Reviewing Job Applicants – Understanding and Minimizing Bias in Evaluation

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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
About WISELI

- Molly Carnes, MD, MS;
  Co-Director
  Professor, Depts. of Medicine, Psychiatry, and Industrial & Systems
  Engineering
  Director, Center for Women’s Health Research
- Amy Wendt, PhD;
  Co-Director
  Professors Dept. of Electrical and Computer Engineering
- Jennifer Sheridan, PhD;
  Executive and Research Director
- Eve Fine, PhD;
  Research and Director of Curriculum Development and
  Implementation
- Christine Pribbenow, PhD;
  Evaluation Director

Introduction

Searching for Excellence & Diversity®:
Workshops for Search Committee

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
6. Close the deal – successfully hire selected candidate
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Discussion

What does diversity mean in your department?
Why do you think it is important to develop a diverse faculty?
Introduction: Benefits of Diversity

- Diverse working groups are more productive, creative and innovative than homogeneous groups

- 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 are less than satisfactory
  - Lack of training/education on the hiring process
  - Influence of unconscious bias and assumptions
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What is unconscious bias?

- A substantial body of evidence demonstrates that most people 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
  - System 1 thinking

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 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.
- But – when evaluating people we can be led astray by our tendency to categorize people – and we tend to do so on the following dimensions:
  - Race/Ethnicity, Sex, and Age.

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
  - 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

- **Estimating height**

- **Judging Athleticism**

- **Evaluating Verbal skills**
  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).

Unconscious bias in the search process

- Applications/CVs/Résumés
- Reference Letters
- Job interviews
### Evaluation of Curriculum Vitae and Résumés

#### Curriculum vitae for positions in academic psychology


- 238 academic psychologists (118 male, 120 female) evaluated an actual cv randomly assigned a male or female name (Karen or Brian Miller).
  - One cv – at time of job application (jr-level)
  - One cv – at time of early tenure (sr-level)

- Entry level – academic psychologists move likely to hire male applicants and gave men higher ratings for:
  - Research
  - Teaching
  - Service

- Senior-level - 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

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#### Evaluation of Curriculum Vitae and Résumés

#### Applications for lab manager


- 127 science faculty (men and women) rated application materials for an entry level position as a lab manager; applications randomly assigned a male or female name.

- Rated male applicant as more competent and hireable than the female applicant.

- Selected a higher starting salary for the male applicant.

- Reported more willingness to offer career mentoring to the male applicant.
Evaluating résumés with African American- or white-sounding names


- 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 résumés.
- Applicants with “white-sounding” names were 50% more likely to be called back to interview for positions.
- For “white-sounding” names, applicants with better qualifications were 27% more likely to be called back. For “African American-sounding names,” applicants with better qualifications were only 8%* more likely to be called back.

* Not statistically significant
Evaluation of Curriculum Vitae and Résumés

Additional examples

- **Motherhood Bias**

- **Career Gaps for Men**

- **Sexual Orientation**

- **Arabic sounding-names**
  Compared call back for job interviews for applicants with Arabic- or Dutch-sounding names

  Compared call backs for job interviews for applicants with Arabic- or Swedish-sounding names

  Compared call backs for job interviews for applicants with white or Arabic-sounding names in the U.S.
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*.

Letters of Recommendation


Found fewer differences between letters for men and women in comparison to the Trix and Psenka study, but reaffirmed the comparative absence of outstanding adjectives in letters for women.
Evaluation of Job Interviews

Interviews for a leadership position


- Videotaped interviews of actors (male and female) performing an agentic or communal script.
- **Agentic characteristics:**
  Decisive, competitive, ambitious, independent, willing to take risks (often male-assumed characteristics)
- **Communal characteristics:**
  Nurturing, gentle, supportive, sympathetic, dependent (often female-assumed characteristics)

Interviews for a leadership position (cont.)

- Stereotypes/assumptions about leaders align more closely with agentic characteristics
- Social penalties may apply to men and women who violate gender-based behavioral norms/expectations.
- What happened when evaluators (428, approx. 50% women) viewed the taped interviewers and rated the “candidates” on?
  - Competence
  - Likeability
  - 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 likeable or socially skilled than females.
- When interviewee was “communal” – males rated as less likeable or socially skilled than females (new finding – prev. studies found no differences)

Demonstrates the penalty for men and women who violate gender norms.

Hireability

- Agentic vs. Communal: Agentic interviewees more hireable than communal – consistent with evaluation of agentic interviewees as more competent than communal interviewees.

- Gender Differences:
  - Communal men and women – no difference in hireability
  - Agentic men more hireable than agentic women – despite equivalent ratings of competence

- Regression analysis showed that evaluators weighed competence more heavily than likeability for all applicants except agentic women.

- For agentic women, likeability was given more weight. Their strength (competence) was devalued and their perceived weakness emphasized. This is an example of Shifting Criteria.
Other “In-person” Evaluations
Evaluating résumés with minority- or white-sounding names

- Applicants applied in-person for a variety of low-wage, entry-level jobs advertised in major city newspapers in Milwaukee and New York.
- Milwaukee: 8 black and white pair-matched testers applied to 350 employers (black and white testers applied to different employers)
- New York: 10 black, white, and Latino testers applied to the same set of 340 employers
- White applicants received approx. 50% more job offers or call backs for a 2nd interview than black applicants in both cities. In NY, white applicants received approx. 20% more job offers/call backs than Latinos.

Fig. 1. Percent of applicants receiving a callback or job offer, by race.
Job Interviews - Other Examples

- **Sexual Orientation**

- **Accented English**

- **Weight**

- **Pregnancy**

- **Disability**

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

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Minimizing Bias and Assumptions

What to do before conducting evaluations:

- Develop and prioritize criteria prior to evaluating applicants.

  - What credentials and skills are you seeking?
  - What types of experience will be valued?
  - What application materials and interview questions will enable you to access candidates strengths and weakness in areas such as:
    - Commitment to undergraduate teaching
    - Teaching skills and abilities
    - Experience and ability to work with diverse students and students with different learning styles
    - Scholarly contributions and productivity
  - Which of these criteria (or others) will matter most?
  - How will you evaluate candidates with strengths in some areas/weaknesses in others?
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
  Heilman, Organizational Behavior & Human Performance, 1984; Tosi and
  Einbender, Academy of Management Journal, 1985; Brauer and Er-rafiy, Journal
  of Experimental Social Psychology, 2013.
- 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 and hold each member
  of the search committee responsible for equitably evaluating applicants.
  Foschi, Social Psychology Quarterly, 1996

Minimizing Bias and Assumptions

What to do while conducting evaluations (cont.):

- Accountability: hold each member of the search committee responsible
  for equitably evaluating applicants.

Some examples that should cause you to pause, consider, and raise
questions:

- I couldn’t care less if the person we hire is black, purple, green, polka-dot,
  male female or whatever. All I care about is excellence.
- I know that I am gender-blind and color-blind.
- I’m not sure how well this candidate will fit here (or in this position).
- I think he/she is just too soft-spoken for a leadership position.
- She struck me as too aggressive.
- I’m not sure why, but I don’t really like this candidate … something just rubs
  me the wrong way.
- Is this candidate sufficiently mature? or … past his prime?
- Will we have a partner hire issue to contend with?
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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