

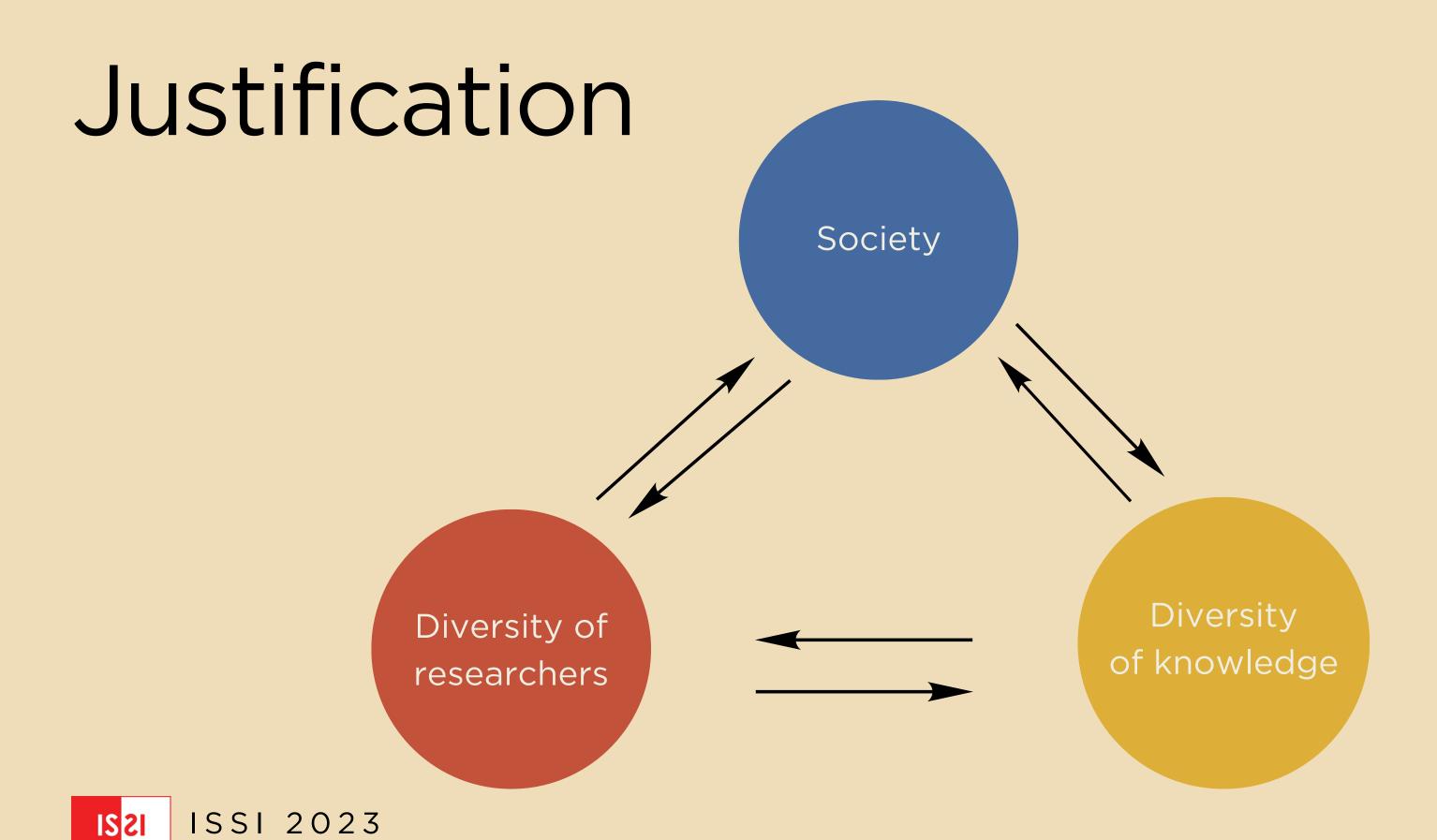
### Niños furbito y niñas lo que sea:

The gender gap in science and the consequences for the scientific knowledge that is created

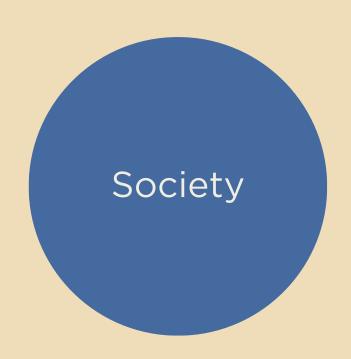


Art by @oddrabid

ELVIRA GONZÁLEZ-SALMÓN SUPERVISORS: ZAIDA CHINCHILLA-RODRÍGUEZ & NICOLÁS ROBINSON-GARCÍA UNIVERSIDAD DE GRANADA JULY 2ND, 2023



### Justification



Diversity of researchers

Diversity of knowledge

## Background

Differences

Factors

Consequences

Authorship

Collaboration

Women's careers

Collaboration

Networking

Research topics/knowledge that is generated

Citations

Discrimination

Diversity

Number of publications

Academic status

Evaluations

Stereotypes

Families

Mobility

Coronavirus

Journals

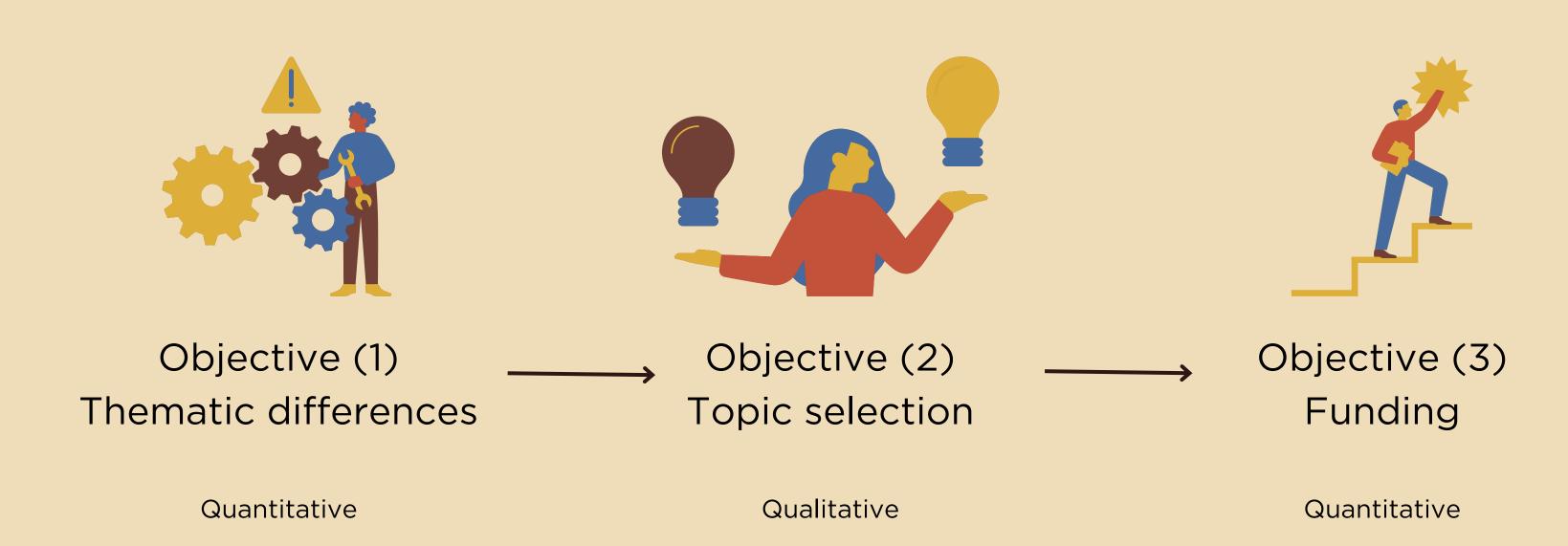
Conferences

## Research question

Do gender differences in science have an impact on the kind of knowledge that is generated?



## Objectives



## Preliminary results

#### Parity predictions paper

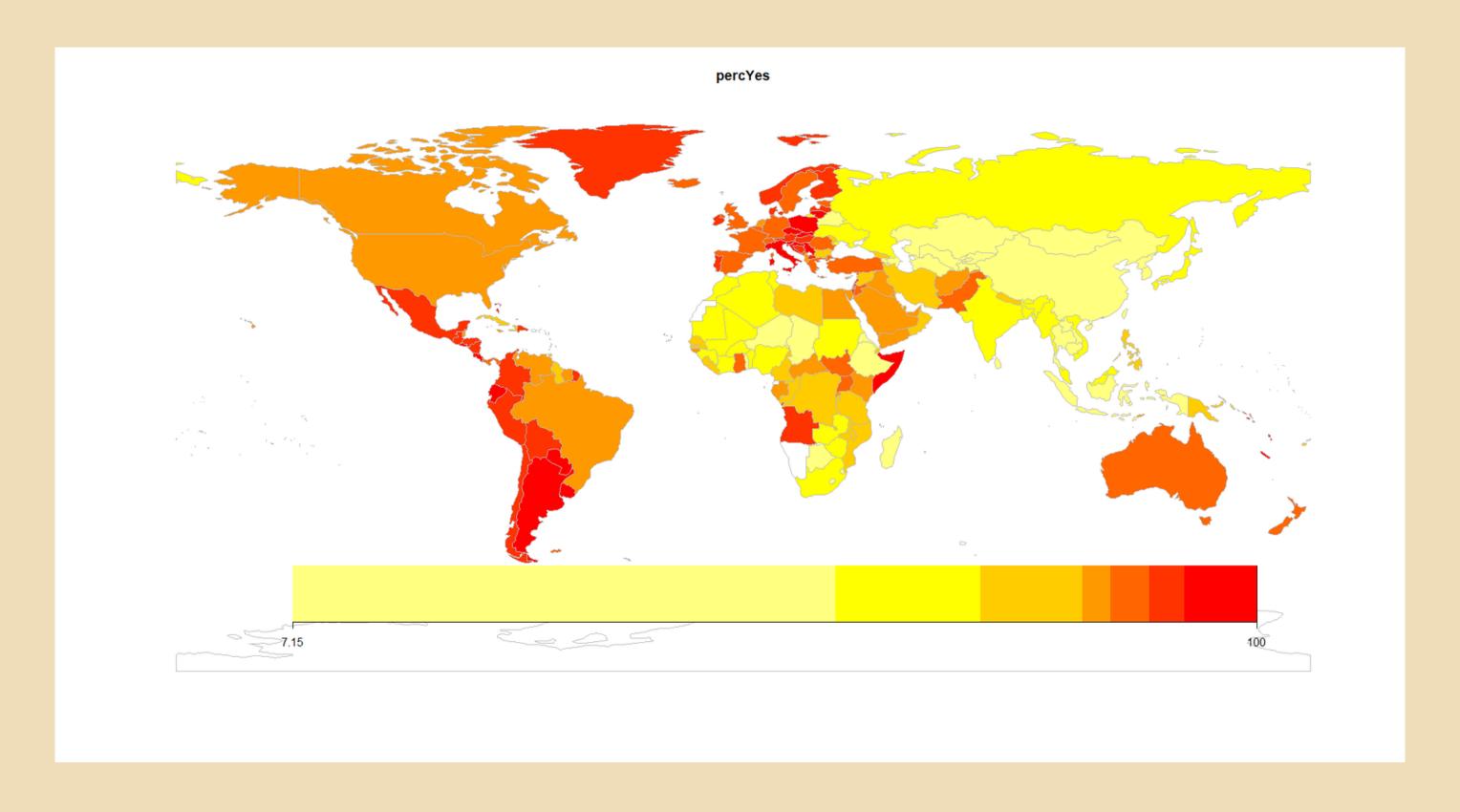
RQ: When will we reach parity?

- Data: Dimensions 1990 2015 (publications)
- By countries and disciplines (topics)
- Predictive models
- Parity index

An ampliation of: Holman, L., Stuart-Fox, D., & Hauser, C. E. (2018). The gender gap in science: How long until women are equally represented? PLoS biology, 16(4), e2004956.



#### Step 1: Gender disambiguation



#### Step 1: Gender disambiguation

However... I should take **country** into consideration (i.e. Andrea):

- 1. Data from Wikidata divided by country
- 2. Country specific-lists:
  - Asia
    - India
    - Japan
    - China
    - Taiwan
    - Russia
  - Africa



### Limitations

Technical limitations

Conceptual limitations

Gender identification algorithm

Causality

Normalization of funding data

Delimitation of research topics

### References

Derrick, G. E., Chen, P. Y., van Leeuwen, T., Larivière, V., & Sugimoto, C. R. (2022). The relationship between parenting engagement and academic performance. Scientific Reports, 12(1), 22300.

Kozlowski, D., Larivière, V., Sugimoto, C. R., & Monroe-White, T. (2022). Intersectional inequalities in science. Proceedings of the National Academy of Sciences, 119(2), e2113067119.

Lindqvist, A., Sendén, M. G., & Renström, E. A. (2021). What is gender, anyway: a review of the options for operationalising gender. Psychology & sexuality, 12(4), 332-344.

Van den Besselaar, P., & Sandström, U. (2017). Vicious circles of gender bias, lower positions, and lower performance: Gender differences in scholarly productivity and impact. PloS one, 12(8), e0183301.

Koning, R., Samila, S., & Ferguson, J. P. (2021). Who do we invent for? Patents by women focus more on women's health, but few women get to invent. Science, 372(6548), 1345-1348.

Nielsen, M. W., Andersen, J. P., Schiebinger, L., & Schneider, J. W. (2017). One and a half million medical papers reveal a link between author gender and attention to gender and sex analysis. Nature human behaviour, 1(11), 791-796.



# Thank you! Any questions?

- @egonzalezsalmon
- elviragonzalez@go.ugr.es