

# Reviewing Applicants

Research on  
Bias and Assumptions



**W**e all like to think that we are objective scholars who judge people solely on their credentials and achievements, but copious research shows that every one of us has a lifetime of experience and cultural history that shapes the review process.

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***“To evaluate other people more accurately we need to challenge our implicit hypotheses ... we need to become explicitly aware of them.”***

VIRGINIA VALIAN

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The results from controlled research studies demonstrate that people often hold implicit or unconscious assumptions that influence their judgments. Examples range from expectations or assumptions about physical or social characteristics associated with race, gender, and ethnicity to those associated with certain job descriptions, academic institutions, and fields of study.

It is important to note that in most studies examining evaluation and gender, ***the sex of the evaluator was not significant; both men and women share and apply the same assumptions about gender.***

Recognizing biases and other influences not related to the quality of candidates can help reduce their impact on your search and review of candidates.

### **Examples of common social assumptions or expectations:**

- When shown photographs of people of the same height, evaluators overestimated the heights of male subjects and underestimated the heights of female subjects, even though a reference point, such as a doorway, was provided (Biernat et al.).

- When shown photographs of men with similar athletic abilities, evaluators rated the athletic ability of African American men higher than that of white men (Biernat and Manis).
- When asked to choose counselors from among a group of equally competent applicants who were neither exceptionally qualified nor unqualified for the position, students more often chose white candidates than African American candidates, indicating their willingness to give members of the majority group the benefit of the doubt (Dovidio and Gaertner).

These studies show that we often apply generalizations that may or may not be valid to the evaluation of individuals (Bielby and Baron). In the study on height, evaluators applied the statistically accurate generalization that on average men are taller than women to their estimates of the height of individuals who did not necessarily conform to the generalization. If generalizations can lead us to inaccurately evaluate characteristics as objective and easily measured as height, what happens when the qualities we are evaluating are not as objective or as easily measured? What happens when the generalizations are not accurate?

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***“Even the most well-intentioned person unwittingly allows unconscious thoughts and feelings to influence apparently objective decisions.”***

MAHZARIN R. BANAJI

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## **Examples of assumptions or biases that can influence the evaluation of applications:**

- When rating the quality of verbal skills as indicated by vocabulary definitions, evaluators rated the skills lower if they were told an African American provided the definitions than if they were told that a white person provided them (Biernat and Manis).
- Randomly assigning different names to résumés showed that job applicants with “white-sounding names” were more likely to be interviewed for open positions than were equally qualified applicants with “African American-sounding names” (Bertrand and Sendhil).

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***“To respond without prejudice ... an individual must overcome years of exposure to biased and stereotypical information.”***

PATRICIA DEVINE ET AL.

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- When symphony orchestras adopted “blind” auditions by using a screen to conceal candidates’ identities, the hiring of women musicians increased. Blind auditions fostered impartiality by preventing assumptions that women musicians have “smaller techniques” and produce “poorer sound” from influencing evaluation (Goldin and Rouse).
- Research shows that incongruities between perceptions of female gender roles and leadership roles cause evaluators to assume that women will be less competent leaders. When women leaders provide clear evidence of their competence, thus violating traditional gender norms, evaluators perceive them to be less likeable and are less likely to recommend them for hiring or promotion (Eagly and Karau; Ridgeway; Heilman et al.).

## **Examples of assumptions or biases in academic job-related contexts:**

- A study of over 300 recommendation letters for medical faculty hired by a large U.S. medical school found that letters for female applicants differed systematically from those for males. Letters written for women were shorter, provided “minimal assurance” rather than solid recommendation, raised more doubts, portrayed women as students and teachers while portraying men as researchers and professionals, and more frequently mentioned women’s personal lives (Trix and Psenka).
- In a national study, 238 academic psychologists (118 male, 120 female) evaluated a curriculum vitae randomly assigned a male or a female name. Both male and female participants gave the male applicant better evaluations for teaching, research, and service experience and were more likely to hire the male than the female applicant (Steinpreis et al.).
- A study of postdoctoral fellowships awarded by the Medical Research Council of Sweden found that women candidates needed substantially more publications to achieve the same rating as men, unless they personally knew someone on the panel (Wennerås and Wold).

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***When we assume “that cultural, racial, ethnic, and gender biases are simply nonexistent [in] screening and evaluation processes, there is grave danger that minority and female candidates will be rejected.”***

CAROLINE S.V. TURNER

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## Advice for minimizing the influence of bias and assumptions:

- **Strive to increase the representation of women and minorities in your applicant pool.**  
Research shows that gender assumptions are more likely to negatively influence evaluation of women when they represent a small proportion (less than 25%) of the pool of candidates (Heilman).
- **Learn about and discuss research on biases and assumptions and consciously strive to minimize their influence on your evaluation.**  
Experimental studies show that greater awareness of discrepancies between the ideals of impartiality and actual performance, together with strong internal motivations to respond without prejudice, effectively reduces prejudicial behavior (Devine et al.).
- **Develop evaluation criteria prior to evaluating candidates and apply them consistently to all applicants.**  
Research shows that different standards may be used to evaluate male and female applicants and that when criteria are not clearly articulated before reviewing candidates evaluators may shift or emphasize criteria that favor candidates from well-represented demographic groups (Biernat and Fuegen; Uhlmann and Cohen).
- **Spend sufficient time (at least 20 minutes) evaluating each applicant.**  
Evaluators who were busy, distracted by other tasks, and under time pressure gave women lower ratings than men for the same written evaluation of job performance. Sex bias decreased when they were able to give all their time and attention to their judgments, which rarely occurs in actual work settings (Martell).
- **Evaluate each candidate's entire application; don't depend too heavily on only one element such as the letters of recommendation, or the prestige of the degree-granting institution or post-doctoral program.**  
Recall the study showing significant patterns of difference in letters of recommendation for male and female applicants (Trix and Psenka).

- **Be able to defend every decision for eliminating or advancing a candidate.**  
Research shows that holding evaluators to high standards of accountability for the fairness of their evaluation reduces the influence of bias and assumptions (Foschi).
- **Periodically evaluate your judgments, determine whether qualified women and underrepresented minorities are included in your pool, and consider whether evaluation biases and assumptions are influencing your decisions by asking yourself the following questions:**
  - ❑ Are women and minority candidates subject to different expectations in areas such as numbers of publications, name recognition, or personal acquaintance with a committee member? (*Recall the example of the Swedish Medical Research Council.*)
  - ❑ Are candidates from institutions other than the major research universities that have trained most of our faculty being undervalued? (*Qualified candidates from institutions such as historically black universities, four-year colleges, government, or industry, might offer innovative, diverse, and valuable perspectives on research and teaching.*)
  - ❑ Have the accomplishments, ideas, and findings of women or minority candidates been undervalued or unfairly attributed to a research director or collaborators despite contrary evidence in publications or letters of reference? (*Recall the biases seen in evaluations of written descriptions of job performance.*)
  - ❑ Is the ability of women or minorities to run a research group, raise funds, and supervise students and staff of different gender or ethnicity being underestimated? (*Recall social assumptions about leadership abilities.*)
  - ❑ Are assumptions about possible family responsibilities and their effect on a candidate's career path negatively influencing evaluation of a candidate's merit, despite evidence of productivity? (*Recall studies of the influence of generalizations on evaluation.*)
  - ❑ Are negative assumptions about whether women or minority candidates will "fit in" to the existing environment influencing evaluation? (*Recall students' choice of counselor.*)

## REFERENCES:

- M.R. Banaji et al., *Harvard Business Review* **81**(2003).
- M. Bertrand, M. Sendhil, *American Economic Review* **94**(2004).
- W.T. Bielby, J.N. Baron, *American Journal of Sociology* **91**(1986).
- M. Biernat et al., *Journal of Personality and Social Psychology* **60**(1991).
- M. Biernat, M. Manis, *Journal of Personality and Social Psychology* **66**(1994).
- M. Biernat, K. Fuegen, *Journal of Social Issues* **57**(2001).
- P. Devine et al., *Journal of Personality and Social Psychology* **82**(2002).
- J.F. Dovidio, S.L. Gaertner, *Psychological Science* **11**(2000).
- A.H. Eagly, S.J. Karau, *Psychological Review* **109**(2002).
- M. Foschi, *Social Psychology Quarterly* **59**(1996).
- C. Goldin, C. Rouse, *American Economic Review* **90**(2000).
- M.E. Heilman, *Organizational Behavior and Human Performance* **26**(1980).
- M.E. Heilman et al., *Journal of Applied Psychology* **89**(2004).
- R.F. Martell, *Journal of Applied Social Psychology* **21**(1991).
- C.L. Ridgeway, *Journal of Social Issues* **57**(2001).
- R. Steinpreis et al., *Sex Roles* **41**(1999).
- F. Trix, C. Psenka, *Discourse & Society* **14**(2003).
- C.S.V. Turner, *Diversifying the Faculty: A Guidebook for Search Committees* (Washington, DC: AACU, 2002).
- E.L. Uhlmann, G.L. Cohen, *Psychological Science* **16**(2005).
- V. Valian, *Why So Slow? The Advancement of Women* (Cambridge, MA: MIT Press, 1999).
- C. Wennerås, A. Wold, *Nature* **387**(1997).
- For full references please see: <http://wiseli.engr.wisc.edu/initiatives/hiring/BrochureReferences.pdf>
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