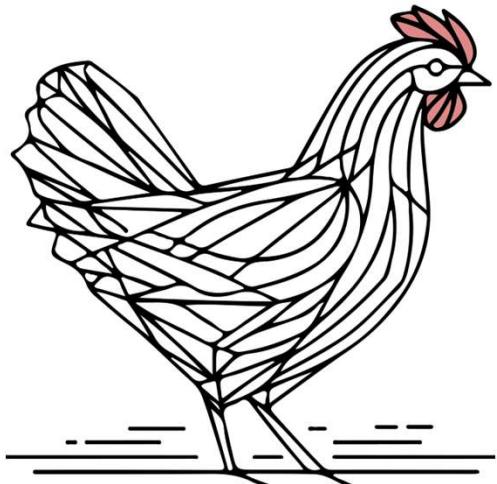


Fairness judgements about animals

Romain Espinosa & Nicolas Treich

Journal of Economic Inequality (2025)



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Authors

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 - Animal welfare, plant-based diets, law and economics, environmental economics, public choice
- Nicolas Treich
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 - Decision theory, environmental economics, animal welfare, behavioural economics, benefit-cost analysis

Authors' publications on animal welfare

- + Fairness Judgments About Animals

Journal of Economic Inequality, with N. Treich

- + Monetizing Animal Welfare Impacts for Benefit-Cost Analysis

Journal of Benefit-Cost Analysis, with M. Budolfson, B. Fischer, and N. Treich

- + Beyond anthropocentrism in agricultural and resource economics

Australian Journal of Agricultural and Resource Economics, with N. Treich

- + Animals and social welfare

Social Choice & Welfare, Vol. 62, pp. 465–504

- + Animal welfare as a public good

Ecological Economics, with N. Treich

- + Animal welfare: Antispeciesism, veganism and a "life worth living"

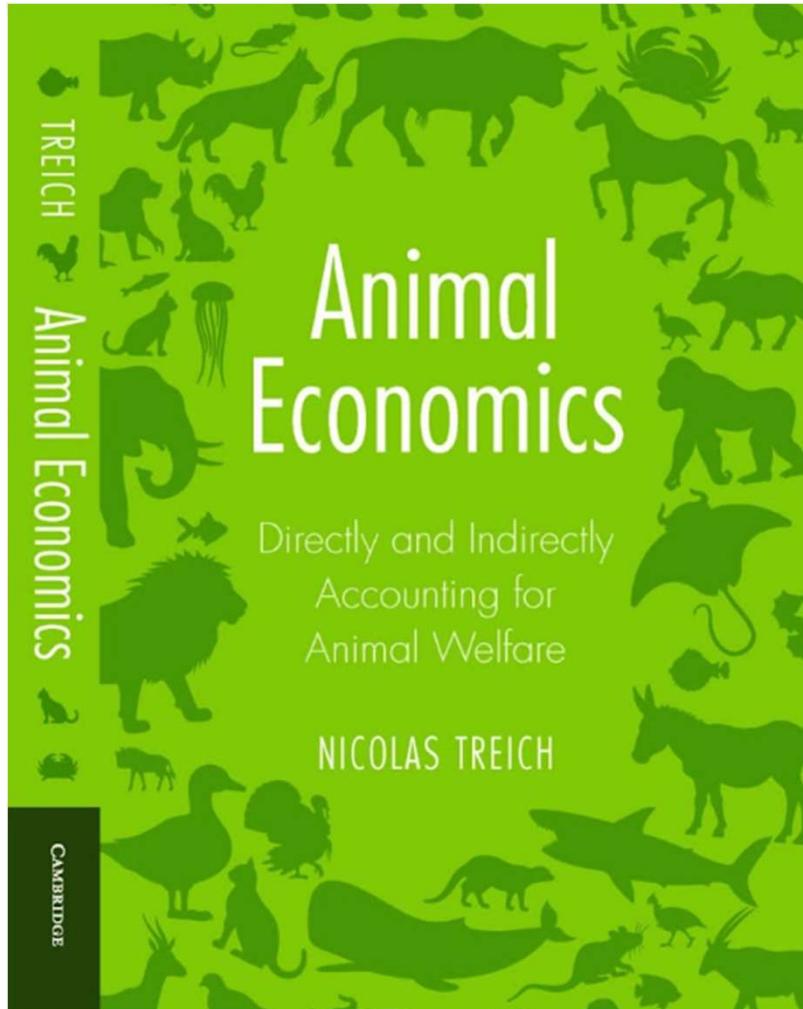
Social Choice and Welfare, Vol. 56, pp. 531–548, with N. Treich

- + The Animal Welfare Levy with N. Treich

Conditionally accepted at the *Journal of the European Economic Association*

- + Animal Quality-Adjusted Life Years - AQALY with H. Browning and N. Treich

Soon: *Animal Economics* by Nicolas Treich



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Cambridge University Press

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2025

Combining theory and empirical research to address key issues in animal welfare, including ethical perspectives, public opinion, market demand, and policy design, this book builds on economics principles to explore how to implement optimal policies that reflect human proanimal concerns and the moral status of animals.

Animal Welfare Economics Working Group

- <https://www.aw-econ.org/>
- The Animal Welfare Economics Working Group exists to coordinate and support an international, interdisciplinary network of researchers with these shared interests.
- Resources
 - People
 - Conferences
 - Seminars
 - Mentoring program
 - Research library (86 publications)
 - Data library

Introduction – animal welfare

- Animal welfare has become a major societal concern in the Western world
 - 91% of EU citizens consider it important to protect the welfare of farmed animals; 84% demand better protection (Eurobarometer)
- Yet, overall animal welfare has never been in worse state than today; for the sake of human consumption
 - Massive killing: 80 bln terrestrial and 1,600 bln wild aquatic animals
 - Significant welfare impairments associated with intensive farming
- 1970-2020, 73% decrease in the population size of monitored birds, mammals, amphibians, fish, and reptiles
- Animal suffering from degradation of ecosystems

Introduction – animal welfare

- There is a gap between the current state of animal welfare and citizens' concerns about it – public intervention warranted
- Emerging body of economics research – how to consider animal welfare in public decisions
- Need to rethink standard evaluation frameworks to accommodate multispecies evaluation
- Important concepts
 - Animals' capacity to experience welfare (sentience)
 - Inter-species welfare comparisons
 - Monetization of animal welfare scores for benefit-cost analysis
 - Animal population ethics

Introduction – this paper

- A major normative choice – (moral) weights to attach to animals relative to people and among animals (species, individuals within a species) in a social welfare function
- Philosophy and theoretical normative economics help with concepts, but citizens' views are informative
- This paper elicits citizens' views through a survey of a sample of the French population
- Several basic questions on animal welfare
- Only one paper before (a Swedish study)

Johansson-Stenman, O. (2018) "Animal welfare and social decisions: Is it time to take Bentham seriously?" Ecological Economics 145, 90–103.

- Very basic results, begging more questions

“Theoretical background”

$$\text{SWF} = \sum_{i=1}^{N_h} g_h(u_{hi}) + \sum_{s=1}^S \sum_{j=1}^{N_s} a_s \beta_{sj} g_s(\phi_s u_{sj})$$

- N_h is the number of humans, N_s is the number of animals in species s where S is the total number of species;
- u_{sj} is the “standardized” utility of animal j in species s , in which $\phi_s \geq 0$ is the “utility potential” of species s (Budolson and Spears 2020, Espinosa 2024) that permit utility comparisons across species;
- u_{hi} is the utility of a human individual i , which can take the following form: $u_{hi} = v_{hi} + \sum_{s=1}^S \sum_{j=1}^{N_s} \alpha_{isj} u_{sj}$; where α_{isj} reflects i ’s altruism toward any specific animal j within species s , and v_{hi} corresponds to human i ’s material utility;
- a_s is the “moral weight” associated with species s (Johansson-Stenman 2018; Espinosa and Treich 2021), and β_{sj} is the additional or reduced weight given to a specific animal sj ;
- g_h and g_s are the respective transformation functions of the utilities of humans and animals that can possibly vary between species (with $g_h(u) = g_s(u) = u$ being total utilitarianism, $g_h(u) = u - c_h$ and $g_s(u) = u - c_s$ being species-specific critical-level utilitarianism and $g_h(u) = g_s(u) = g(u)$ with $g(.)$ increasing and concave being prioritarianism (see Zuber et al. 2024)).

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Data

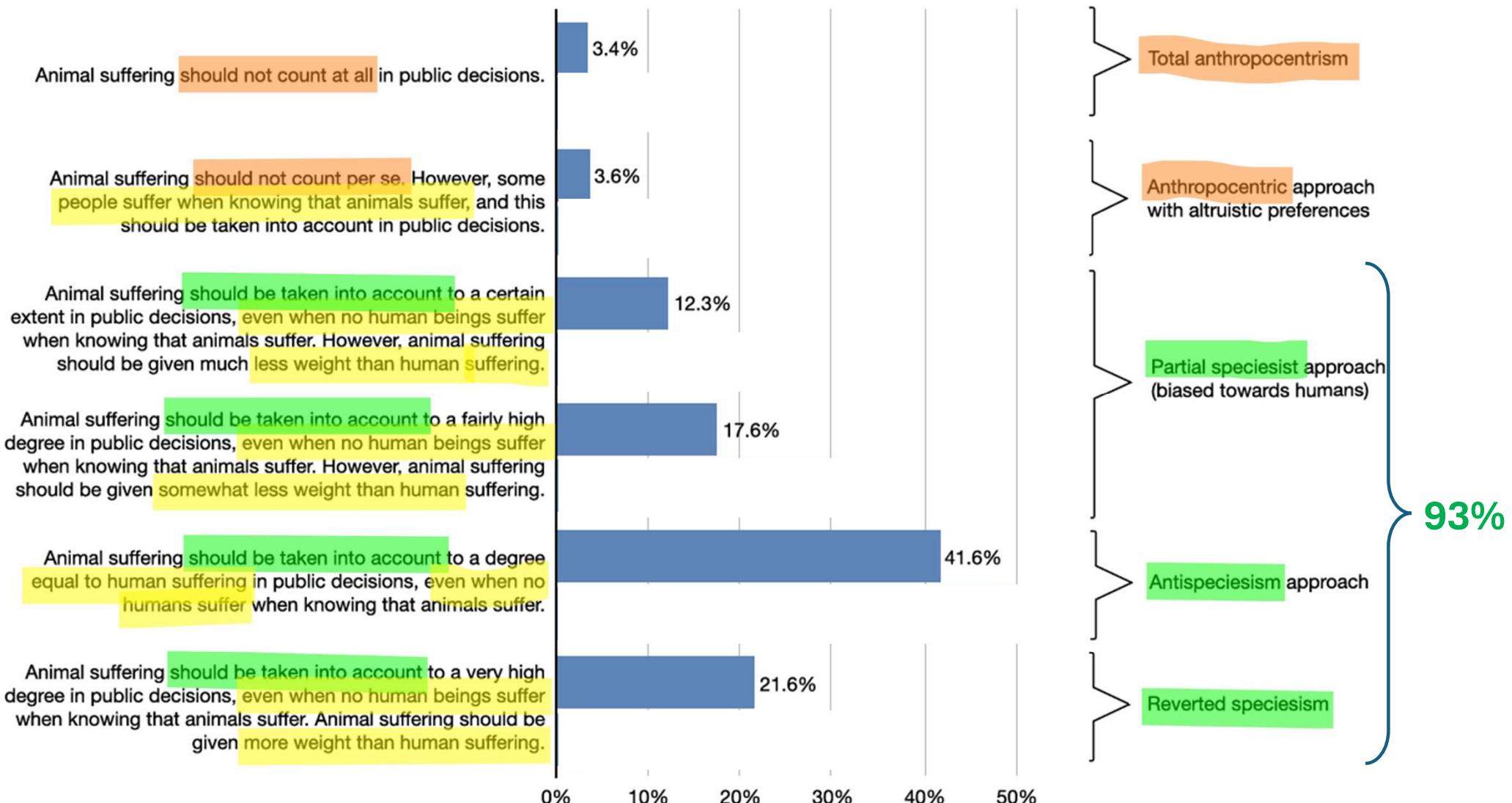
- Online survey (Qualtrics) in 2023
- N = 1526 (completed and passed attention checks)
- Sample representative of the French population in terms of gender and age structure; “all” income categories represented
- Three blocks:
 - 8 question on fairness judgements about animals
 - a discrete choice experiment on transportation
 - sociodemographic questions and attention checks
- Fixed order of questions

Results

- Fairness judgements between humans and animals
- Fairness judgements among animals
 - Across species
 - Across contexts
 - About inequality
- Animal population ethics
 - Mere addition principle & repugnant conclusion
 - Procreation asymmetry
- Cluster analysis

Fairness judgements between humans and animals

Question: Society can reduce animal as well as human suffering through various, usually costly, measures. To be able to prioritize, we need to know how great a weight society should place on reducing suffering in an animal (such as a cow) compared with reducing an equal amount of suffering in a human. Which of the following statements is most in accordance with your opinion regarding the weight that should be given to animal suffering in public decisions?



Fairness judgements between humans and animals

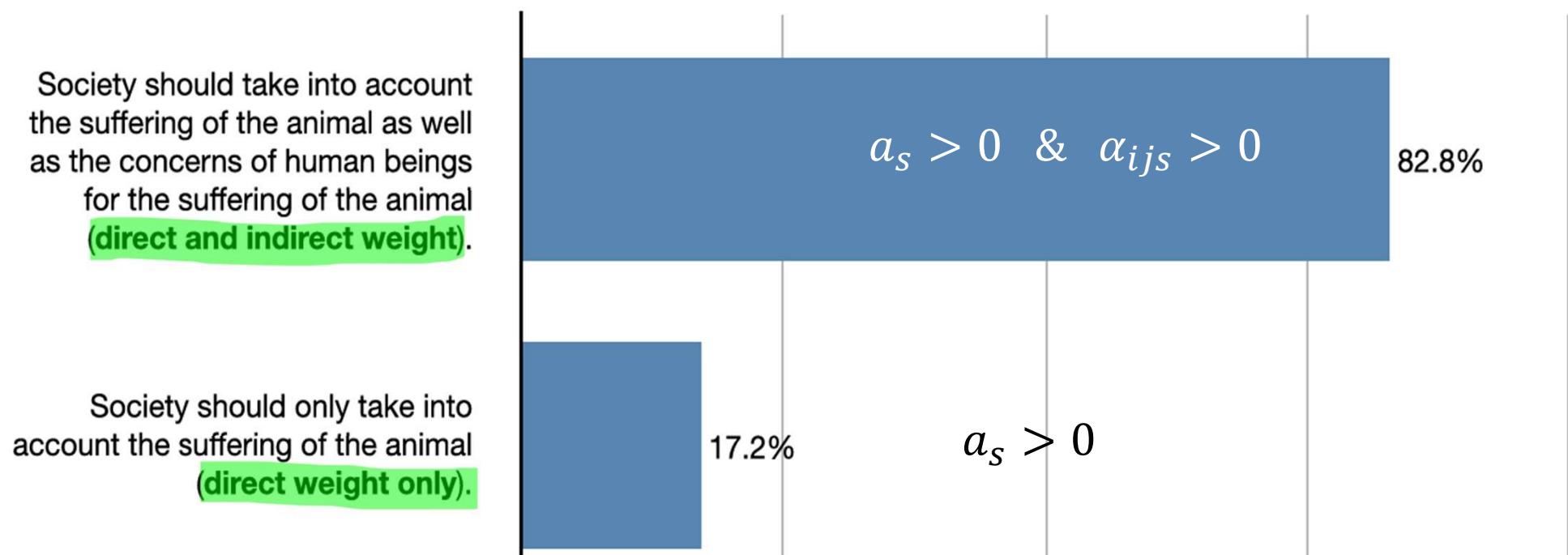
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Fairness judgements between humans and animals

Direct & indirect weight vs. direct weight only

Question: Imagine that society decides to give direct weight to animal suffering in public decisions (we speak of direct weight when we are interested in the suffering of animals for themselves, that is to say even when humans do not care). Some people wonder whether we should also take into account human concerns for animals in public decisions (what we call indirect weight). For example, if we put in place a policy to prevent suffering in dogs, should we also take into consideration the fact that their owners are unhappy that the dogs are suffering? Some experts say that animals and humans both suffer, and therefore both types of suffering should be taken into account. Others say it would be like counting the animal's suffering twice. Which of the following statements best corresponds to your opinion?



Fairness judgements among animals

Across species: species vs. species'

Question: Imagine that society decides to give direct weight to animal suffering in public decisions. Should it give equal weight to reducing the suffering of animals of different species? For example, imagine that society can reduce an equal amount of suffering in a cow or in a chicken: should it give equal weight to reducing the suffering of the cow and that of the chicken? Which of the following statements best corresponds to your opinion?

Reducing suffering in a cow should matter more than reducing the same amount of suffering in a chicken.

9.0%

$$a_{cow} > a_{chicken}$$

Reducing suffering in a cow should count for less than reducing the same amount of suffering in a chicken.

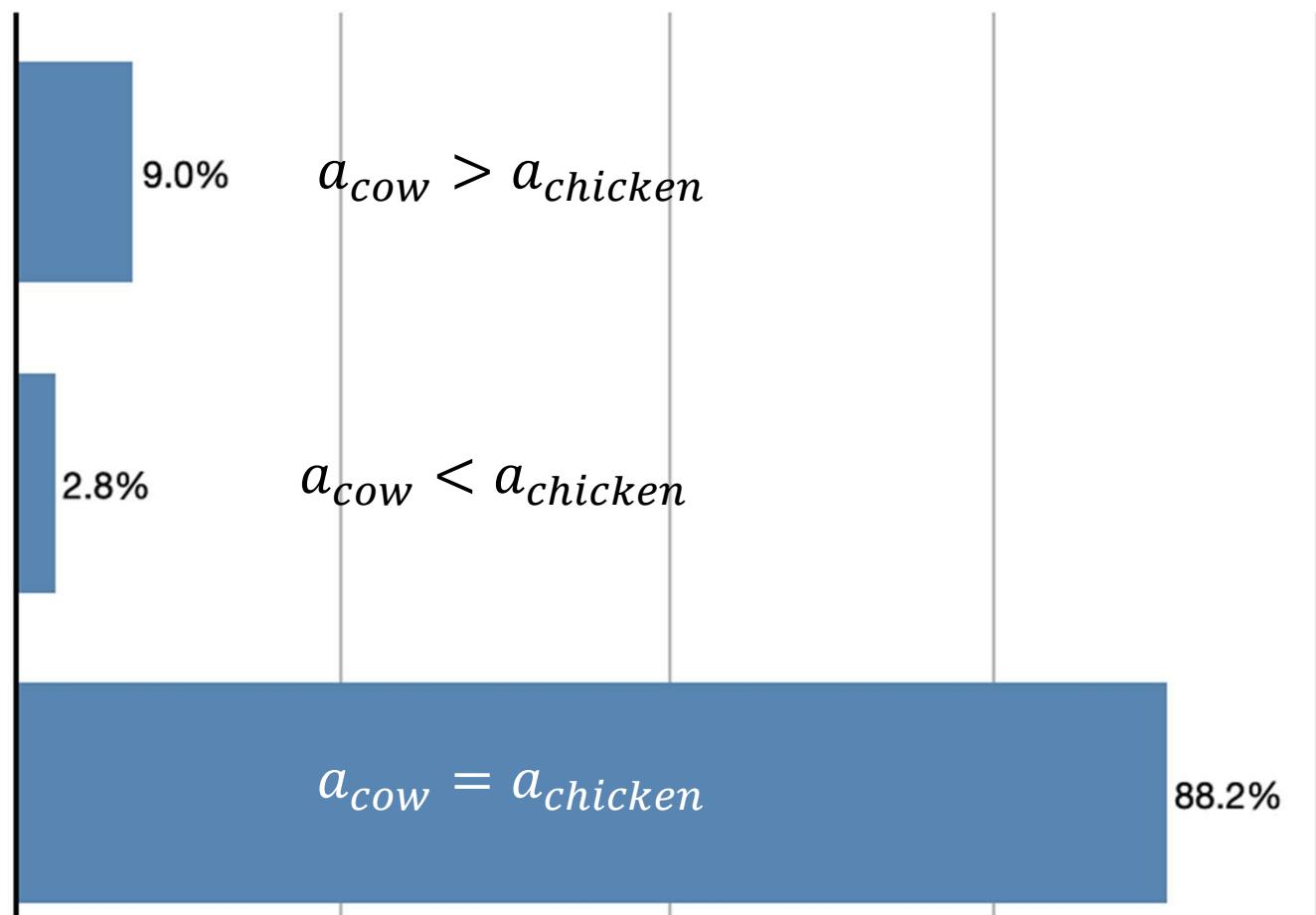
2.8%

$$a_{cow} < a_{chicken}$$

Reducing suffering in a cow should count as much as reducing the same amount of suffering in a chicken.

$$a_{cow} = a_{chicken}$$

88.2%



Fairness judgements among animals

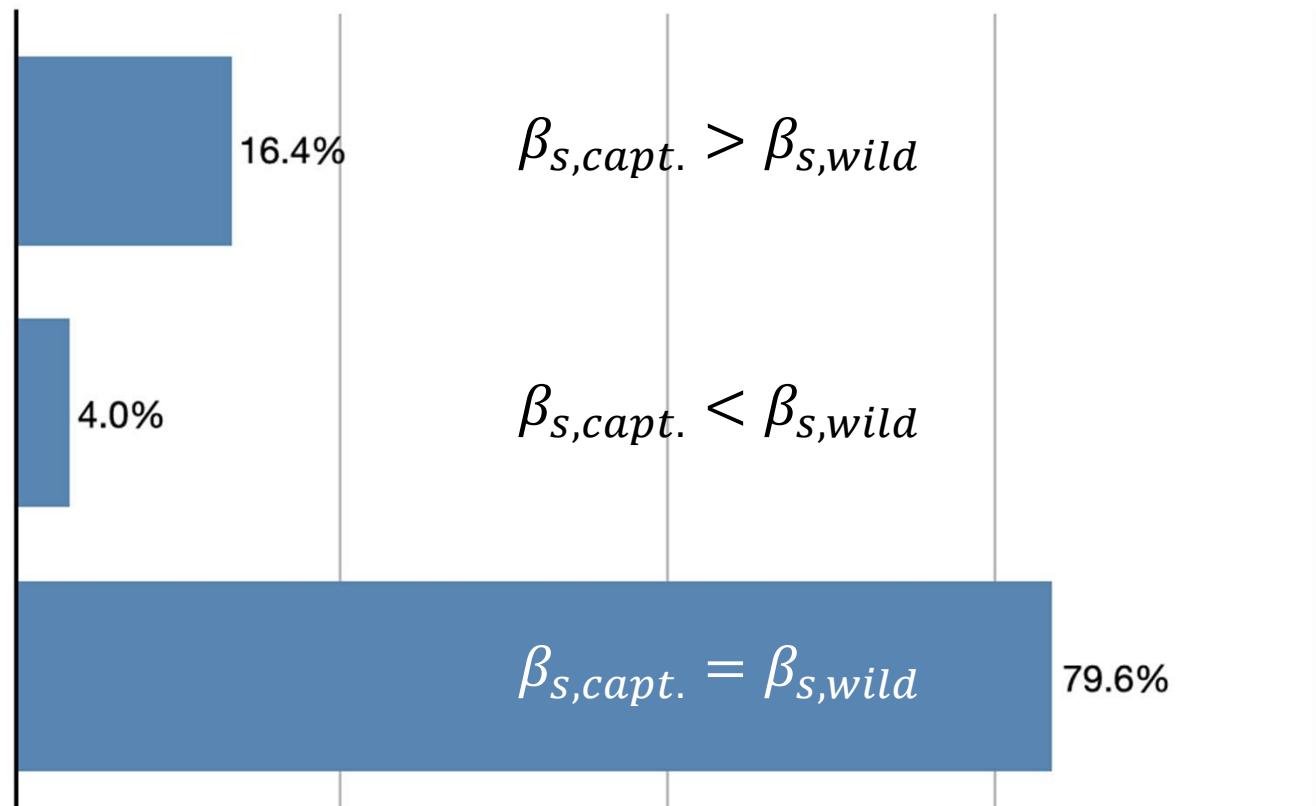
Across context: animals of same species in captivity vs. in the wild?

Question: Now imagine that society faces a situation where it can reduce the same amount of suffering in two animals of the same species. We assumed that these two animals experience the same living conditions today. One of the animals is raised in captivity while the other animal lives in a wild environment. How much weight should we give to the suffering of these two animals?

The suffering of the animal raised in captivity should have greater weight

The suffering of animals living in the wild should have greater weight

Both types of suffering should be given equal weight

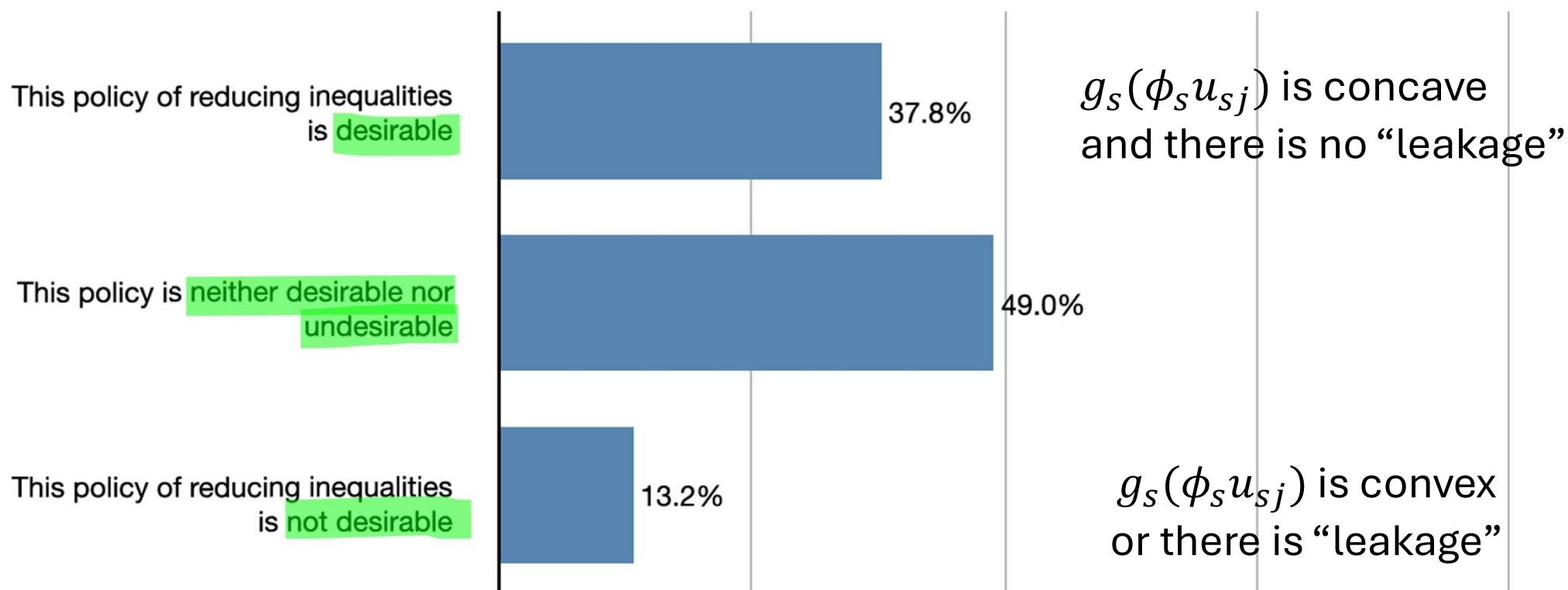


Fairness judgements among animals

“Non-anti egalitarian principle” (NAP)

Any inequality-reducing transfer of welfare that does not reduce total welfare is socially desirable

Question: Imagine a society with several animals that experience different levels of happiness (some are very happy, others are happy but a little bit less). A public policy is implemented and reduces inequalities in animal happiness (the less happy are now a little happier and the happiest are now a little less happy). Overall, the total sum of happiness and average happiness increase a little. Do you consider this policy desirable?



Animal population ethics

“Mere addition principle” (MAP) and “Repugnant conclusion” (RC)

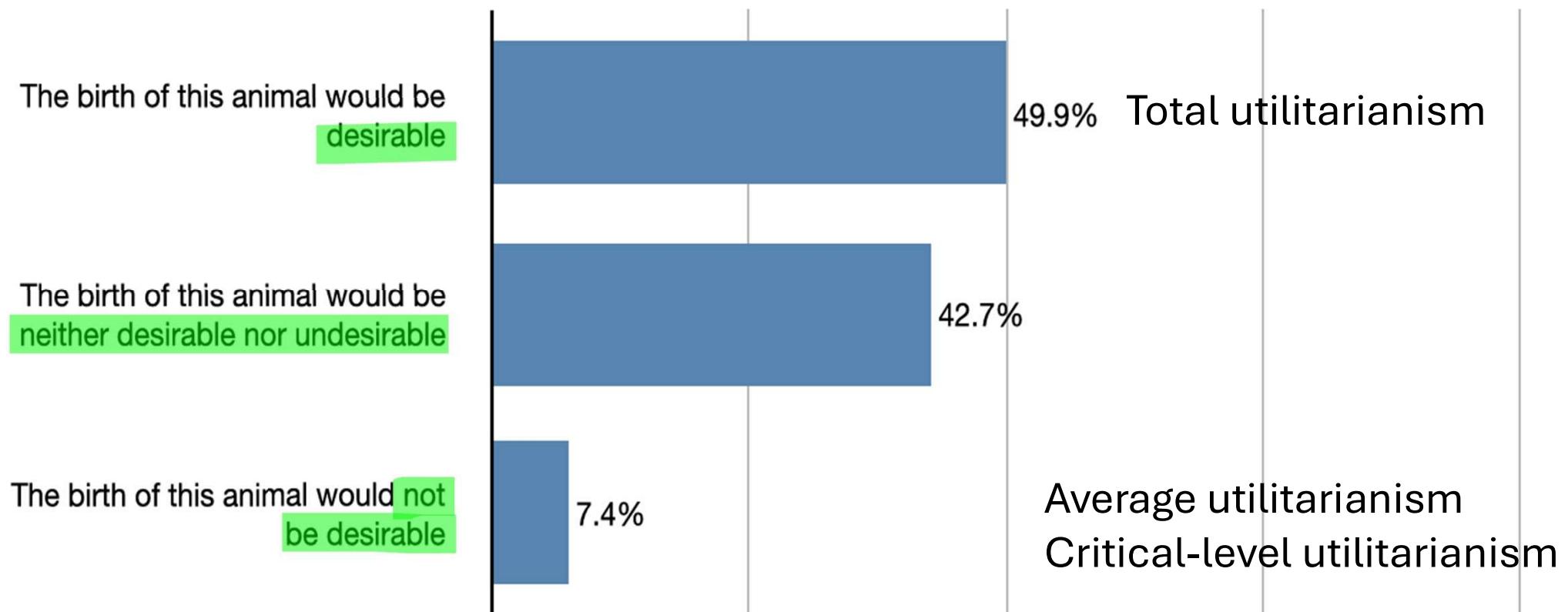
MAP: Adding to a society a life with net positive welfare (even if very small, a life “**barely worth living**”) is socially **desirable**.

RC: Successively adding lives barely worth living, which is desirable according to MAP, leads to a large society with very low average welfare but more desirable than the initial, smaller society with higher average welfare.

Animal population ethics

“Mere addition principle” (MAP) and “Repugnant conclusion” (RC)

Question: Imagine a society with several animals. Imagine that in this society we could give birth to a new animal, and that, if it were to be born, it would have a life made up mainly of happiness and pleasures. Over the entire duration of its life, it is estimated that the happiness of this new animal would be a little lower than that of animals that already exist, but that it is still positive. Do you consider that the birth of this animal would be desirable?



Animal population ethics

“Procreation asymmetry”

- Consider an unconceived person. Suppose we are certain that (s)he would have a life **not worth living**. Is this a good reason for **not** conceiving her/him?
- Consider an unconceived person. Suppose we are certain that (s)he would have a life **worth living**. Is this a good reason for conceiving her/him?
- (Yes, Yes) or (No, No) = procreation **symmetry**
- (Yes, No) or (No, Yes) = procreation **ASYMMETRY**

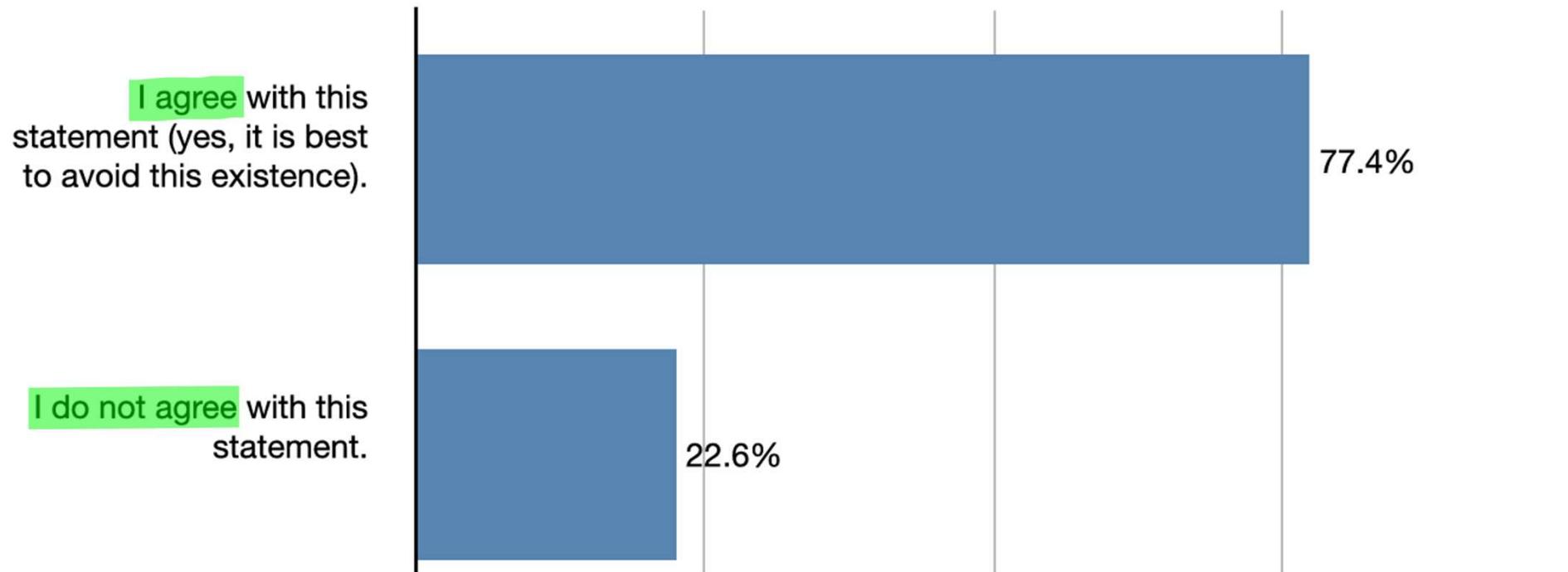
Possible reasoning behind the assymetry (Yes, No):

- Creating an individual with a **bad life** is ethically objectionable since that individual can complain about this decision.
- Conversely, refraining from creating a person with a **good life** may not be problematic since the non-existent individual cannot complain about the decision

Animal population ethics

“Procreation asymmetry”

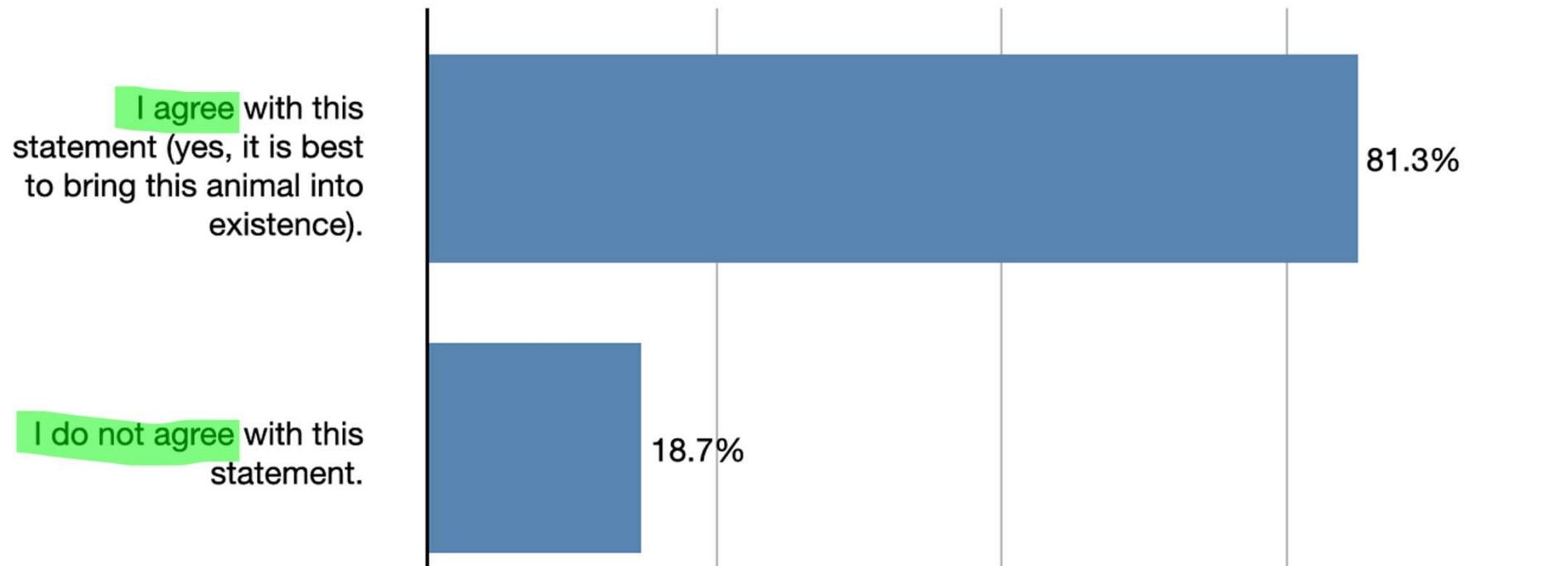
Question: Imagine that society faces a situation where it has the possibility of avoiding the conception of an animal whose life would not be worth living given the very poor living conditions that this animal would experience if it were to exist. (Note: this animal does not even exist as a fetus yet, so it is not an abortion.) Some people say it is best to avoid the conception of this animal whose life would be very bad.



Animal population ethics

“Procreation asymmetry”

Question: Imagine now that society faces a situation where it can, on the contrary, bring into the world an animal whose life would be worth living given the very good living conditions that this animal would experience if it were to exist. We imagine that the happiness of this animal would be equivalent (in positive terms) to the unhappiness that the animal would have experienced in the previous question. Some people say that it is better to bring into existence this animal whose life would be very good.



Heterogeneity

By sociodemographic characteristics

- Characteristics: age, gender, political orientation, income, animal- vs. plant-based diet, religiosity
- For robustness – **multiverse** regression analysis:
 - Regressing answers on characteristics
 - Significance of a characteristic depends on the specification (model, variable coding, inclusion of other variables) – a specific “**universe**” in a **multiverse** of possible specifications
 - Check the share of universes in the whole multiverse (**97,200** universes), where the coefficient of a variable is significant
- Generally, **little heterogeneity**:
 - Greater consideration of animal welfare in women, those with greater consumption of animal products, and higher-income individuals
 - Double-counting of welfare is less supported by higher-income individuals

Heterogeneity

Cluster analysis

80% of sample

Question and answer	Distribution of answers (%)		Proportion test	Chi2 test	Partial R ²
	Cluster 1	Cluster 2			
Q1 No weight	3.30	4.00	0.632	0.000	0.006
	Instrumental weight	3.50			
	Much less weight	10.4			
	A bit less weight	18.2			
	Equal weight	43.2			
	More weight	21.4			
Q2 Direct only	17.8	14.8	0.254	0.254	0.007
	Direct and indirect	82.2			
Q3 Less weight to cow	1.50	8.10	0.000	0.000	0.017
	Equal weight	89.1			
	More weight to cow	9.40			
Q4 Against avoiding	14.2	57.4	0.000	0.000	0.126
	Avoid this life	85.8			
Q5 Against creating	2.80	84.2	0.000	0.000	0.656
	Create this life	97.2			
Q6 More weight for captive animal	16.6	15.4	0.686	0.011	0.001
	Equal weight	80.1			
	More weight for wild animal	3.30			
Q7 Non-desirable birth	5.50	15.4	0.000	0.000	0.067
	Neither	37.7			
	Desirable birth	56.8			
Q8 Non-desirable inequality reduction	12.5	16.1	0.125	0.000	0.004
	Neither	46.1			
	Desirable inequality reduction	41.4			

Discussion

Main results and implications for public decisions

- More than 90% of citizens support some form of direct inclusion of animal welfare – the need for economics to **develop tools to value animal welfare**, e.g. in benefit-cost analysis
 - Challenge: **interspecies welfare comparisons** given different capacities to experience the world
- Willingness to consider animal interests covers **several species** and **several contexts**
 - Animals kept in captivity: **scrutinising animal farming**, but also wild animals used in **circuses**, for high-school **teaching**, and for shows in **dolphinariums**
 - Wild animals: reconsidering our impact on the welfare of animals in special **ecosystems**, not only their instrumental value.

Main results and implications for public decisions

- Most citizens are willing to consider **both direct and indirect** (via human altruism) impact on animal welfare
 - Counting all “experienced welfare” – **double counting**
 - Giving more weight to animals that people care (more) about – **unequal treatment**
- Modest support for **inequality-reducing redistribution** of welfare among animals; most citizens are **indifferent** about such policies
 - Particularly striking given that the inequality-reducing policy was said to increase total welfare
 - Reasons for indifference to be explored

Main results and implications for public decisions

- Many citizens **do not adhere to the mere addition principle**: a net-positive lifetime utility is not a sufficiently good reason for bringing an animal into existence
 - Against total utilitarianism, in favour of critical-level utilitarianism
 - >80 bln. terrestrial animals raised and slaughtered for human consumption each year – animal farming cannot just create lives that are barely worth living

Preporuke za čitanje (I.R.)

