

National Center for Women & Information Technology

PROMISING PRACTICES

How Can Reducing Unconscious Bias Increase Women's Success in IT?

Most organizations make strong efforts to eliminate bias in hiring, promotion, and other aspects of the workplace by implementing fair practices. However, unconscious biases influence decisions and practices in ways that are beneath the surface of our awareness. From birth, we develop “knowledge schemas” that shape our beliefs about people, events, and things. They are based in generalizations or stereotypes rather than information about individuals or specific situations. Knowledge schemas are valuable: they act as mental shortcuts for speedy decisions. But they can also lead to poor choices. A notorious example appears in the Dewey Decimal Classification System for libraries: its religion designation devotes eight of its nine categories to Christianity and combines all other religions into “other.” This classification reflects a 19th century American Christian bias, not how the world at large practices religion.

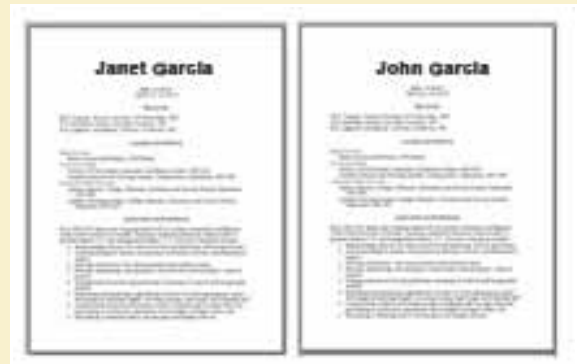
Gender schemas can lead us to judge the same action or outcome differently for women and men. When this happens, it is unconscious gender bias in action. Research shows that we become more aware of one's gender in situations where someone is the only person, or one of only a few, of that gender, as is the case for most women in IT.

In the IT workplace, unconscious gender bias can mislead employers, both male and female, to make inaccurate judgments in hiring, performance reviews, and promotion. Experiments consistently show that women and their work are misperceived as less valuable than men *even when their demonstrated ability is identical*. Women at all levels of IT have to work harder and often violate norms about feminine behavior to build authority and demonstrate belonging. Women in authority positions are especially vulnerable to unconscious bias, perhaps because they are fewer in number than male leaders. Studies show that women more often suffer from unconscious bias when: the number of women in an applicant pool is small; evaluators are under time pressure, fatigued, or needing a quick decision; or when performance criteria are ambiguous.

STUDIES: RESEARCH REVEALS UNCONSCIOUS GENDER BIAS

Since the 1970s, orchestra auditions have been screened so that the musician's gender is hidden from view. Hiding gender increased the probability that women would advance out of preliminary rounds by 50% and increased actual hiring of women musicians by between 25% and 46%.

A study compared evaluations of an identical resume submitted for a faculty position; half the resumes had a male name and half a female name. The judges — 238 psychology professors, *half male and half female* — rated the male applicant higher and were more likely to hire the male than the female. Statistical analysis demonstrated that this finding was best explained by the influence of gender bias on the judges' interpretations of applicants' qualifications.



HOW CAN WE REDUCE UNCONSCIOUS GENDER BIAS ABOUT WOMEN IN IT?

Organizations can raise awareness and control the message; identify the IT-related gender beliefs operating in the organization; make performance standards explicit and clearly communicate them; and hold gatekeepers accountable for gender disparities in assignments, promotions, and salaries.

Individuals can recognize that female colleagues or students are not working under the same conditions as their male colleagues; assume people are innocent and lack awareness, rather than assigning blame; recognize that each of us has biases, identify what those biases are, try to understand the source, and be aware that people even have biases about themselves; and create situations where they can learn more individual information about each other rather than just seeing the other person as a representative of their gender.

RESOURCES

Steinpreis, R.E., Anders, K.A., and Ritzke, D. (1999). The impact of gender on the review of the curricula vitae of job applicants. *Sex Roles*, 41, 509-528.

Take the Implicit Association Test: <https://implicit.harvard.edu>

NCWIT's Supervising-in-a-Box Series, www.ncwit.org/supervising

NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels.

Visit www.ncwit.org/practices to find out more.

ncwit.org Author | Lecia Barker
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Avoiding Unintended Gender Bias in Letters of Recommendation (Case Study 1)

Reducing Unconscious Bias to Increase Women's Success in IT



Undergraduate



Graduate



Career

In an analysis of 300 letters of recommendation for research and clinical faculty positions at a medical school, researchers concluded that recommenders often unconsciously describe candidates in stereotypically gendered ways. Trix and Psenka (2003) found that compared with letters written on behalf of men, letters written about women were shorter and more likely to lack basic features, such as how they knew the applicant, concrete references about the applicant's record, or evaluative comments about the applicant's traits or accomplishments. The researchers also found that descriptions of men were more likely than those of women to be aligned with the critical job requirements: research record and ability.

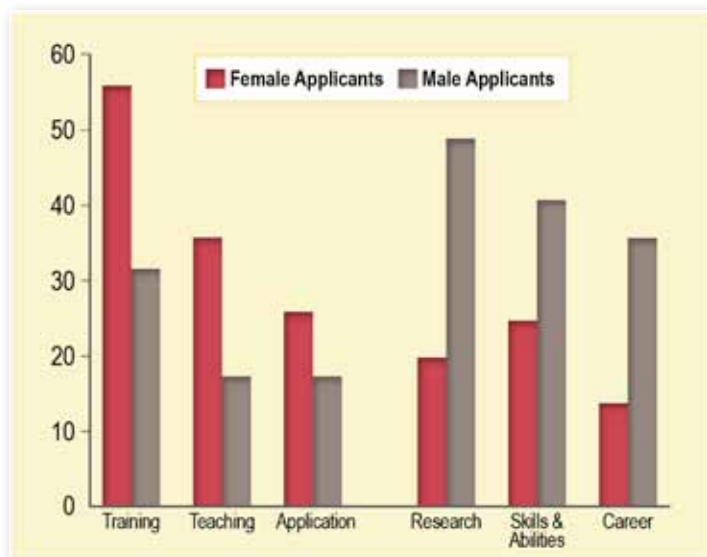
NUANCED, HIDDEN BIASES IN LANGUAGE

Stereotypical and Grindstone Adjectives. Adjectives used to describe both male and female applicants were often based in gender stereotypes: men as successful and women as nurturing. Words like "compassionate" were frequently used for women, while words like "accomplishment" were more often used for men. Grindstone words — adjectives describing applicants as hard workers—were also more often used for women than for men, implying that women may have strong work ethic, but men have ability.

Repetition of Standout Words. Word and phrase repetition leads to cohesion and can be a persuasive rhetorical device. When superlatives and status words (e.g., "outstanding," "research") were used in letters, they were repeated more often in letters describing men than women.

Doubt Raisers. Letters recommending women were twice as likely to include "doubt raisers" (e.g., "it appears that her health is stable"; "while she has not done...") than letters written for men.

Men Research, Women Teach. Letters describing the positive qualities of men more often emphasized their role as researchers and professionals, while letters describing the positive qualities of women more often emphasized teaching. The pronoun "her" was followed by "training," "teaching," or "personal life" much more often than was "his." Similarly, "his" was more often followed by "research," "skills," and "publications" than was "her."

**REDUCING UNCONSCIOUS BIAS IN LETTERS OF RECOMMENDATION**

Consider the following when checking letters you write for bias.

- Focus on comparing the applicant with the requirements of the job.
- When describing stereotypically female traits, ask yourself if these characteristics are relevant to the job and if you are missing other strengths.
- Avoid overuse of gendered or grindstone adjectives.
- Avoid unnecessarily invoking a stereotype ("she is not emotional...").
- Use title and surnames for both men and women instead of first names, unless using first name is standard in your field.
- While it is usually important to talk about the personality and interpersonal skills of the applicant, avoid overly focusing on them.

The example below is from a pair of real letters of recommendation written for a job candidate before and after the writer learned about unconscious bias in letters. The "before" example needlessly repeated stereotypical expectations for women (she was nice, hardworking, and easy to get along with). The "after" example was revised to focus more on the requirements of the postdoctoral positions for which she was applying.

REVISING FOR FOCUS ON REQUIREMENTS

Overly focused on interpersonal skills:
a gender stereotype

... quite gifted interpersonally: she is easy to get along with and quick to understand social situations.
... cares about her work and the needs of others around her.

Focused on the technical requirements
of the position

... with the necessary scientific methodological expertise to result in a complex and insightful dissertation study.
... technically skilled, deeply knowledgeable, resourceful, success oriented, and a pleasure to work with.

RESOURCES

Trix, F. & Psenka, C. (2003). "Exploring the color of glass: Letters of recommendation for female and male medical faculty." *Discourse & Society*, 14(2), 191-220.

NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels.

This case study describes a research-inspired practice that may need further evaluation. Try it, and let us know your results.

ncwit.org Author | Lecia Barker
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PROMISING PRACTICES

Avoiding Gender Bias in Recruitment/Selection Processes (Case Study 2)

Reducing Unconscious Bias to Increase Women's Success in IT



Career

Research shows that even individuals committed to equality harbor unconscious biases that impact everyday decisions and interactions. One area where these biases can have a profound effect is in recruitment and selection — from crafting and distribution of job postings to interviewing and hiring. The good news is that the steps below can help counteract these biases.

Advertise and recruit in venues that target diverse audiences.

Take stock of your current recruiting venues and plan strategic efforts to reach underrepresented groups. These are key websites for advertising to diverse candidate pools:

- <http://diversityjobs.com/>
- <http://www.diversity.com/>
- <http://www.hirediversity.com/>
- http://www.womenforhire.com/employer_services
- Diversity networking forums on LinkedIn

Ensure that job announcements allow for flexibility in screening and selecting candidates. Only criteria that are necessary for the job should be listed as “required” qualifications. List desired criteria as “preferred”; this allows maximum flexibility in considering different combinations of strengths.

Examine language in job announcements for bias. Does the language subtly reflect stereotypes (e.g., “results-driven,” “action-oriented,” “people-person”)? These phrases are vague descriptions of *people* rather than behaviors and can conjure up biases about *who* is usually considered “action-oriented” or a “people person.” These phrases also can deter high-quality candidates from applying for these positions if they do not think of themselves in these terms or have not been told that they are this “type of person.” Phrases such as “ability to take initiative and produce results” or “ability to collaborate effectively with a talented team” describe behaviors and leave less room for biased interpretations.

Question these statements.

- *“This candidate just isn’t a good ‘fit.’”*

Interviewers frequently use this explanation to express vague, intangible “vibes.” These “vibes,” however, often reflect unconscious biases. Instead, identify the specific reasons for “a poor fit” and examine whether these reasons reflect biases. For example, a candidate may seem “a poor fit” because his/her communication style differs from that of most current employees. Ask whether this style necessarily hinders the candidate’s ability to do the job or might it simply be a different, but equally effective, style. Failing to ask these questions can lead selection committee members to primarily hire candidates similar to themselves.

- *“I’m for diversity as long as we pick the best candidate for the job.”*

It is important to uphold quality in hiring decisions. Often, however, what counts as “best” may be based in an unconscious belief about *who* does this kind of work. In reality, there can be multiple, equally acceptable definitions of “best.” Listing the components of “best,” identifying some indicators of those components, and evaluating applicants on those indicators is useful.

Take your time and reduce distractions. Research shows that unconscious bias has a more pronounced influence on decisions when time pressure or distractions exist.

Examine evaluation tools for biases. Ensure that these tools clearly list relevant criteria — and only relevant criteria. Have selection committee members rate candidates on the criteria *and* provide reasons for their ratings. Remind evaluators to look for “nontraditional” evidence that demonstrates qualifications (e.g., overcoming adverse circumstances might be stronger evidence of future success than attending a “top school”).

CHECKLIST: REDUCING UNCONSCIOUS BIAS IN JOB DESCRIPTIONS

- ✓ Are all of the “required” criteria listed necessary for doing this job well?
- ✓ Do any of the criteria reflect unnecessary assumptions or biases about the “kind of person” who usually does this job?
- ✓ Could additional criteria be included that would open up possibilities for a wider range of excellent candidates?
- ✓ Do the criteria allow candidates to demonstrate important life experiences that may not show up on traditional resumes?
- ✓ Do you include criteria such as “ability to work on diverse teams or with a diverse range of people”?
- ✓ Does any of the language in the description describe people rather than behaviors or subtly reflect stereotypes (e.g., “results-driven,” “action-oriented,” “people-person”)?

RESOURCES

NCWIT’s Supervising-in-a-Box Series: Employee Recruitment/Selection, www.ncwit.org/supervising

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ncwit.org Author | Catherine Ashcraft
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