

## ABSTRACT

Loneliness, a perceived lack of or weak social connection, is a major health concern that can lead to cognitive, emotional, and/or physical health costs. To avoid the negative aspects of loneliness a sociality motivation, the desire for human contact and affiliation, may induce anthropomorphism of non-human agents, including companion animals. As such, we demonstrate that, in the US, humans that experience a negative life-event (e.g. the death of a loved one or divorce) increase expenditures on companion animals and the effect is magnified by living alone. Additionally, we show, experimentally, that the increased expenditure on a companion animal is limited when there is an obvious social connection and, thus, the behavior is compensating for individual loneliness. Further, a third study demonstrates that the effects are mediated through anthropomorphism of the animal and the type of animal moderates this effect. Finally, we show that advertising encouraging a loneliness self-repair increases interest in products for companion animals. Illustrating that loneliness induces spending on consumer products but may have implications regarding human social connection.

## INTRODUCTION

- Loneliness, a perceived lack of or weak social connections, is a major health concern that can lead to cognitive, emotional, and/or physical health costs
- A sociality motivation, the desire for human contact and affiliation, can lead to anthropomorphism of non-human agents, including companion animals
- Anthropomorphism of companion animals leads to greater spending on essential services and extraneous goods for those animals
- However, anthropomorphism varies by the type of animal and the availability of human-like traits

## HYPOTHESES

- H1: Loneliness increases willingness to pay for or adoption of companion animals and products
- H2: Increased willingness to pay for companion animal products is driven by anthropomorphism of the animal
- H3: Anthropomorphism of animals is lesser for less human-like animals

## STUDY DESIGN AND RESULTS

### STUDY 1

- Data from 784 households obtained from Nielsen Homescan panel data (2011-2015) was examined for product purchases for companion animals and negative life-events (death or divorce)
- Transition periods covered the year of the negative life-events and post-transition the year afterward
- Household fixed effects were included

### STUDY 2

- 297 Prolific workers first wrote a story about either the last time they felt connected to someone or felt alone (Connection vs. loneliness)
- Participants were then either told that a pet companion could be a form of compensation for loneliness or had no such information and were told about a 12-month rescue dog, Zep (Control vs. explicit)
- The key DV was participants' willingness to adopt Zep

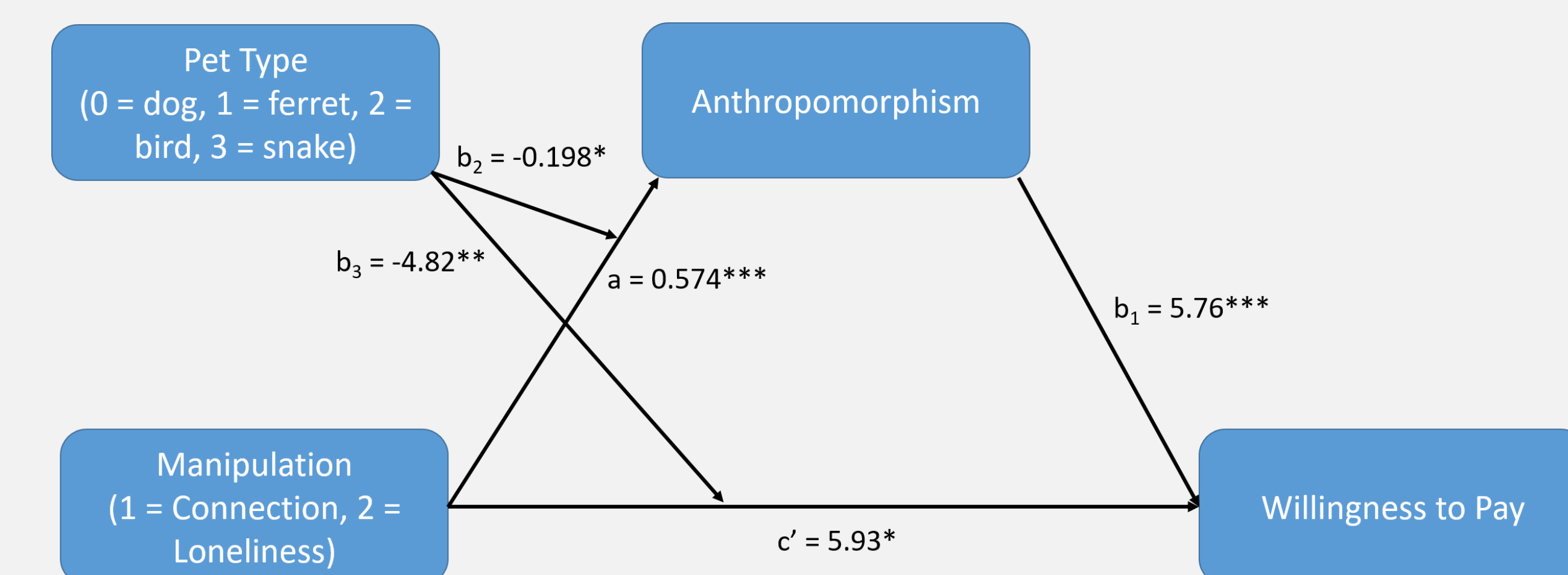
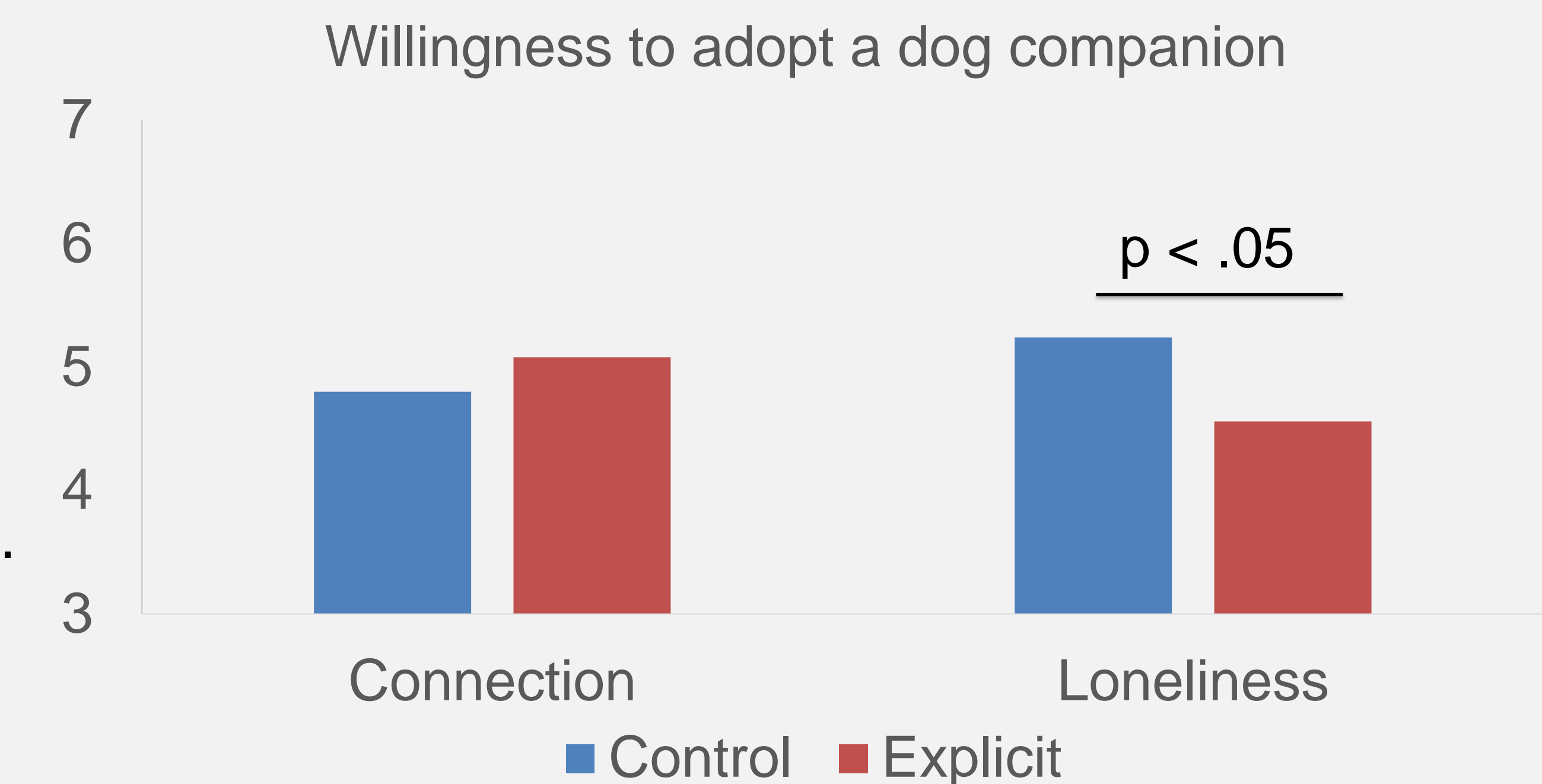
### STUDY 3

- 540 Prolific workers first wrote a story about either the last time they felt connected to someone or felt alone (Connection vs. loneliness)
- Participants were then asked to consider how much they would spend, monthly, on a companion animal (Dog vs. ferret vs. bird vs. snake)
- The key DVs were anthropomorphism and willingness to pay

### STUDY 4

- A Facebook Advertising campaign was run for a real dog products brand, Green Gruff
- Users saw either an advertisement suggesting to connect with their dog to reduce loneliness or no such appeal (Loneliness vs. control)
- Additionally, users the ad included either a person beside the dog or no person (Person vs. none)
- The key DV was click-through on the ad

Predictor	b	SE	p	Fit
Transition	7.91***	1.57	>.001	
Post-transition	8.35***	1.58	>.001	
Total sales	0.031***	0.001	>.001	
			R <sup>2</sup> =	0.784



\* p < .05, \*\* p < .01, \*\*\* p < .001

Predictor	b	SE	p	Fit
(Intercept)	-1.06*	0.492	.031	
Person	-0.010	0.486	.837	
Loneliness	1.69***	0.410	>.001	
Reach	-0.00	0.000	.284	
Age25-34	-0.008	0.412	.986	
Age35-44	-0.489	0.502	.330	
Age45-54	0.344	0.414	.406	
Age55-64	0.434	0.405	.284	
Age65+	0.171	0.449	.704	
Male	1.24***	0.337	>.001	
Person X Loneliness	-0.692	0.565	.220	
			AIC =	157.63