Reviewing Applicants:
Understanding and minimizing the potential influence of bias and assumptions.

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Overview

• What is “unconscious bias”? 
• How might unconscious biases influence the search process? 
• How can a search committee overcome such influences?
What is unconscious bias?

- A substantial body of evidence demonstrates that most people – men and women – hold unconscious biases about groups of people.
- Depending on the discipline unconscious biases can also be referred to as:
  - Schemas
  - Stereotypes
  - Mental models
  - Cognitive shortcuts
  - Statistical discrimination
  - Implicit associations
  - Spontaneous trait inference

The tendency of our minds to apply characteristics of groups (real or imagined) to our judgments about individual group members.
What is unconscious bias?

• Most of us intend to be fair and believe that we are fair.
• Still, most of us routinely rely on unconscious assumptions.
• Human brain works by categorizing people, objects and events around us -- this allows us to quickly and efficiently organize and retrieve information.

To avoid relying on assumptions about groups (right or wrong) when evaluating individuals – we must become aware of our tendency to do so.
How is the research on bias and prejudice conducted?

- **Blind, randomized trials**
  - Give each group of evaluators pictures, words, or applications with a racial or gender indicator
  - Isolate gender, race, or ethnicity as sole variable
  - Compare evaluations

- **Real life studies**
  - Evaluate actual resumés/curriculum vitae, job performance, letters of recommendations, etc.
Examples of Blind, Randomized Trials

• When shown photographs of people who are the same height, evaluators overestimated the heights of male subjects and underestimated the heights of female subjects. Biernat et al., 1991

• When asked to rate the quality of verbal skills indicated by a short text, evaluators rated the skills lower if they were told an African American wrote the text than if a they were told a white person wrote it, and rated verbal skills higher when told that a woman wrote it than when told a man wrote it. Biernat and Manis, 1995
Lessons to be Learned

• We often apply generalizations about groups to our evaluation of individuals

• The generalizations we apply may be accurate – eg. men, on average, are taller than women – but we can and do apply them inaccurately to individual members of a group

• We can apply generalizations that may not be accurate
Examples of Real Life Studies

Swedish Postdoc Fellowship Study
*Wenneras and Wold, Nature, 1997*

- Reviewed 114 applications for prestigious research postdocs to Swedish MRC (52 women)
- Compared Reviewers’ “competency rating” scores to a standardized metric derived from publication record (impact points)
- MRC reviewers consistently gave women lower competency ratings than men and lower than predicted by impact points.
- Males competency ratings increased with their publication record – women’s competency ratings did not
- To even the score, women needed the equivalent of 3 extra papers in a prestigious journal like Science or Nature

The graph shows the competence score of men and women across different total impact points categories (0-19, 20-39, 40-59, 60-99, >99). The competence score increases with higher total impact points, with men generally having a higher score compared to women across all categories.
Examples of Real Life Studies

Evaluation of Curriculum Vitae

Steinpreis et al., Sex Roles 41: 509 1999

• Curriculum vitae of an actual applicant sent to 238 academic psychologists (118 male, 120 female)
  o One cv – at time of job application (jr-level)
  o One cv – at time of early tenure (sr-level)

• Randomly assigned a male or female name to each cv
Examples of Real Life Studies

Evaluation of Curriculum Vitae (Cont.)
Steinpreis et al., Sex Roles 41: 509 1999

• For entry-level cv -- Academic psychologists were more likely to hire male applicants and gave men higher ratings for
  o Teaching
  o Research
  o Service Experience

• For tenure-level cv – Academic psychologists were equally likely to tenure men and women candidates --- but were four-times more likely to include cautionary comments on cv’s with a female name.
Examples of Real Life Studies

Analysis of Letters of Recommendation
Trix and Psenka, Discourse & Soc 14:191 2003

• 312 letters of recommendation for medical faculty **successfully hired** at large U.S. medical school
• Letters for women vs men:
  o Shorter
  o More letters for women with “minimal assurance”
  o More gendered terms in letters for women
  o More letters for women included “doubt raisers”
  o Men more frequently referred to as “researchers” and “colleagues”. Women more frequently referred to as “teachers” and “students”
  o Women – 4X more references to personal lives
  o Women - Fewer standout adjectives (“outstanding” “excellent”) and more grindstone adjectives.
Examples of Real Life Studies

Evaluation of Resumés
Bertrand and Sendhil, 2004

- Resumes sent to a variety of employers advertising openings in local newspapers in Chicago and Boston
- Randomly assigned “white-sounding” or “African American-sounding” names to resumes
- Applicants with “white-sounding” names were more likely to be called back to interview for positions.
- For “white-sounding” names, applicants with better qualifications were more likely to be called back. For “African American-sounding” names, applicants with better qualifications were not more likely to be called back.
Examples of Real Life Studies

- Students wearing baseball caps apply for retail positions in a local shopping mall.
- Unknown to students – caps randomly labeled “Texan – and proud” or “Gay – and proud.”
- Students “identified” as “gay” reported being less confident about getting a position and being treated in less friendly manners.

Hebl, et al. 2002
Overcoming Bias and Assumptions

- “Blinding” the evaluation process Golden, 1996
- Instructing evaluators to try to avoid prejudice/bias Blair and Banajieilman, 1996
- Critical Mass Heilman, 1980
- Developing and prioritizing criteria prior to evaluation Uhlmann and Cohen, 2005
- Time and Attention given to evaluation Martell, 1991
- Type of Decision-making used Hugenberg et al., 2006
**Minimizing Bias and Assumptions:**
Interventions in at least one randomized, controlled study that mitigate bias in evaluation

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Example of study</th>
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<tbody>
<tr>
<td>At least 25% women in the pool being evaluated</td>
<td>Heilman ME. <em>Organ Behav Hum Perf</em> 1980; 26: 386-395, 1980</td>
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Minimizing Bias and Assumptions (Cont):
Interventions in at least one randomized, controlled study
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<td>Establishing the value of credentials before any applicant is seen to avoid “redefining” merit</td>
<td>Uhlmann and Cohen, Amer Psychol Assoc 16:474-480, 2005</td>
</tr>
</tbody>
</table>
References

All references listed on the brochure:
“Reviewing Applicants: Research on Bias and Assumptions”
and on
http://wiseli.engr.wisc.edu/initiatives/hiring/BrochureReferences.pdf

Except for:
