

Parity & Gender biases

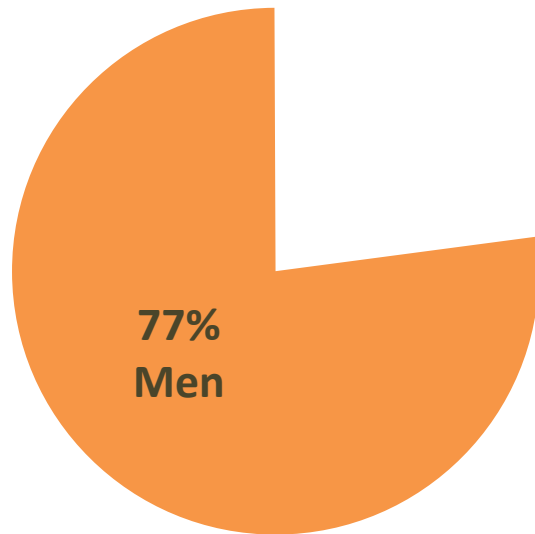
Maïca Clavel
Equality correspondent at l'IPAG



*A&A equality network set up by INSU
following the 2019 prospective*

Parity in Astro & at PNHE

Permanent positions in A&A (France)



At **PNHE**, almost the same!

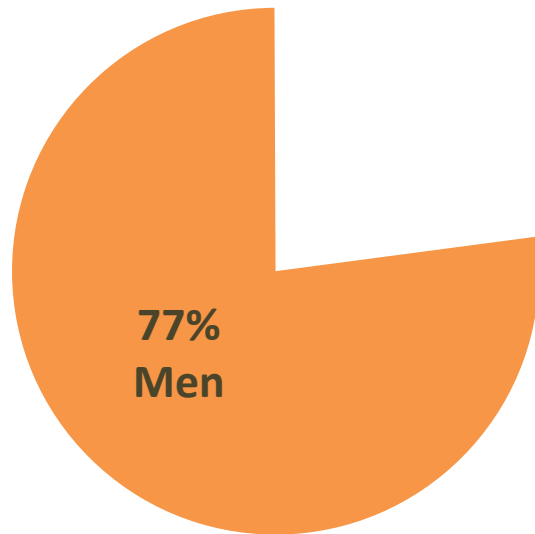


*Missing precise statistics
including for non permanent people*

Bot & Buat (2020); Sondage PNHE

Parité en Astro & au PNHE

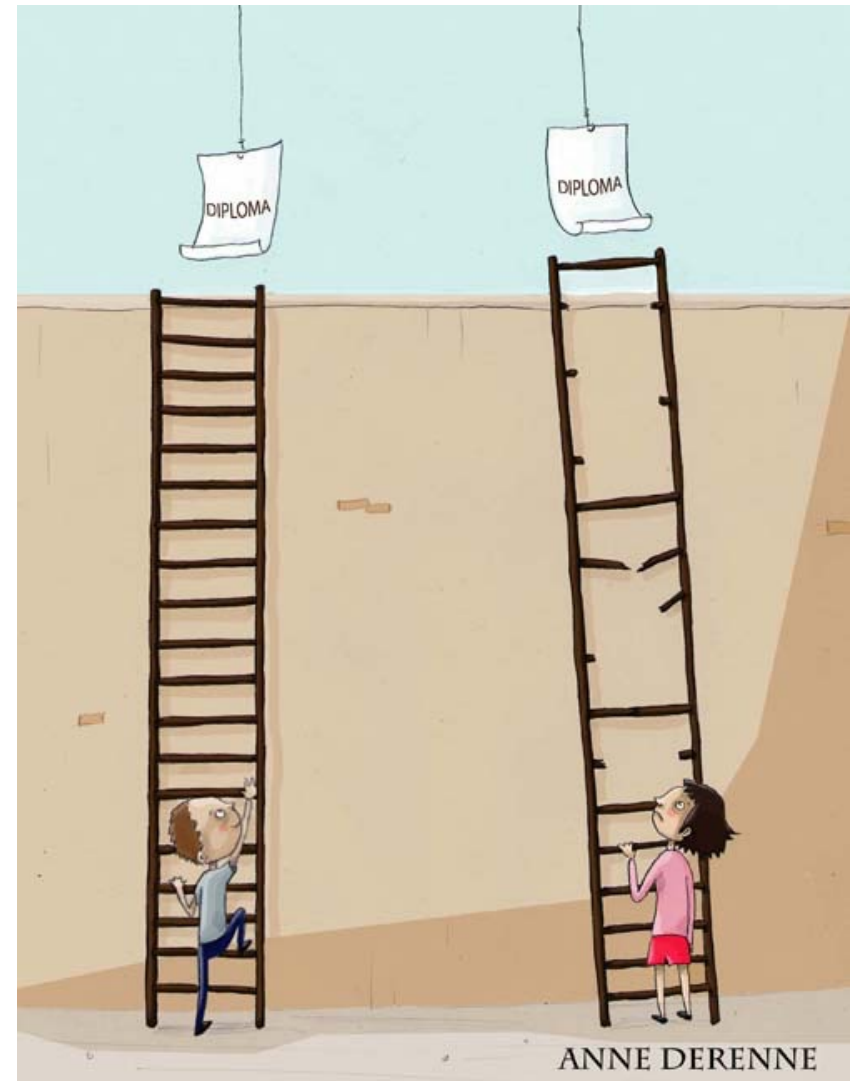
Permanent positions in A&A (France)



At **PNHE**, almost the same!

↳
*Missing precise statistics
including for non permanent people*

Bot & Buat (2020); Sondage PNHE

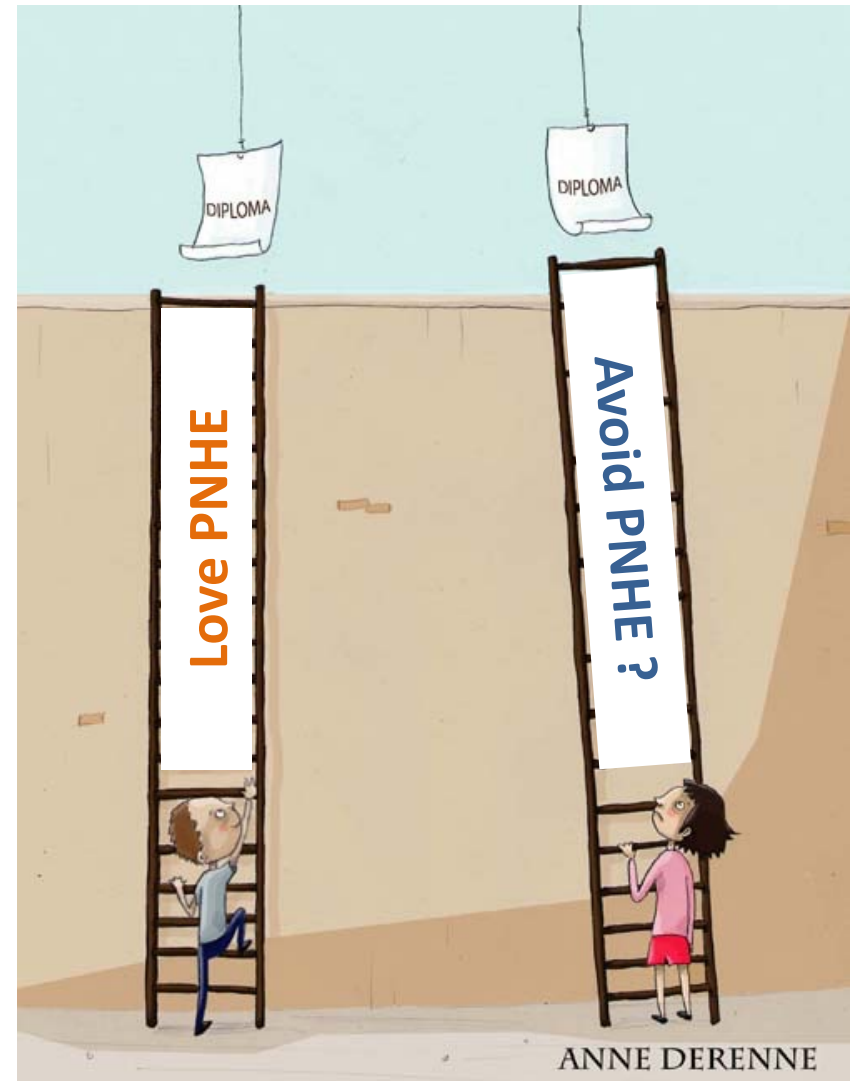


Choice or inequality?

Gentille
Emotive Attentive
Compétences Verbales Amicale
Appliquée Intéressée Par Les Enfants
Souriante Attentive A son Apparence
Littérature Coopérative Loyale
Patiente Chaleureuse
Polie Sensible

Brillant
Ambitieux Déterminé Sportif
Indépendant Fiable Doué En Sciences
Mathématiques Sens Des Affaires
Forte Personnalité Leadership
Dominant Rationnel Sûr De Lui
Affirmé

[Words typically associated with
Women (top) and Men (bottom)]



ANNE DERENNE

Choice or inequality?

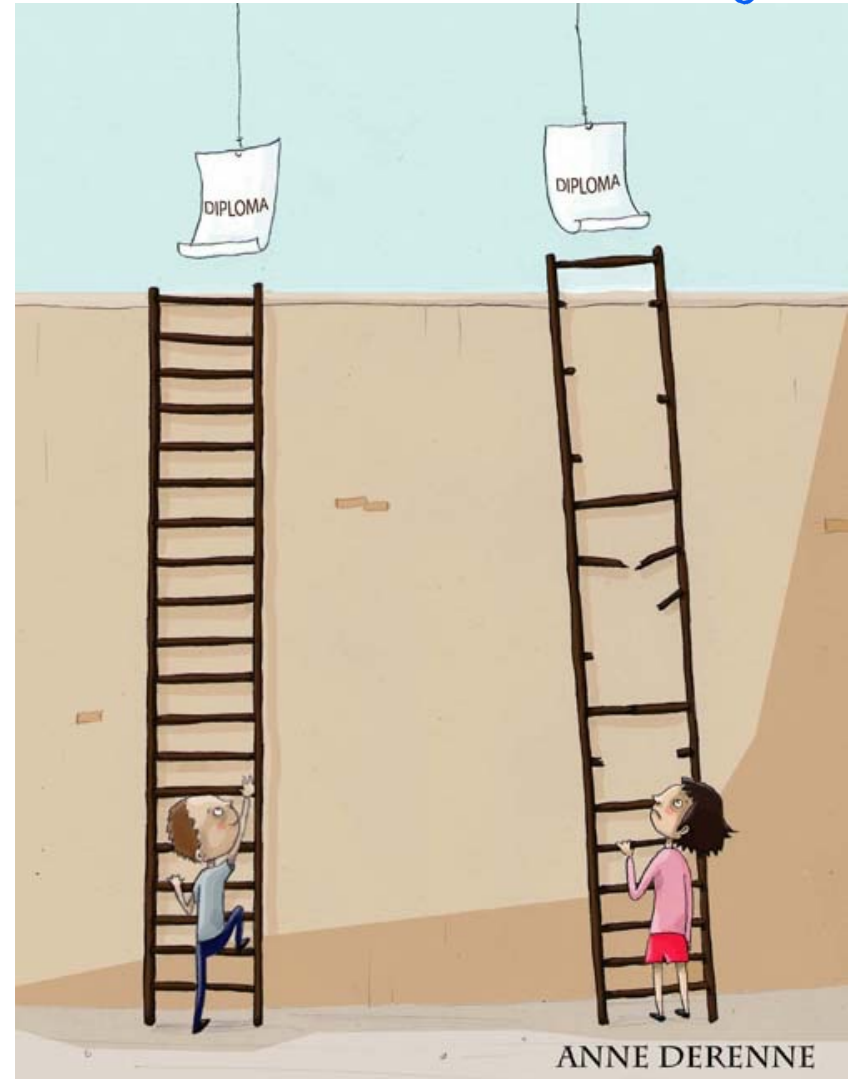
From a collective point of view, it's rather an inequality!

Gentille
Emotive Attentive
Compétences Verbales Amicale
Appliquée Intéressée Par Les Enfants
Souriante Attentive A son Apparence
Littérature Coopérative Loyale
Patiente Chaleureuse
Polie Sensible

Brillant
Ambitieux Déterminé Sportif
Indépendant Fiable Doué En Sciences
Mathématiques Sens Des Affaires
Forte Personnalité Leadership
Dominant Rationnel Sûr De Lui
Affirmé

There is nothing innate about it!

e.g. Mead et al. 1975



What is a stereotype?



Examples of gender stereotypes

Crédits : C. Verniers & C. Aelenei
(SF2A 2021)

A social categorization process used to simplify the environment and speed up judgments.



We put people in boxes

- ➔ Amplification des similarities (intra-group)
- ➔ Amplification des differences (inter-group)

Useful

Bias generator

Begin to be integrated as early as age 6!

Consequences of stereotypes

Automatic
activation

For « target » people

Effects on cognitive functioning

- Self-evaluations
- Learning
- Performance

Stereotype threat

Crédits : I. Régner (conference égalité homme-femmes en milieu professionnel - 2021)

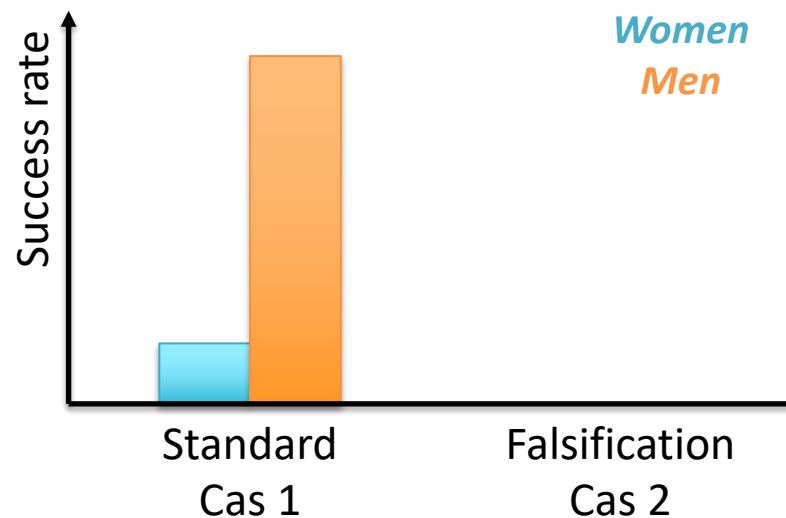
Stereotype threat

Impacts people's performance

Numerous studies on the subject: identical conclusions

Example : Women & Maths

Mathematics test
without (Case 1) or with (Case 2)
falsification instruction: "On this test,
there are no differences
between men and women".



e.g. Spencer, Steele & Quinn (1999), Régner et al. (2010)

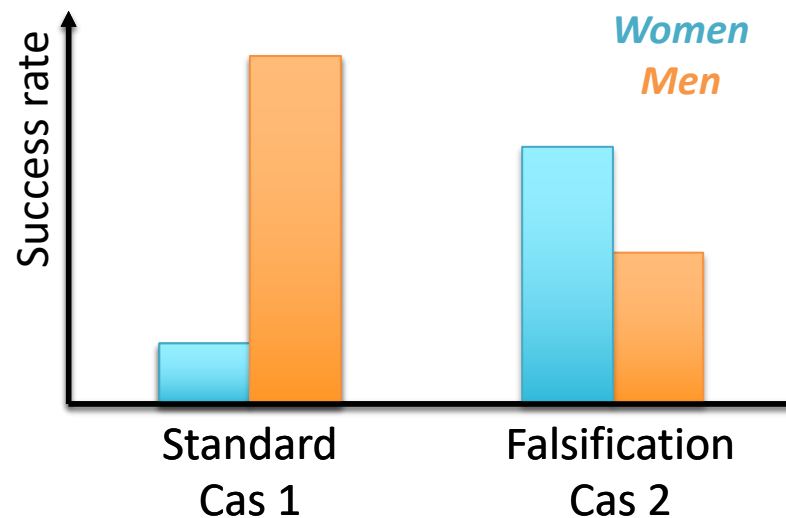
Stereotype threat

Impacts people's performance

Numerous studies on the subject: identical conclusions

Example : Women & Maths

Mathematics test
without (Case 1) or with (Case 2)
falsification instruction: "On this test,
there are no differences
between men and women".



We're not completely equal!

e.g. Spencer, Steele & Quinn (1999), Régner et al. (2010)

Consequences of stereotypes

Automatic activation

whether they agree or disagree with these stereotypes

For « target » people

Effects on cognitive functioning

- Self-evaluations
- Learning
- Performance

Stereotype threat

For « carriers »

Effets on perceptions and judgments

- Evaluations
- Recruitments
- Promotions

implicits biases

Discrimination

Crédits : I. Régner (conference égalité homme-femmes en milieu professionnel - 2021)

Influence of implicit biases

Impacts on evaluations and recruitment

Evaluation of the same CV : Jennifer versus John

Example: Jennifer/John's application for a management position in the laboratory to help develop mentoring programs for undergraduate science students (USA)

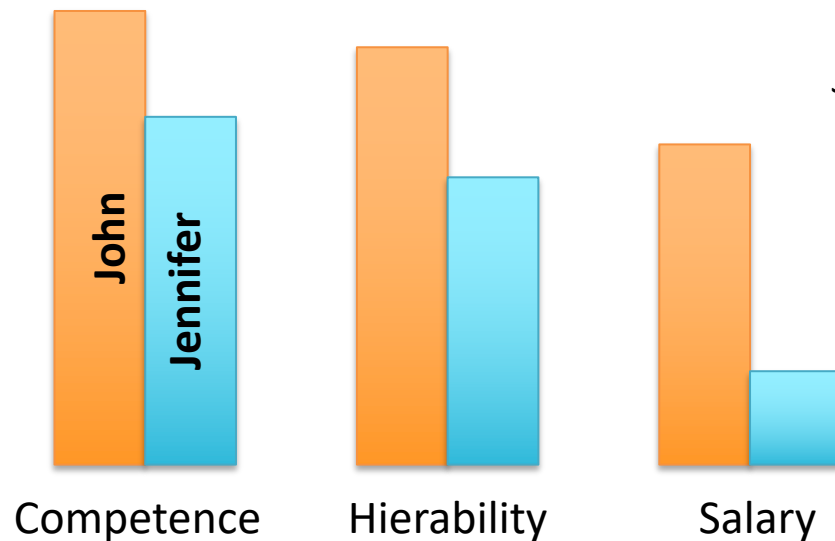
Moss-Racusin et al. (2012)

Influence of implicit biases

Impacts on evaluations and recruitment

Evaluation of the same CV : Jennifer versus John

Example: Jennifer/John's application for a management position in the laboratory to help develop mentoring programs for undergraduate science students (USA)



Jennifer is considered **less competent** than John

She is therefore less likely to be recruited.


Also true for publications, requests for time, funding...

Significant differences

Moss-Racusin et al. (2012)

Proposed solutions

Anonymisation of applications

 In progress for requests for time and funding from NASA and ESO

First results

HST Observations

More young PIs

Reduced M/F differences

ADAP Funding

More female candidates

Disappearance of M/F differences
in terms of success

e.g. Reid et al. (2014), Patat (2016)

Proposed solutions

Anonymisation of applications



In progress for requests for
time and funding from
NASA and ESO

First results

HST Observations

More young PIs

Reduced M/F differences

ADAP Funding

More female candidates

Disappearance of M/F differences
in terms of success

e.g. Reid et al. (2014), Patat (2016)

Raising committee awareness

Example: recruiting veterinary surgeons -
same CV: Elizabeth vs Mark
in profession that is now at « parity »

e.g. Begeny et al. (2020), Régner et al. (2019)

Proposed solutions

Anonymisation of applications

In progress for requests for time and funding from NASA and ESO

First results

HST Observations

More young PIs

Reduced M/F differences

ADAP Funding

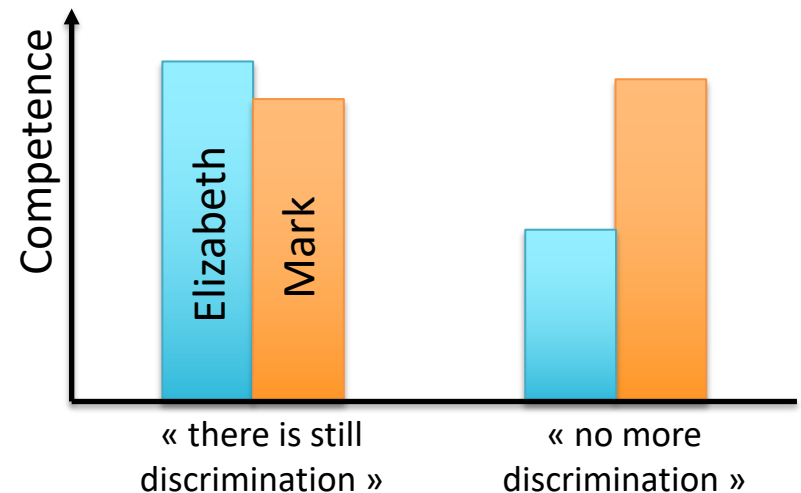
More female candidates

Disappearance of M/F differences
in terms of success

e.g. Reid et al. (2014), Patat (2016)

Raising committee awareness

Example: recruiting veterinary surgeons - same CV: Elizabeth vs Mark in profession that is now at « parity »



People who think that discrimination no longer exists continue to discriminate

e.g. Begeny et al. (2020), Régner et al. (2019)

Awareness tool

And good practices



FORMATION EN LIGNE

« INÉGALITÉS FEMMES-HOMMES DANS LA RECHERCHE »

Mieux les connaître pour mieux construire l'égalité.

Online training on this topic, register here:

<https://framaforms.org/demande-dinscription-au-elearning-cnrs-les-inegalites-femmes-hommes-dans-la-recherche-1616426124>

45 minutes divided into 5 modules

Open to anyone with Janus access

Available in English and French

Goes beyond the aspects covered in this presentation

Other resources

- <https://implicit.harvard.edu/implicit/>
(Implicit Association Test - IAT)
- <https://sf2a.eu/website2023/>
(women and astronomy commission)
- <https://academics.skidmore.edu/blogs/vids/>
(12 videos on gender bias)
- <https://gender.cerca.cat/en/bias-in-recruitment/>
(video on bias in job interviews)