

Two-alternative Forced-Choice Tasks for Measuring the Moral Perception towards Non-Human Entities

Daniel Martin (University of Granada), Kathryn Francis (Oxford University), Edmond Awad (Exeter University), Ivar R. Hannikainen (University of Granada)

Background

Who do we consider when making everyday moral decisions? Family? Friends? Or strangers? But what if there is more to the story?

One way to conceptualise this is through the idea of the ‘**moral circle**’ (Singer, 2011).

This refers to who we see as **worthy** of our moral attention.

Some argue that this circle is constantly **expanding**, growing from our close relatives to eventually extend to pets, wild animals and even nature itself, such as trees and plants (Singer, 2011).



Previous studies have used this metaphor to examine moral evaluation towards human and non-

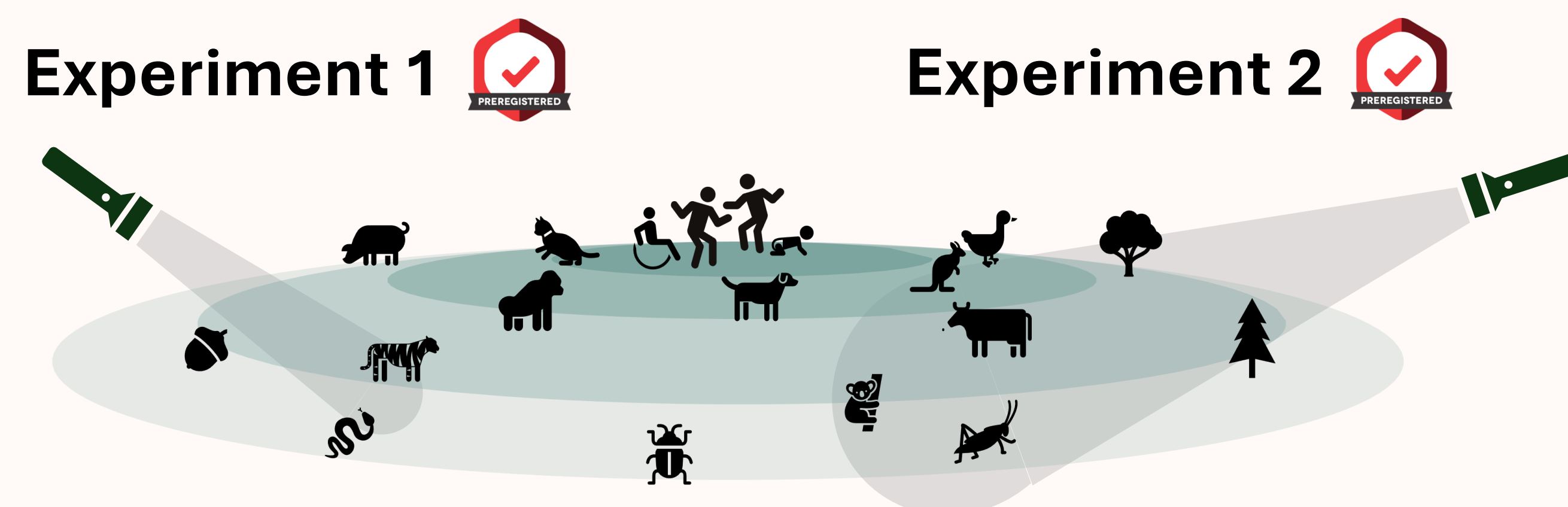
human entities. Typically, these studies have relied on **self-reported locations in moral-circle-based positioning tasks**, narrowing down the measure of moral worth to attitudinal moral reports.

However, there is evidence suggesting that our **attitudinal reports may not accurately reflect the full extent of our moral valuation** (Zaikauskaitė et al. 2023), particularly where social desirability bias comes into play (common in animal welfare issues; Tan et al. 2021).

Main Research Questions and Methods Overview

Our **goal** was to develop **new ways of measuring the underlying cognitive structures that influence our moral decisions** about other living beings.

A total of 1,599 participants resolved dilemmas in which they **had to decide which entities to save** in a **hypothetical emergency situation**.



RQ1: How do we prioritise different pairs of entities (human and non-human)?

RQ2: Does the framing of the decision change the moral value of an entity?

In Experiment 1 participants ($n = 1,166$) **were asked to choose which of two entities to save**, one hundred times.

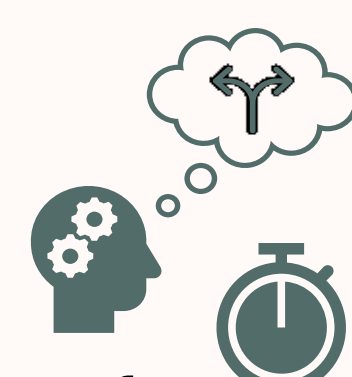
In Experiment 2 participants ($n = 405$) **were asked to make either one hundred individual decisions** involving just **one** entity each, or four **collective decisions** involving **twenty** entities each.

The dilemmas were **two-alternative forced-choice tasks**. Each trial involved a comparison between two entities selected from 1980 unique pairs of **45 images depicting 44 different species**.

Dependant measures

The **choices** and **reaction times** of each trial were recorded.

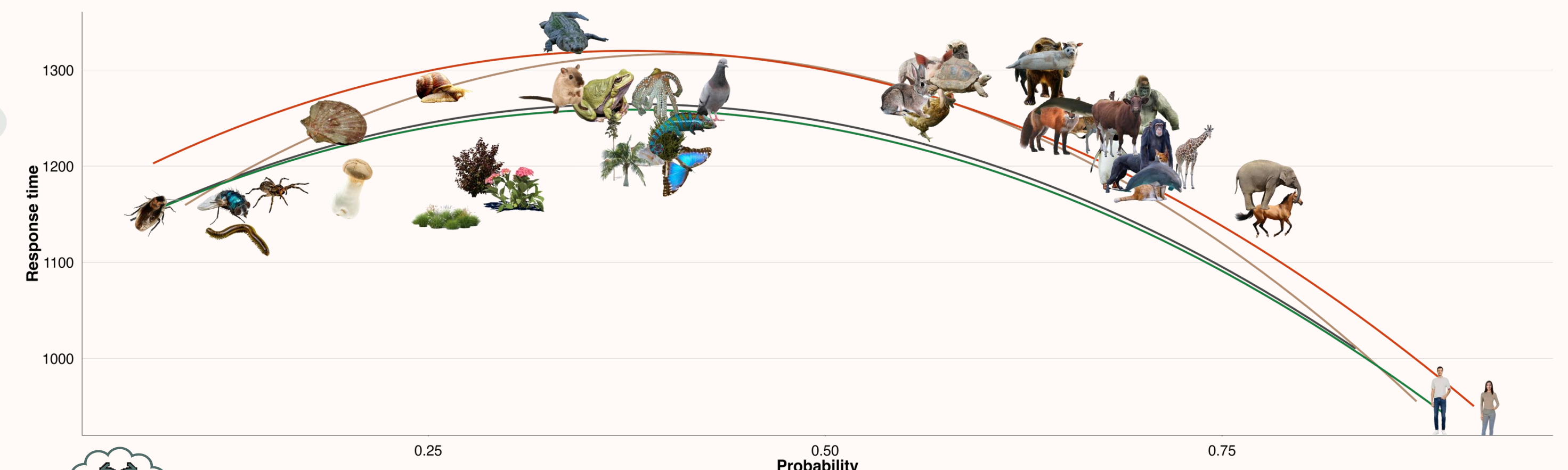
Individual differences were measured using a lottery-based secondary task and a post-test questionnaires.



TRY OUT A PHONE-FRIENDLY SIMULATION OF THE DESIGN OF THE FIRST EXPERIMENT!

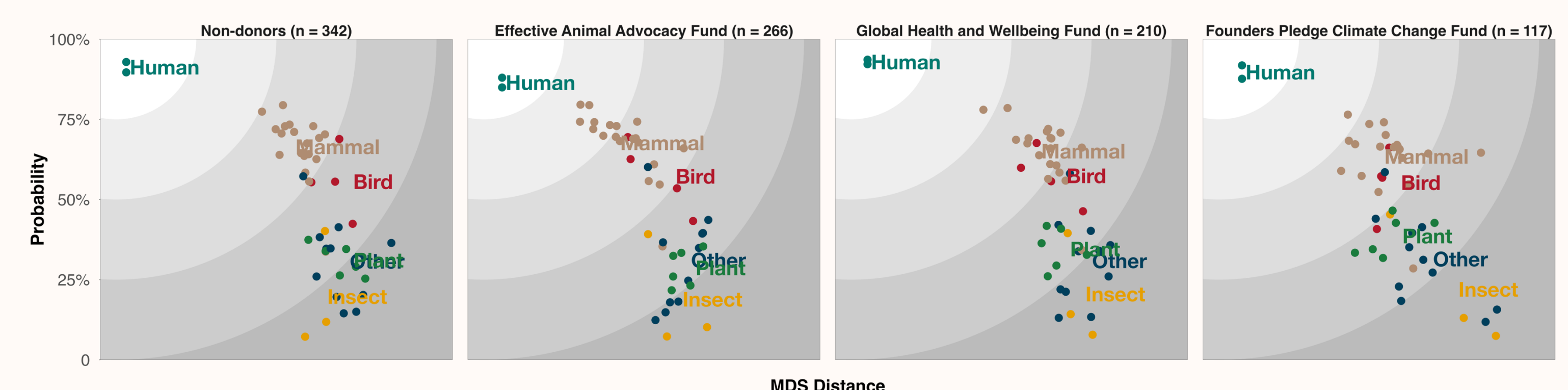
Results*

The moral valuation of non-human entities is not uniform but rather profile- and goal-frame dependent



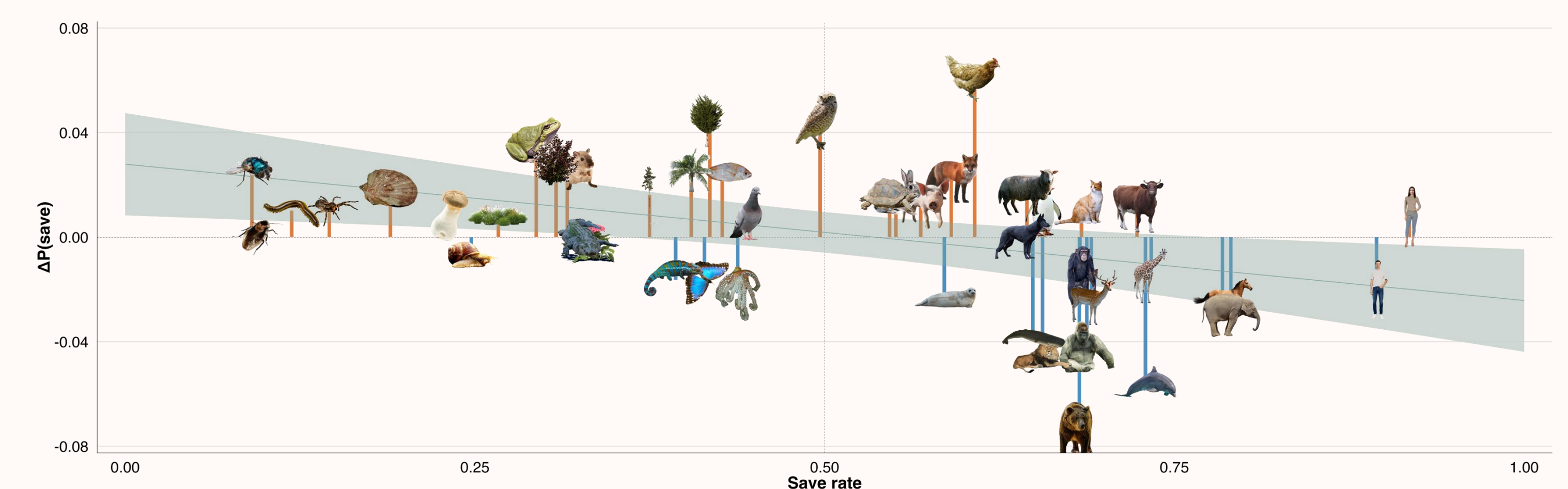
Choices: Clear pattern in the moral hierarchy, **entities** that are more closely related to us are valued more highly.

Reaction time: Decisions involving **similar** (valued) **entities take longer** than decisions involving different entities.



RQ1: How do we prioritise different pairs of entities (human and non-human)?

- Consistency throughout the moral circle.** There is an evolutionary pattern in **moral hierarchy across participants**.
- Profile-dependent differences in moral allocation.** The different treatment of species reflects differences in their **value**.



RQ2: Does the **framing of the decision** change the moral value of an entity?

- Individual decision-makers** prioritised entities that were more **familiar, charismatic and evolutionary related**.
- Collective decision-makers** prioritised less appealing and more **diverse** groups of entities.

There was a **negative correlation**. The **more** an entity was saved in the **collective** frame, the **less** likely it was to be saved in the **individual** frame.

Conclusions

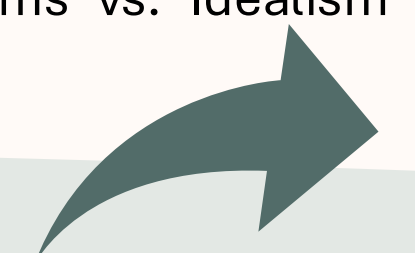
An entity's value isn't fixed. It shifts depending on who is deciding (Experiment 1) **and how the decision is framed** (Experiment 2).

Together, this results reveal that value **is not inherent to a species**. Rather it is constructed by our moral perception. Thus, moral inclusion may not only be about changing an entities' worth, but also *how we ask to see them*.

If moral value is constructed rather than fixed, then so is moral exclusion.

References

- Crimston, Charlie R., Paul G. Bain, Matthew J. Hornsey, and Brock Bastian. 2016. "Moral Expansiveness: Examining Variability in the Extension of the Moral World." *Journal of Personality and Social Psychology* 111 (4): 636–53.
- Singer, Peter. 2011. *The Expanding Circle: Ethics, Evolution and Moral Progress*. 1st Princeton University presspaperback ed. with new preface and Afterword. Princeton University Press.
- Tan, Hong Chien, Jo Ann Ho, Guan Cheng Teoh, and Siew Imm Ng. 2021. "Is Social Desirability Bias Important for Effective Ethics Research? A Review of Literature." *Asian Journal of Business Ethics* 10 (2): 205–43.
- Zaikauskaitė, Laura, Alicja Grzybek, Rachel E. Mumford, and Dimitrios Tsvirikos. 2023. "The Theory of Planned Behaviour Doesn't Reveal 'attitude-Behaviour' Gap? Contrasting the Effects of Moral Norms vs. Idealism and Relativism in Predicting pro-Environmental Behaviours." *PLOS ONE* 18 (11): e0290818.



GET MORE INFORMATION ABOUT THIS PROJECT HERE!



*These are preliminary results.