	↑
Energy (C-BARQ)	↑
Extraversion (MCPQ-R)	↑
Training Focus (MCPQ-R)	↑
Trainability (C-BARQ)	↑
Aggression (DIAS)	↓
Stranger Fear (C-BARQ)	↓
Nonsocial Fear (C-BARQ)	↓
Excitability (C-BARQ)	↑
Neuroticism (MCPQ-R)	↓
Overall Questionnaire Score (DIAS)	↑

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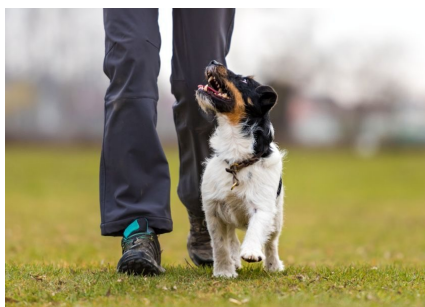
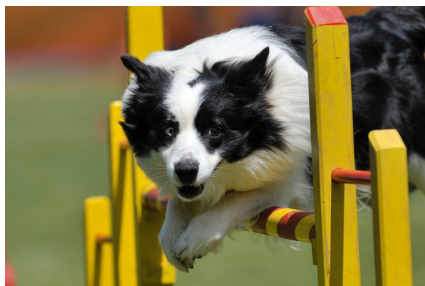


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**Trainability** →

Behavioral Regulation (DIAS)	↓
Overall Questionnaire Score (DIAS)	↓
Trainability (C-BARQ)	↑
Training Focus (MCPQ-R)	↑
Owner Aggression (C-BARQ)	↑
Amicability (MCPQ-R)	↑
Extraversion (MCPQ-R)	↓

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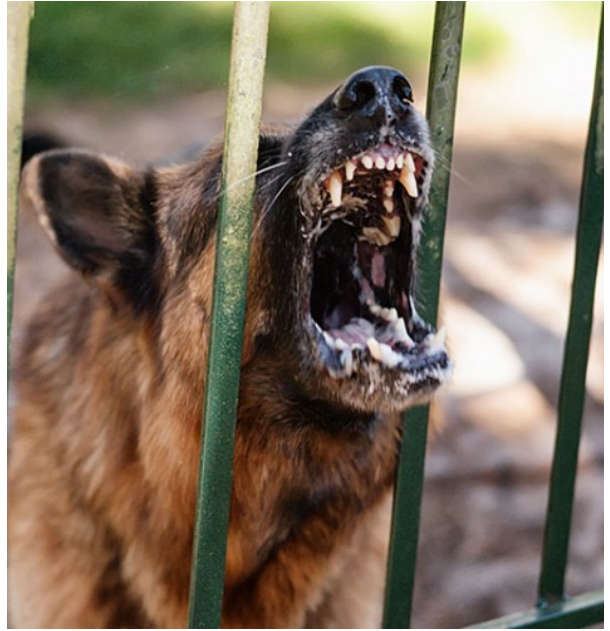


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**Aggression** →

Amicability (MCPQ-R)	↓
Aggression (DIAS)	↑
Trainability (C-BARQ)	↑
Training Focus (MCPQ-R)	↑
Stranger Fear (C-BARQ)	↑
Separation (C-BARQ)	↓
Stranger Aggression (C-BARQ)	↑

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**Fear**



Neuroticism (MCPQ-R)	↑
Dog Aggression (C-BARQ)	↓
Nonsocial Fear (C-BARQ)	↑
Stranger Aggression (C-BARQ)	↓
Attachment (C-BARQ)	↑
Rival (C-BARQ)	↓

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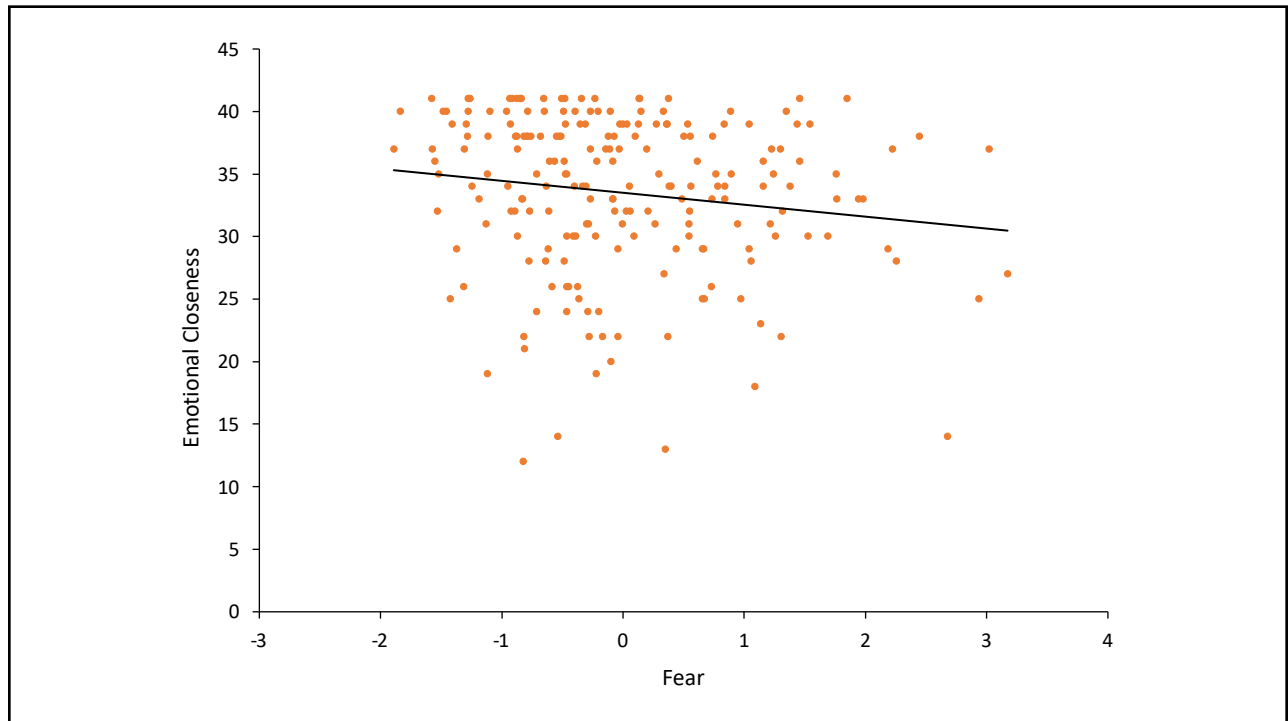
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## Dog-Owner Relationship Questionnaire

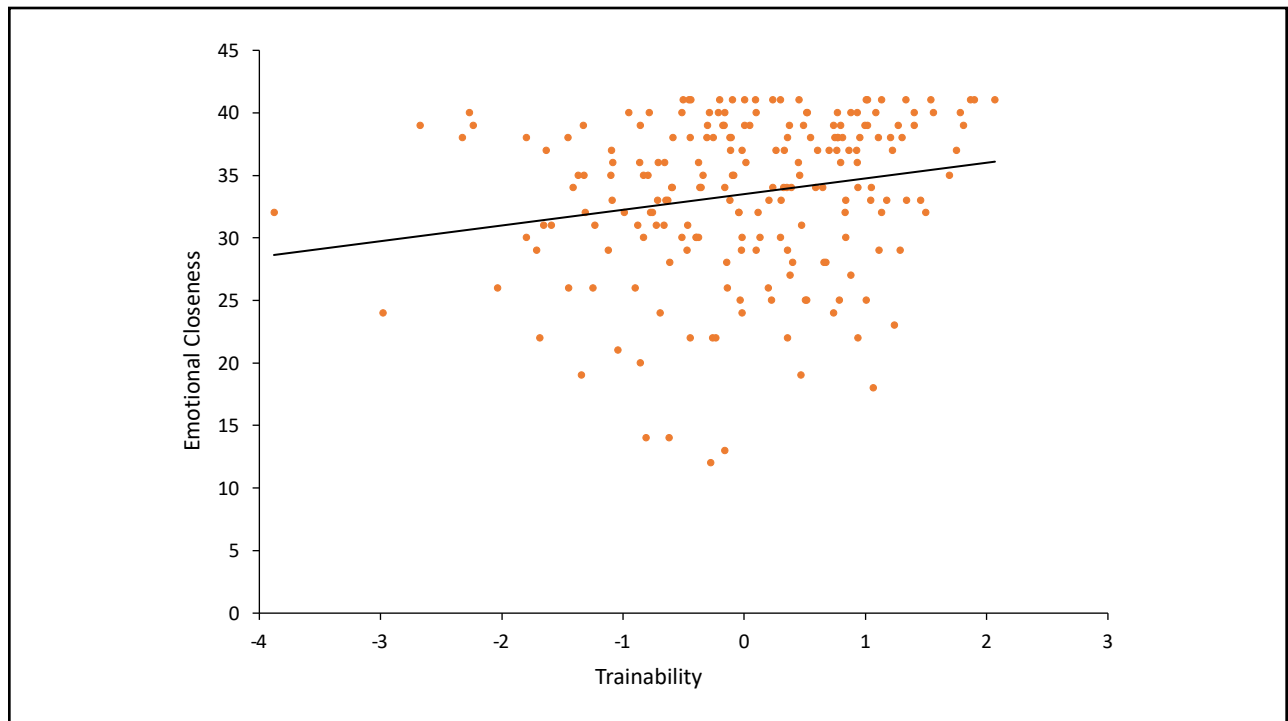
- MDORS
  - Measures relationship between a dog and its owner
  - Divides into 3 factors
    - Dog-Owner Interaction
    - Perceived Emotional Closeness
    - Perceived Costs



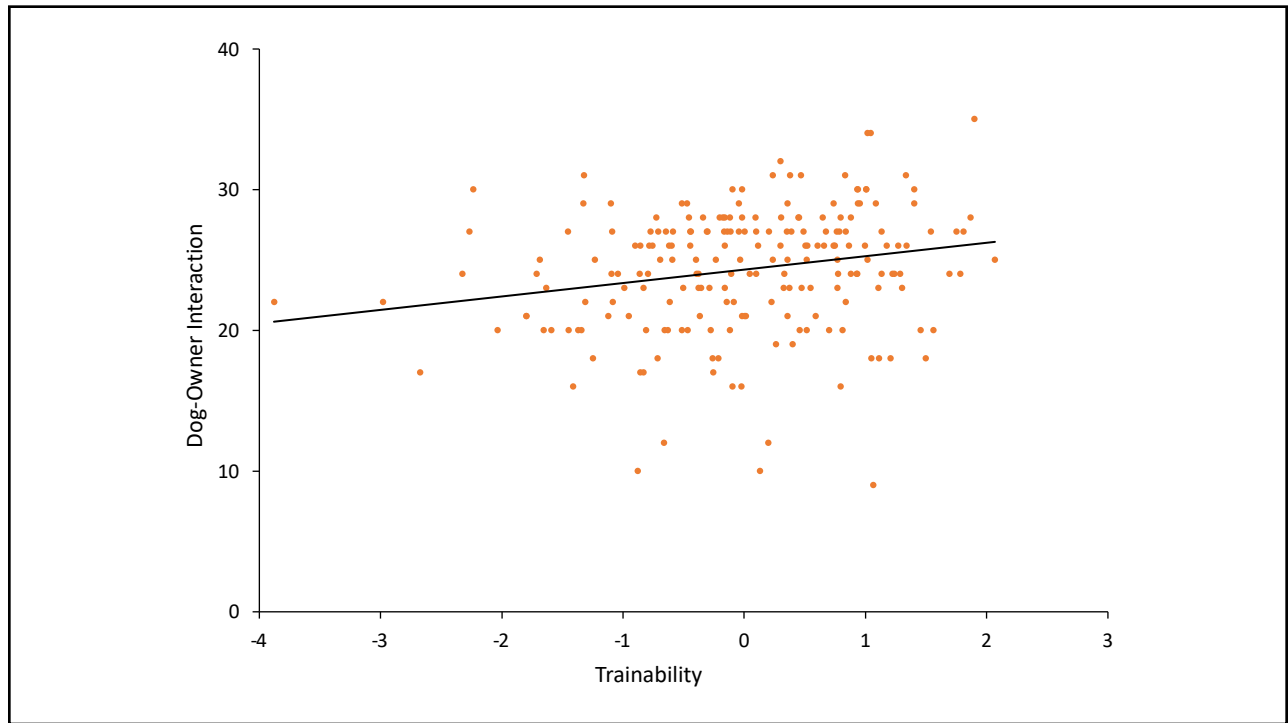
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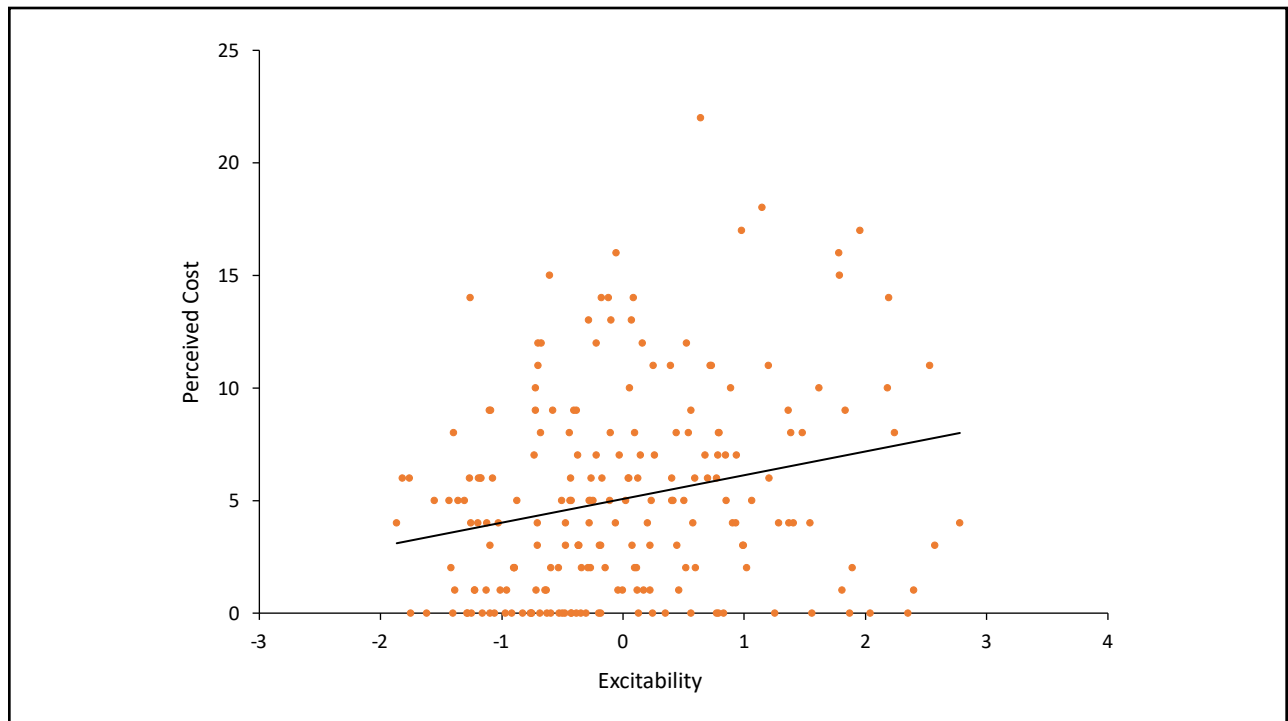
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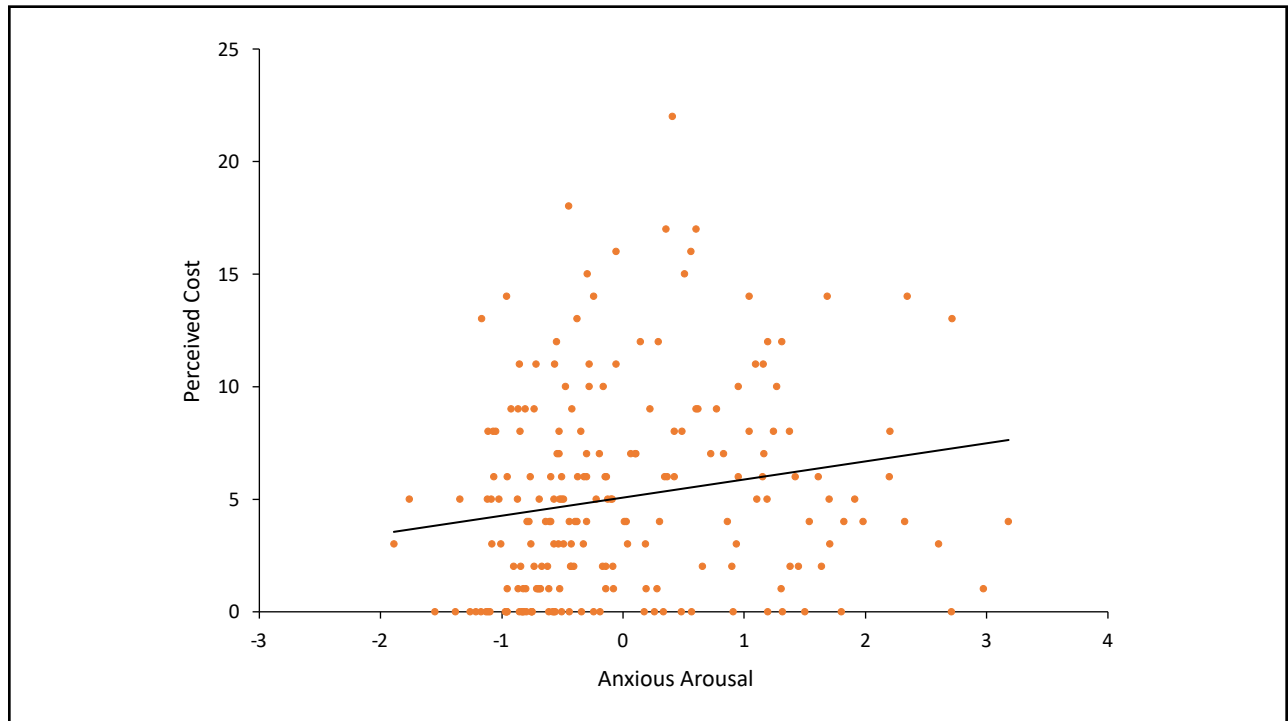
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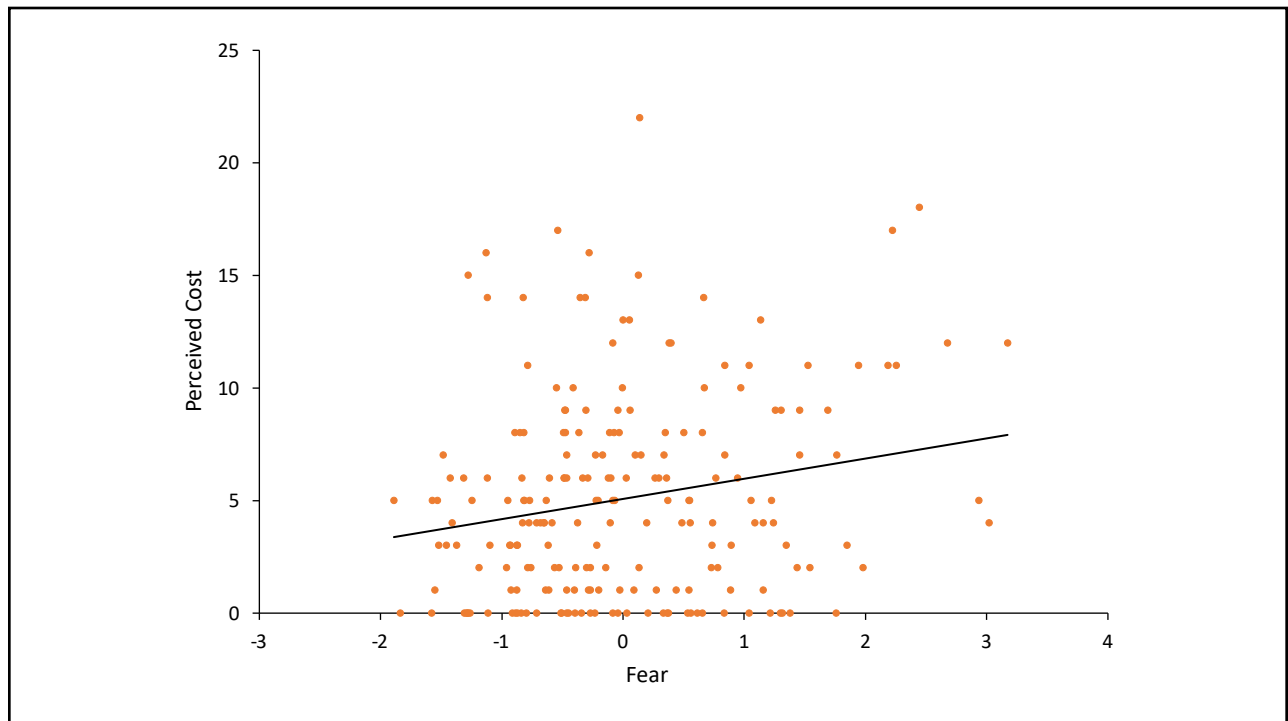
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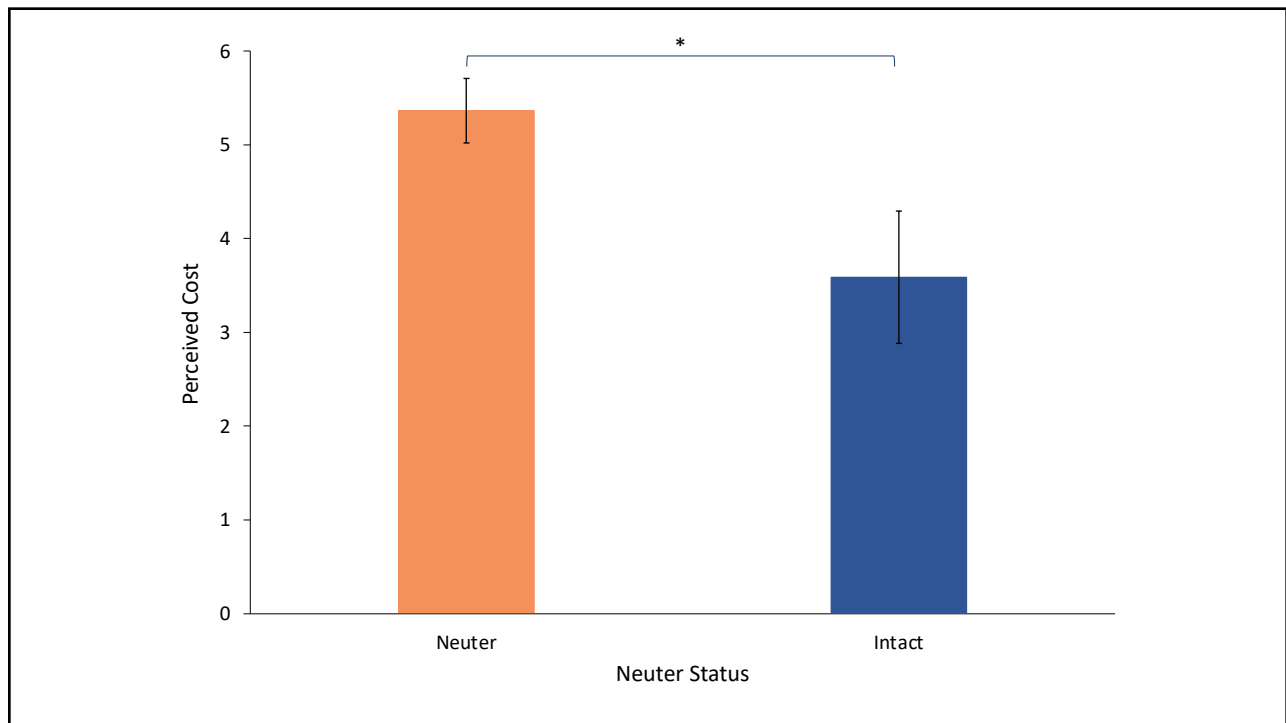
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## Summary of Dog-Owner Results

1. ↓ Fear and ↑ Trainability = ↑ Emotional Closeness
2. ↑ Trainability = ↑ Dog-Owner Interaction
3. ↑ Anxious Arousal, ↑ Excitability, and ↑ Fear = ↑ Perceived Cost
4. Neutered dogs have ↑ Perceived Cost than Intact dogs

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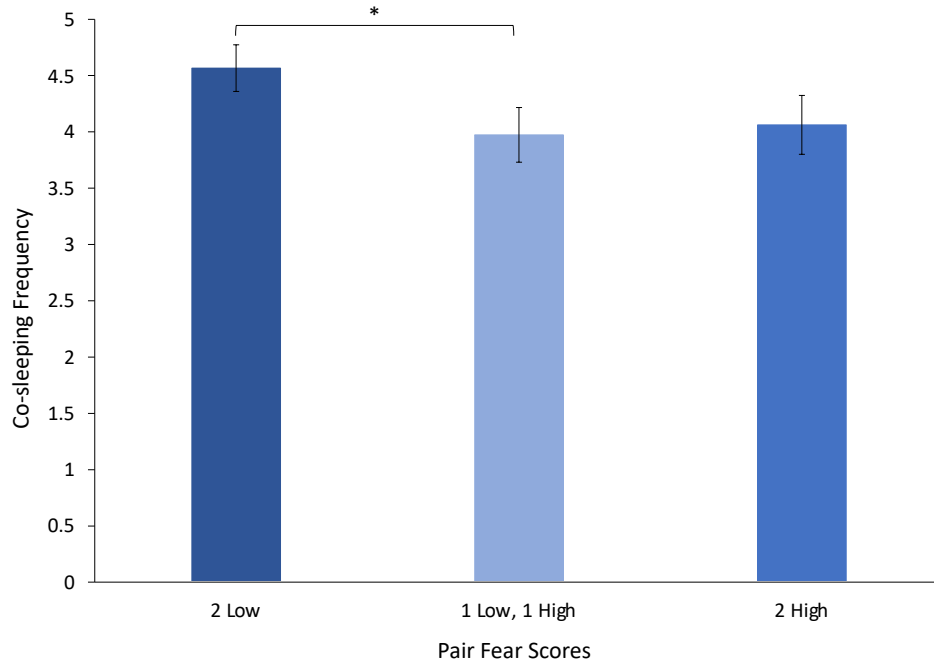
# Dog-Dog Relationship Questionnaire

- Evaluate the relationship quality between cohabitating dogs

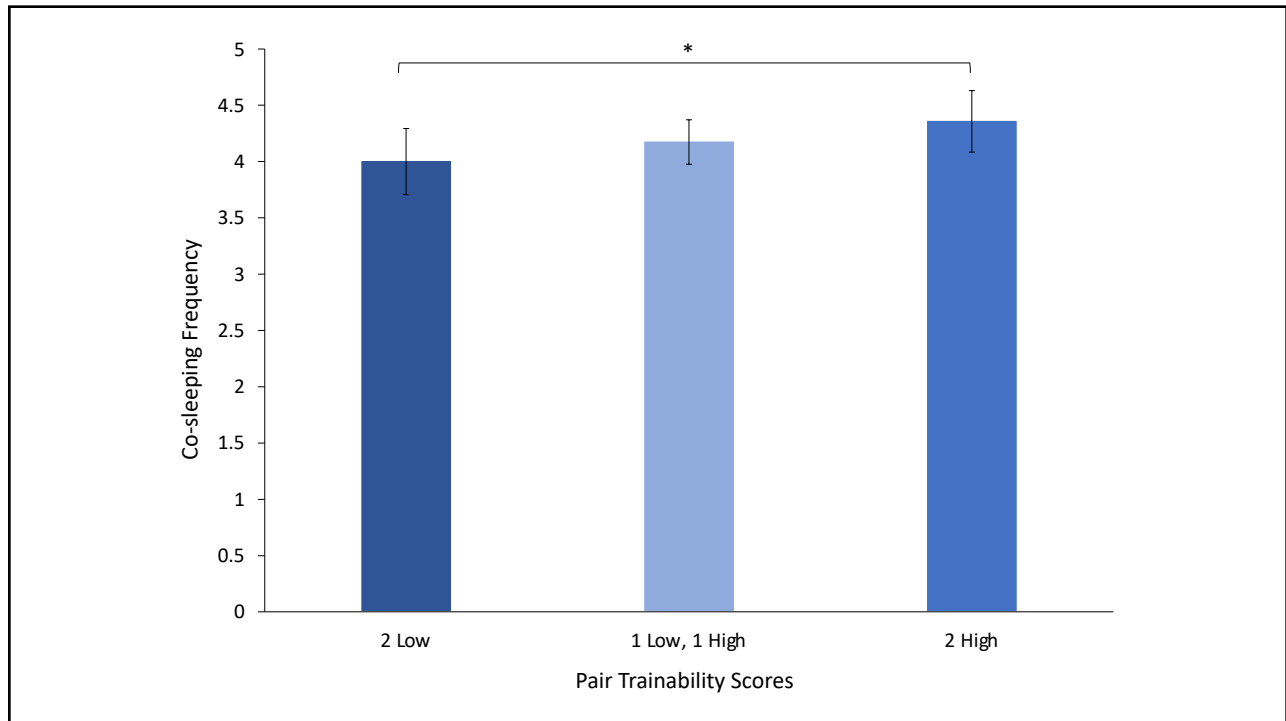
- Frequency of behaviors (1 = never → 5 = once a day)
  - Co-feeding
  - Co-sleeping
  - Play
  - Aggressive Interactions
  - Mounting



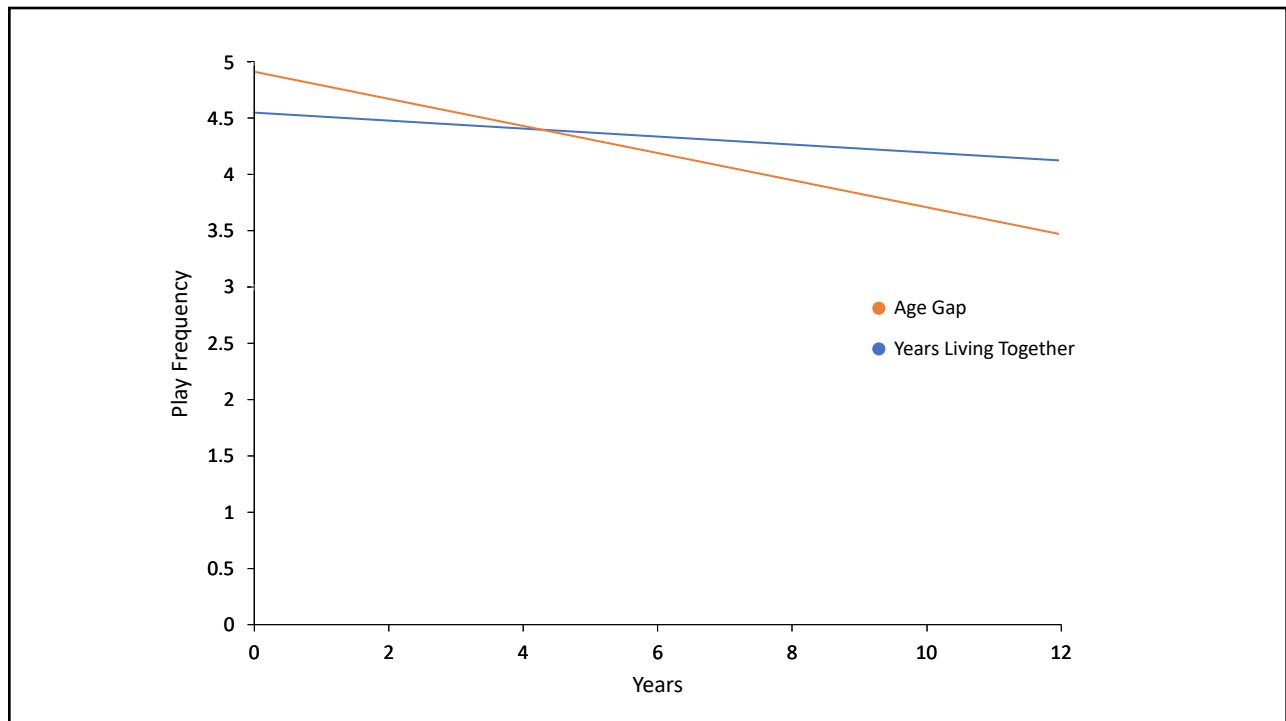
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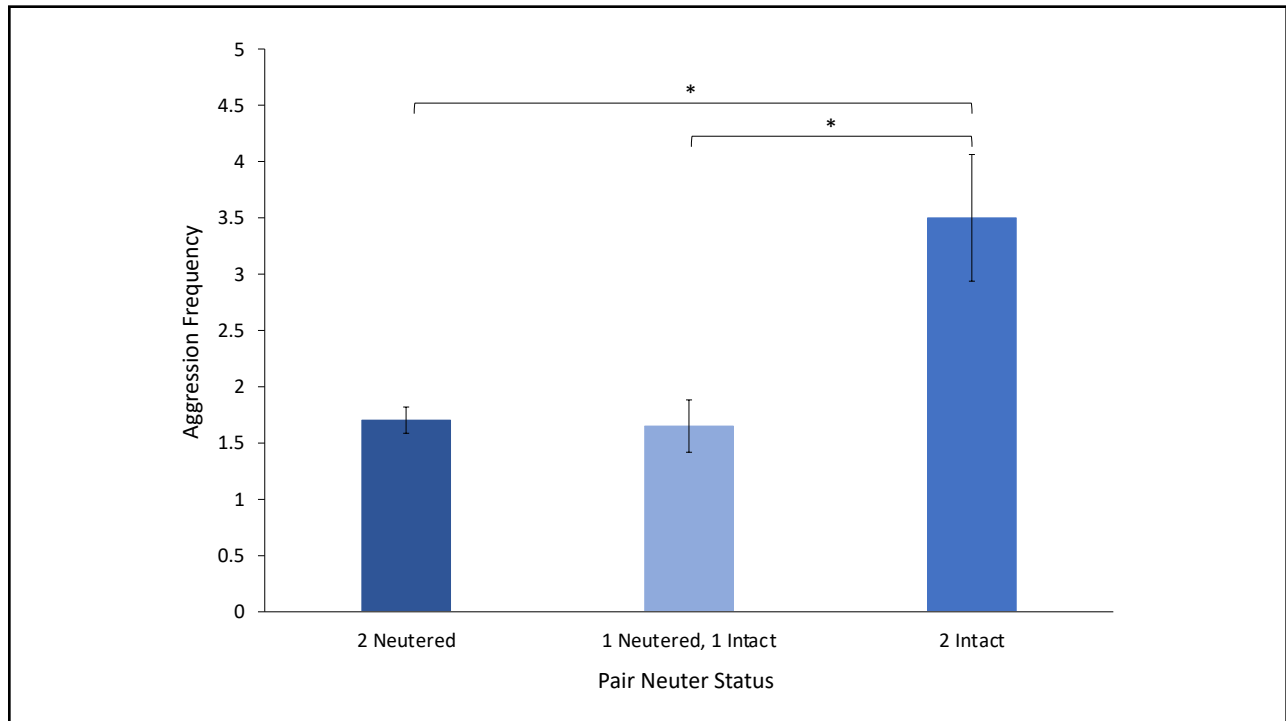
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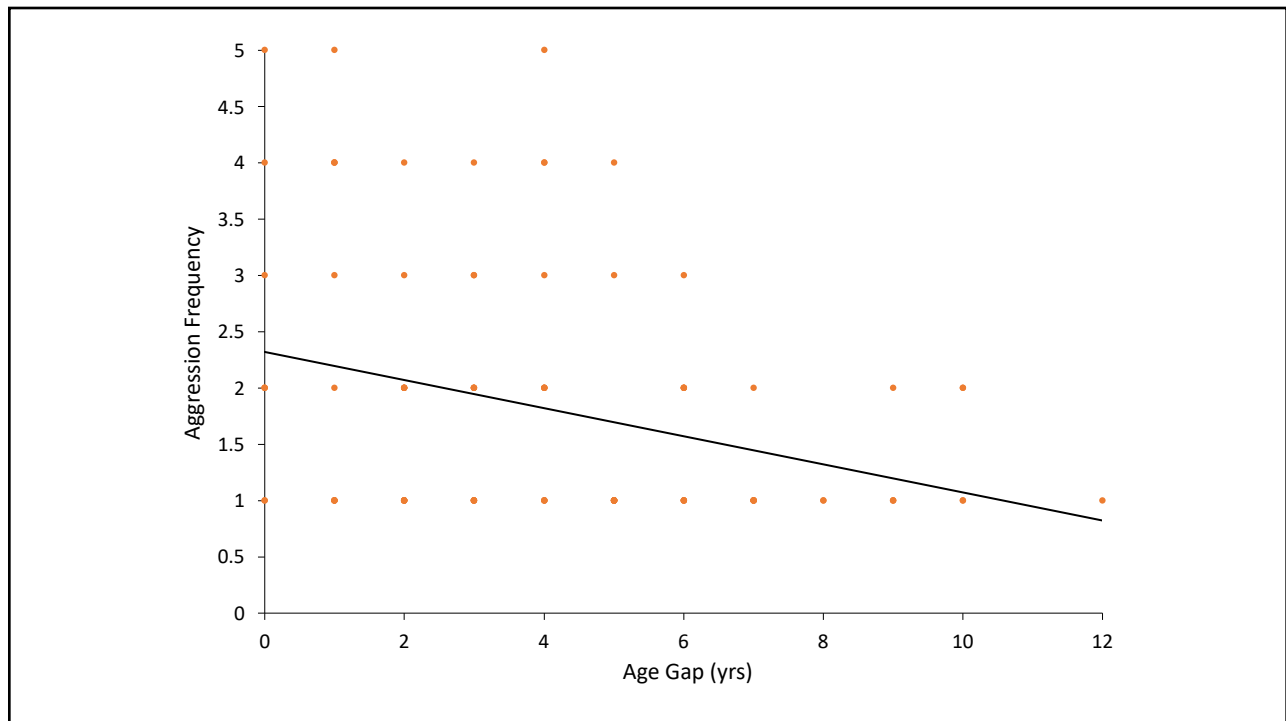
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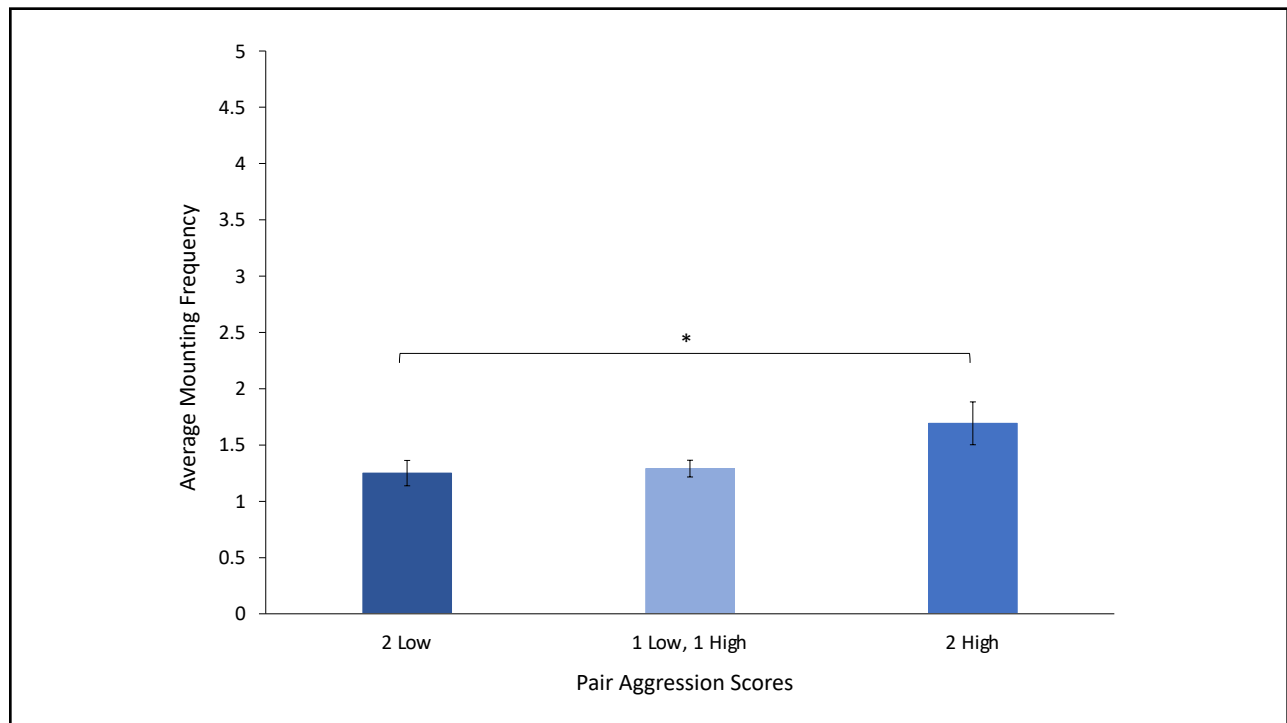
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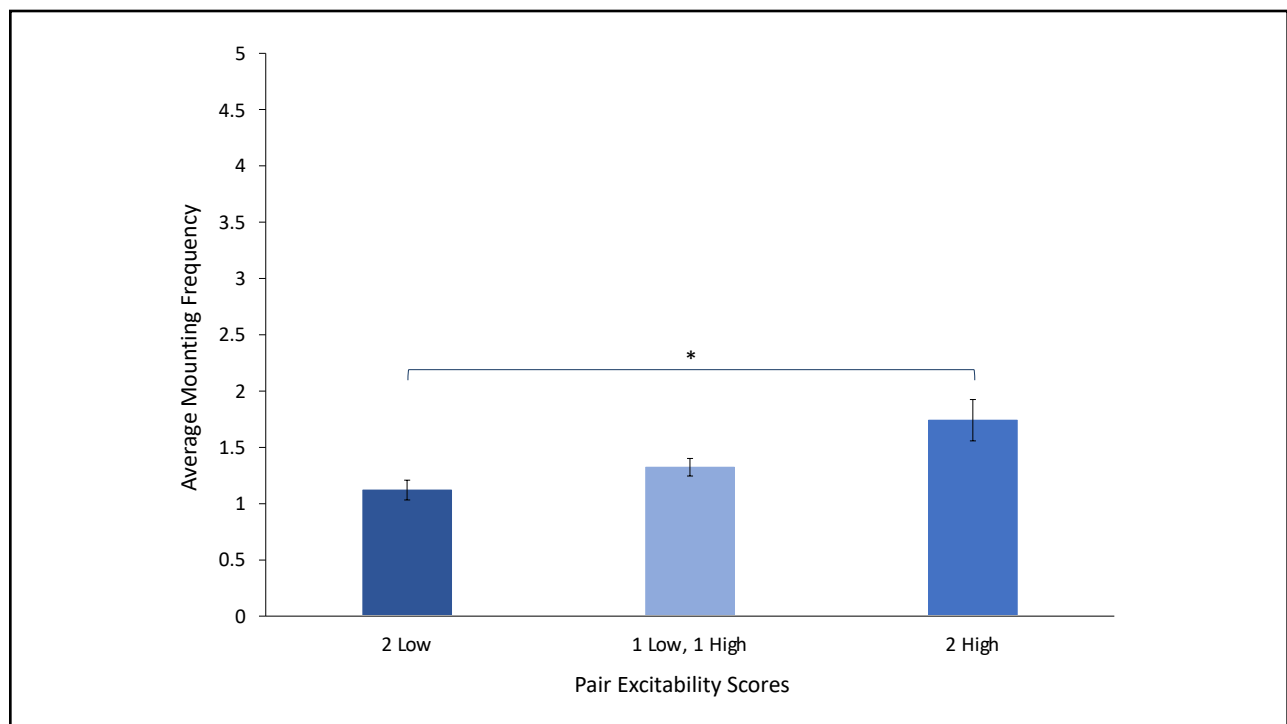
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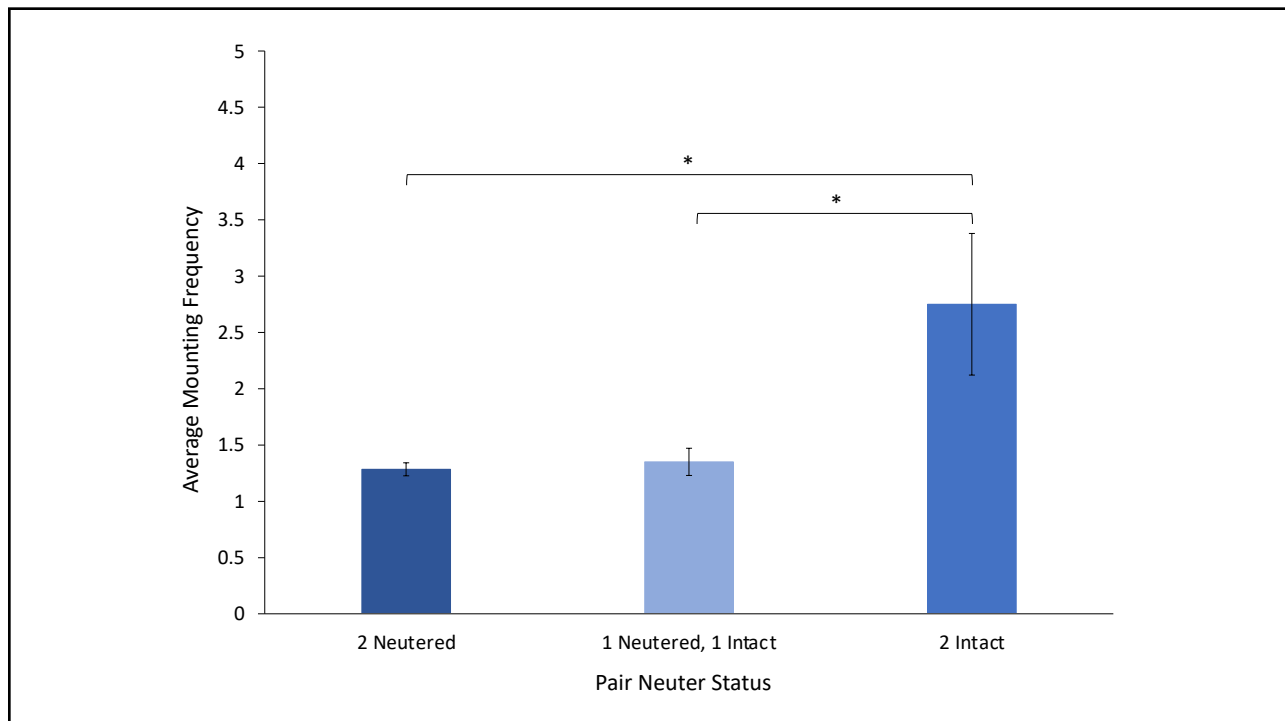
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## Summary of Dog-Dog Results

1. 2 ↓ Fear dogs and 2 ↑ Trainability dogs = ↑ Co-sleeping
2. ↓ Age Gap and ↓ Years Living Together = ↑ Play
3. ↓ Age Gap = ↑ Aggressive Interactions
4. 2 ↑ Aggression and 2 ↑ Excitability dogs = ↑ Mounting
5. 2 Intact dogs = ↑ Aggressive Interactions & ↑ Mounting

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## Implications

1. Consider a dog's personality before purchase or adoption
2. Consider your current dog's personality before purchase or adoption of a new dog
3. When a dog-human or dog-dog issue arises think about which factors may be creating that issue before deciding how to fix them

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## Acknowledgments

**Jordan Smith**  
jag0125@auburn.edu  
**Sarah Krichbaum**  
szk0138@auburn.edu



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