

Developing the Animacy Beliefs Scale: A Counter to Western Environmental Worldview

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INTRODUCTION

We explore new ways of knowing nature, beyond Western philosophies, by studying an alternative philosophy of *animacy*, which is demonstrated with a newly developed measure of animacy beliefs.

Animacy: the belief and acknowledgment of more-than-human beings (e.g., animals, plants, land, water, earth, sky) as volitional and communicating subjects who exist in an equal and reciprocal relationship with humans (Barrett, 2011; Barrett & Wuetherick, 2012).

STUDIES 1 & 2

- Created 48 scale items and validated with experts (S1)
- Confirmed a 4-factor structure with student respondents (animals, plants, land, water) and reduced scale to 28 items (S2)

STUDY 3

- *Sample*: N = 654: 405 non-animists, 249 animists recruited on Prolific to replicate Study 2 and test the validity of the measure.

BROADER IMPACTS

Theoretical: Provides a new theoretical lens and measurement tool to further theory on perceptions of and relationships with nature

Practical: Provides a measurement tool for practitioners to use in fieldwork (e.g., outdoor education)

Do you believe that animals, plants, land, and water are animate beings?

1. The 4-factor model remains the best fitting model and has strong internal reliability

Subscale Reliabilities

- Animal Subscale: $\alpha = .88$
- Plant Subscale: $\alpha = .92$
- Land Subscale: $\alpha = .93$
- Water Subscale: $\alpha = .93$

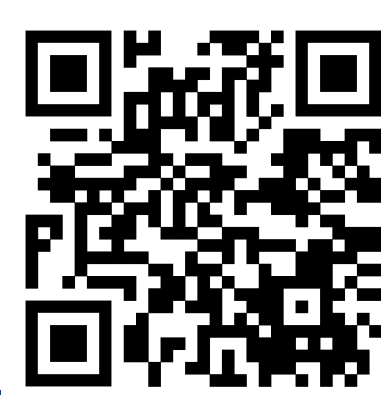
Scale Items

1. *Entities** have a spirit.
2. *Entities* have a sacred energy.
3. Humans can learn a lot from the wisdom of *entities*.
4. *Entities* can consciously give us gifts, just like a friend would.
5. *Entities* should be treated as living beings rather than objects.
6. Each *entity* is an important individual.
7. *Entities* play an intentional role in creating the natural world.

*In each subscale "entity" is replaced with animals, plants, land, or water
-3 "Strongly disagree" to 3 "Strongly agree"

2. The scale measures the same construct for non-animists and animists so it can be used for both groups (i.e., known group validity)

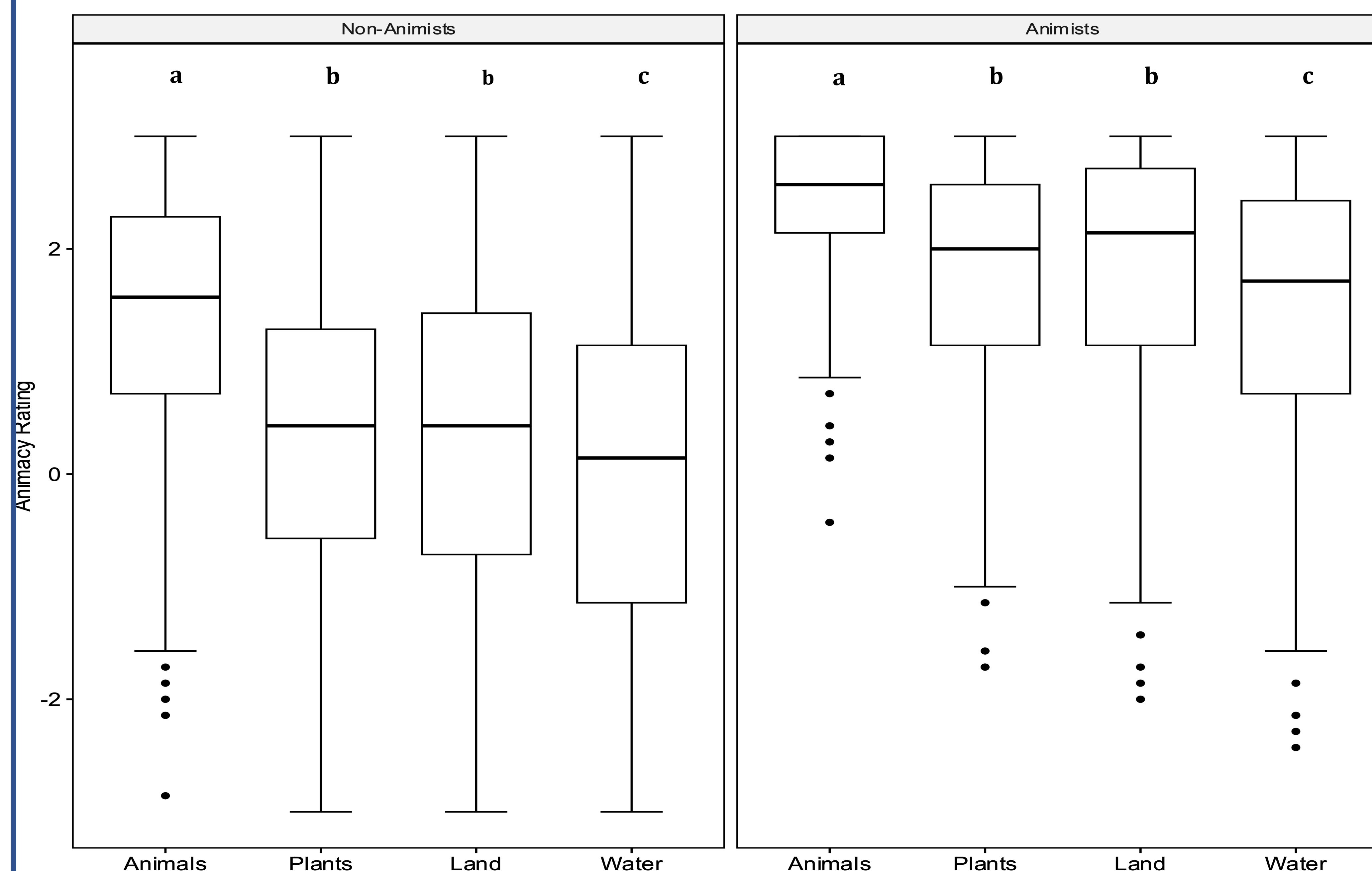
Configural, metric, and scalar invariance was met: factor loadings and beta coefficients were the same for non-animist and animist.



Scan QR code for supplemental materials

3. Differences in endorsement of animist beliefs is consistent with group identities (i.e., known group validity)

Figure 1. Medians and mean differences for each entity by group



Notes. Bars in boxes represent median. Letters indicate mean differences between entities within group at $p < .05$.

☆ Between groups, animists rate all entities as more animate; Within groups, animals are rated as the most animate followed by plants & land then water

3. The scale associated with existing measures in expected ways. (i.e., predictive validity)

- ☆ The more a person who endorse Animacy Beliefs, the more likely they also
- 1) endorse anthropocentric views of nature, $r = .57, .65, .62, \text{ and } .64$.
 - 2) report strong relationships with nature, $r = .73, .75, .72, .70$
 - 3) feel interdependent with nature, $r = .64, .64, .60, .59$
 - 4) Feel grief about the diminished state of nature, $r = .49, .48, .43$

Correlations are for animist beliefs about animals, plants, land and water, respectively)