Evaluating Faculty Candidates: Understanding and minimizing the influence of unconscious bias

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About WISELI

- WISELI – Women in Science and Engineering Leadership Institute
  - Research institute at the University of Wisconsin-Madison
  - Mission: Advancing and promoting women in academic Science, Technology, Mathematics and Medicine (STEMM) – focus on faculty
  - Broader goals – fostering a diverse faculty body
  - Funding: NSF ADVANCE, NIH, Campus support
Introduction

Searching for Excellence & Diversity®:
Workshops for Search Committee

Guiding Principles

- Research Based
- Peer Training
- Active Learning
- Accountability

Content

1. Run an effective and efficient search committee
2. Actively recruit an excellent and diverse applicant pool
3. Raise awareness of unconscious bias and assumptions and their influence on evaluation of candidates
4. Ensure a fair and thorough review of candidates
5. Develop and implement an effective interview process

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Introduction: Benefits of Diversity

- Diverse working groups are more productive, creative and innovative than homogeneous groups
Introduction: Benefits of Diversity

- Diverse groups engage in a higher level of critical analysis than do homogenous groups
  
Introduction: Benefits of Diversity

- Diverse scholars and professionals can invigorate and expand disciplines and fields
  - New approaches to teaching
  - New research questions
  - New perspectives and interpretations
  - New concerns
Introduction: Commitment vs. Results

- Despite broad commitment to the goal of diversity, why are results less than satisfactory
  - Lack of training/education on the hiring process
  - Influence of unconscious bias and assumptions
Introduction

Why provide education for search committees?

- Provides an opportunity to achieve campus goals of diversifying the faculty
- Faculty members receive little education about the search process
- A faculty search is costly (time and money)
Introduction

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Overview

1. What is “unconscious bias”?
2. How might unconscious biases influence evaluation of faculty candidates?
3. How can a search committee minimize the influence of bias?
4. Does educating search committees work?
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 judge individuals by the characteristics (real or imagined) of the groups to which they belong.
What is unconscious bias?

- Most of us routinely rely on unconscious assumptions even though we intend to be fair and believe that we are fair.

- Human brain works by categorizing people, objects and events around us -- this allows us to quickly and efficiently organize and retrieve information.
How is the research on bias conducted?

- **Blind, randomized trials**
  - Give each group of evaluators pictures, words, or applications with a racial or gender indicator
  - Compare evaluations

- **Real life studies**
  - Evaluate actual resumés/curriculum vitae, job performance, letters of recommendations, call backs for interviews, etc.
Examples of Research on Unconscious Bias


- 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. (1994). “Shifting Standards and Stereotype-based Judgments.” *J Pers & Soc Pyschol* 66: 5-20.
Unconscious bias in the search process

- Applications/CVs/Résumés
- Reference Letters
- Interviews/Evaluation of Leadership
Unconscious Bias in the Search Process

Evaluation of Curriculum Vitae


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

- Randomly assigned a male or female name to each cv (Karen Miller or Brian Miller)
Unconscious Bias in the Search Process

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
  - Teaching
  - Research
  - 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.
Unconscious Bias in the Search Process

Evaluation of Resumés


- 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.
Analysis of Letters of Recommendation


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

Multiple authors over 30 years: e.g., Bem, Broverman, Eagly, Heilman Rudman

**DESCRIPTIVE**: How men and women behave

- **Men (agentic)**
  - Strong
  - Decisive
  - Assertive
  - Tough
  - Authoritative
  - Independent

- **Women (communal)**
  - Nurturing
  - Communal
  - Nice
  - Supportive
  - Helpful
  - Sympathetic

**PREScriptive**: How men and women “ought” to behave

Note: Social Penalties for Violating Gender Norms
Evaluation of Job Interviews

- Taped agentic and communal male and female candidates interviewing for a leadership position in a male dominated field.

- 428 evaluators (approx. 50% women) viewed the taped interviewers and rated the “candidates” on competence, likeability, and hireability.
Evaluation of Job Interviews

RESULTS:
- No differences by sex of evaluator

Competence:
- Agentic interviewees rated more competent than communal interviewees

Likeability:
- When interviewee was “agentic” – males rated as more socially skilled than females.
- When interviewee was “communal” – males rated as less socially skilled than females (new finding – prev. studies found no differences)
Hireability

- Agentic interviewees more hireable than communal – consistent with evaluation of agentic interviewees as more competent than communal interviewees.
- Agentic men more hireable than agentic women – despite equivalent ratings of competence
- Communal men and women – no difference in hireability
- Regression analysis showed that evaluators weighed competence more heavily than social skills for all applicants except agentic women.
- For agentic women, social skills were given more weight. Their strength (competence) was devalued and their perceived weakness emphasized. This is an example of Shifting Criteria.
Other Examples

- **Gender Stereotypes & Leadership**

- **Motherhood Bias**

- **Sexual Orientation**
Reviewing Applicants
Research on Bias and Assumptions

http://wiseli.engr.wisc.edu/docs/BiasBrochure_2ndEd.pdf

Searching for Excellence & Diversity
A Guide for Search Committee Chairs

“We need diversity in discipline, intellectual outlook, cognitive style, and personality to offer students the breadth of ideas that constitutes a dynamic intellectual community.”

http://wiseli.engr.wisc.edu/docs/SearchBook.pdf
Unconscious Bias in the Search Process

Case Study Discussion
Minimizing Bias and Assumptions

What Not to Do:

- Suppress bias and assumptions from one’s mind (or try to)
  - Studies demonstrating Stereotype Rebound effect
  
- Relying solely on a presumably “objective” ranking or rating system to reduce bias
Minimizing Bias and Assumptions

What to do before conducting evaluations:

- Replace your self-image as an objective person with recognition and acceptance that you are subject to the influence of bias and assumptions

- Diversify your search committee
  - Social tuning/increased motivation to respond w/o bias
  - Counterstereotype imaging
    Blair, Ma, and Lenton, *J. Personality and Social Psychology*, 2001

- Critical Mass – increase proportion of women and minorities in the applicant pool
  Heilman, *Organizational Behavior and Human Performance*, 1980; van Ommeren et al., *Psychological Reports*, 2005

- Develop and prioritize criteria prior to evaluating applicants
Minimizing Bias and Assumptions

What to do while conducting evaluations:

- Spend sufficient time and attention on evaluating each application

- Focus on each applicant as an individual and evaluate their entire application package – information minimizes bias

- Use inclusion rather than exclusion decision-making processes
  Hugenberg et al., J. Personality and Social Psychology, 2006

- Stop periodically to evaluate your criteria and their application

- Accountability - Be able to defend every decision
  - **Competence:** Biernat and Fuegen, Journal of Social Issues, 2001
  - **Equity:** Dobbs and Crano, Personality and Social Psychology Bulletin, 2001
Is it working?

- Faculty attendance/experience of workshop
- Changing outcomes
- Unexpected outcomes
Attendance at Hiring Workshops

Number of Participants

2004 2005 2006 2007 2008 2009 2010 2011
Experience of Workshop

Usefulness Ratings* of 5 Workshop Elements

* Not at all useful, Somewhat useful, Very useful
Experience of workshop

Workshop "Very Useful"*

* Vs. Somewhat useful or Not at all useful.
Changing outcomes

- Hiring pools, interview lists
  - No data
- New hires
- Experience of candidates
Percent Female, Tenure-Track Faculty Offers
Biological & Physical Sciences

<table>
<thead>
<tr>
<th>Departments</th>
<th>2003-2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>22/100</td>
<td>21/58</td>
</tr>
<tr>
<td>Non-Participating</td>
<td>26/72</td>
<td>7/27</td>
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Experience of Candidates

New Hires' Satisfaction* With the Hiring Process
Biological & Physical Sciences

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<tr>
<th></th>
<th>Participating Departments</th>
<th>Non-Participating Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2003 Survey)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Hires 2003-2005</td>
<td>28/45</td>
<td>19/44</td>
</tr>
<tr>
<td>(2006 Survey)</td>
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* Agree Strongly to the item "I was satisfied with the hiring process overall."

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Unexpected outcomes

- Changing attitudes towards diversity
The climate for faculty of color in my department is good

* Significant t-test between minority and majority faculty at $p < .05$.

^ Significant t-test between dept. chairs and all other faculty at $p < .05$. 
The climate for faculty of color in my department is good

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<thead>
<tr>
<th></th>
<th>2003</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated in Hiring Workshop</td>
<td>80.0%</td>
<td>70.0%</td>
</tr>
<tr>
<td>No Hiring Workshop Participation</td>
<td>80.0%</td>
<td>80.0%</td>
</tr>
</tbody>
</table>
Relevant Publications

- Sheridan, Jennifer; Eve Fine; Christine Maidl Pribbenow; Jo Handelsman; Molly Carnes. 2010. “Searching for Excellence & Diversity: Increasing the Hiring of Women Faculty at One Academic Medical Center.” Academic Medicine. 85(6):999-1007.


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