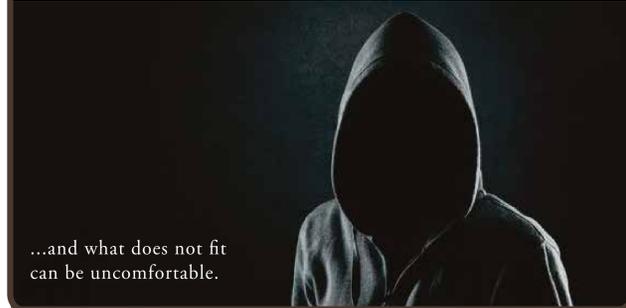


Beyond stereotypes

- counteracting particularly gender biases in teaching, learning and assessment

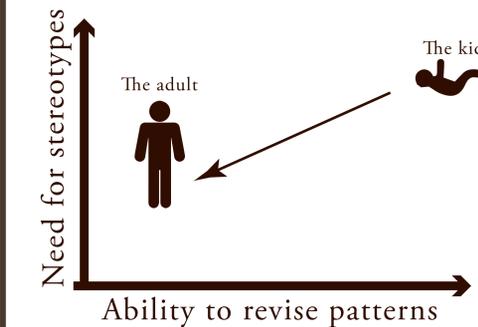
Apparently, we all try to match impressions with **patterns** and classifications



To classify the world is useful and...



But then what?



After learning to live, we stiffen without noticing

So implicit biases quietly shape actions and future - for ourselves & others

e.g.



School kids perform better on math when allowed to sign tests with a boy's name¹ and teachers give boy name tests a higher grade². A similar stereotype threat is noted for women.³



University students grade their online teacher higher if they think it is a man.⁴



University teacher grading is influenced by gender and race.^{5,6}

Timely Publication of Articles

Allen Clark, Jill Stigleman-Jackson, and Ben Newman

Peer review of manuscripts⁷ and grants^{8,9} c.f.¹⁰ applications are harsher if the reviewers think the author is female, while double-blind peer review increases the number of female first authors.¹¹



Institute leaders (psychology)¹² and labmanagers¹³ (both men and women) prefer John over Jennifer despite identical CVs; and evaluations are plastic after gender.^{14,15}



Award procedures are gender biased, compared to the gender pools among active candidates.¹⁶



Blind orchestra auditions (behind a curtain and without shoes) dodge gender and race biases.¹⁷



Just as biology adapts to its environment so do we^{18,19}, e.g the **stereotype threat** as when students are told their skills are insufficient, they perform worse than if told their skills are good.

Oops, I'm biased too

A recent and painful realization of mine. Test yourself at <https://implicit.harvard.edu/implicit/>

[Why care?

Fairness or funding?

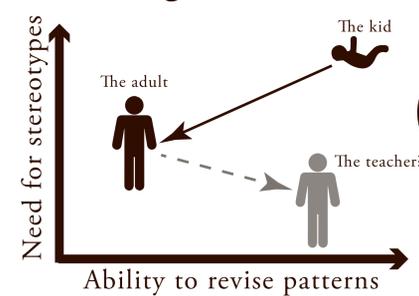
harvest brainpower to save the world?

To improve students' performance & **potential** to better manage an exciting and rewarding career?]

OK then, what can I do?

To teach in a gender aware way for the balanced and efficient learning. And to increase the chance of making **new** connections, revelations and **science**?

Evolving further...



In class:

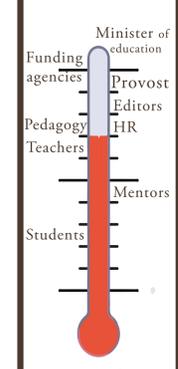
- * Anonymous exams ●
- * Consider pictures and assumptions in slides & textbooks ●
- * Groupwork management to avoid stereotypic team roles ●
- * Managing airtime in class ●
- * Develop a respectful arena²⁰ ●
- * Identify implicit biases with students ●
- * Discuss barriers and behaviour ●
- * Consider non-verbal feedback ●
- * Consider what pronouns we use ●

Within academia:

- * Talent management:
 - PhD mentorship programs with mentoring bias awareness ●
 - Coaching and career development for Postdocs ●
 - Awareness policy decision at universities and funding agencies ●
- * Sensitivity training for staff and lecturers ●
- * Broad and anonymous recruitment procedures ●
- * Double-blind peer review procedures (e.g. optional at Nature) ●

Easier than peeling a banana (●), holding a scorpion (●), building a cello (●)

Who can do the most?



The **quality of leadership** decides the competitiveness

I dare SDU to implement talent management & gender aware actions - and the leaves will grow back. A cheap investment for elevated student numbers, increased external funding, reputation, happy people & better chances for a sustainable future.

LTP Poster session 9th of Dec 2015



References

1. Ambady N, Shih M, Kim A, & Pitinsky TL (2001) Stereotype Susceptibility in Children: Effects of Identity Activation on Quantitative Performance. *Psychological Science* 12(5):385-390.
2. Spencer SJ, Steele CM, & Quinn DM (1999) Stereotype threat and women's math performance. *Journal of experimental social psychology* 35(1):4-28.
3. MacNeil L, Driscoll A, & Hunt AN (2014) What's in a name: exposing gender bias in student ratings of teaching. *Innovative Higher Education*:1-13.
4. Lavy V (2004) Performance pay and teachers' effort, productivity and grading ethics. (National Bureau of Economic Research).
5. Fleming ND, Brown S, & Glasner A (1999) Biases in marking students' written work: quality, assessment matters in higher education: choosing and using diverse approaches 83-92.
6. Breda T & Ly ST (2014) Professors in core science fields are biased in favor of women: evidence from France.
7. Kaatz A, Gutierrez B, & Carnes M (2014) Threats to objectivity in peer review: the case of gender. *Trends Pharmacol. Sci.* 35(8):371-373.
8. Wemmers C & Wolf A (1997) Nepotism and sexism in peer-review. *Nature* 387(6631):341-343.
9. Vetenskapsrådet (2012) Jämställdhetsombudens rapport 2011. Vetenskapsrådets lilla rapportserie 3.
10. Mutz R, Bornmann L, & Daniel H-D (2015) Does Gender Matter in Grant Peer Review? *Zeitschrift für Psychologie*.
11. Budden AE, et al. (2008) Double-blind review favours increased representation of female authors. *Trends Ecol. Evol.* 23(1):4-6.
12. Fiedell LS (1970) Empirical verification of sex discrimination in hiring practices in psychology. *American Psychologist* 25(12):1094.
13. Moss-Racusin CA, Dovidio JF, Brescoll VL, Graham MJ, & Handelman J (2012) Science faculty's subtle gender biases favor male students. *Proc. Natl. Acad. Sci.* 109(41):16774-16779.
14. Norton MI, Vandello JA, & Darley JM (2004) Casuality and social category bias. *Journal of personality and social psychology* 87(6):817.
15. Uhlmann EL & Cohen GL (2005) Constructed criteria redefining merit to justify discrimination. *Psychological Science* 16(6):474-480.
16. Lincoln AE, Pincus SH, & Leboy PS (2011) Scholars' awards go mainly to men. *Nature* 469(7331):472-472.
17. Goldin C & Rouse C (1997) Orchestrating impartiality: The impact of "blind" auditions on female musicians. (National bureau of economic research).
18. Steele CM & Aronson J (1995) Stereotype threat and the intellectual test performance of African Americans. *Journal of personality and social psychology* 69(5):797.
19. Fine C (2010) Delusions of gender: How our minds, society, and neurosexism create difference (WW Norton & Company).
20. Hare W (2009) *Socratic open-mindedness*. *Paideusis* 18(1):5-16.
21. An ambition more often interpreted as inappropriate if expressed by a woman than by a man, see Babcock L & Laschever S (2009) *Women don't ask: Negotiation and the gender divide* (Princeton University Press).