Stereotype Threat

Minorities in a group are conscious of (and anxious about): (i) their status; (ii) stereotypes of that minority; (iii) the need to overcome that stereotype; (iv) the need to combat it as a representative of their minority

See Steele, Spencer, Aaronson, Quinn...

• In sports
  - black/white athletes hit more/less hoops when reminded of race

• In math tests
  - women do worse when reminded of their gender prior to the test (merely recording their gender, or having male instead of female proctors)

  ➔ an explanation for the 15% gap between women and men’s performance on the Physics GRE?

  - asians do better when reminded of their race
Unconscious Bias

Weneras & Wold (1997) commentary in Nature:

- looked at prestigious postdocs awarded in 1995 by the Swedish Medical Research council
  - 52/62 female/male applicants, 4/16 female/male awards. Why?
  - applications peer-reviewed, each application assigned score (0-4) for “scientific competence”,
  - women scored systematically lower than men in all three, particularly for “scientific competence”

- to objectively evaluate a scientists “impact” on the field
  - authors assigned their own score from number of publication, number of 1st author publications, citations for each, and taking account prestige of journal
**Unconscious Bias**

- Only the group of women with impact scores greater than 100 were peer-reviewed to be as competent as any of the groups of men.

- Note: no error bars on plot BUT differences must be significant otherwise you would have 50/50 success rate.

→ question your own evaluation of any scientist’s “competence”
Unconscious Bias

• Biases in evaluation
  - Moving to “blind” auditions for orchestras increased percentage of women’s chances of getting beyond first round by 50%
  - Evaluators gave systematically lower job performance scores to women if under time pressure (Martell, 1991)
    ➡️ reviewers of applicants to grad school/postdocs/faculty should spend at least 5 minutes on every application
  - Asked to assign success at a task due to “luck” or “skill” more women than men were systematically judged by both women and men to be “lucky” (Deaux & Emswiller, 1974)
    ➡️ reviewers should question their own evaluation of a candidate
    ➡️ reviewers should question any letter-writer’s evaluation
Unconscious Bias

- Biases in selection
  - A study of front covers of Time Magazine found that when one person was chosen to represent a topic, it was invariably the stereotype, but if many were chosen there was usually diversity (Valerie Purdie - Yale)

  Move as much as possible to “cluster-hiring”, rather than the traditional mode of filling one-job-at-a-time. Even hiring 2 people at once makes a difference.
Unconscious Bias

- A study comparing recommendations by both women and men (Trix & Psenka, 2003) for 300 successful applicants to a medical school found letters written for women candidates were shorter, raised more doubts, and talked about them as teachers/students rather than researchers/professionals.

  ➡️ Writers should carefully review their own letters for these characteristics.
  ➡️ Reviewers should question their own evaluation of a candidate.
  ➡️ Reviewers should question any letter-writer’s evaluation.
Unconscious Bias

• A study comparing evaluations by both women and men of a resume randomly assigned a male/female name found
  - both men and women rated the resume lower if it was from a woman (Steinpreis, Anders & Ritzke, 1999).
  
  ➡️ reviewers should question their own evaluation of a candidate
  - the effect is increased if there are fewer women in the pool (Heilman, 1980)

  ➡️ search committees should ensure their applicant pool and their short list is diverse as possible - interview at least 2 women!