Stuck in the Out-Group: Jennifer Can't Grow Up, Jane's Invisible, and Janet's Over the Hill

Anna Kaatz, PhD, MPH,¹ and Molly Carnes, MD, MS^{1,2,3}

Abstract

Fifty years after Title IX, women remain sparsely represented in high ranks and leadership in academic medicine. Although men and women enter the career pipeline at similar rates, academic medicine does not equivalently advance them. Currently, women account for 32% of associate professors, 20% of full professors, 14% of department chairs, and 11% of deans at U.S. medical schools—far from the near sex parity seen in medical students since the 1990s. Over 30 years of research confirms that gender stereotypes can operate to disadvantage women in review processes and consequently bar their advancement in domains like science and medicine. The authors present three vignettes to illustrate how gender stereotypes can also operate to disadvantage women in social interactions by positioning them in the “out-group” for many career-advancing opportunities. The authors argue that policies alone will not achieve gender equity in the academic medicine workforce. Addressing stereotype-based gender bias is critical for the future of academic medicine. Interventions that treat gender bias as a remediable habit show promise in promoting gender equity and transforming institutional culture to achieve the full participation of women at all career stages. A critical step is to recognize when gender stereotyped assumptions are influencing judgments and decision making in ourselves and others, challenge them as unjust, and deliberately practice replacing them with accurate and objective data.

AS WOMEN IN ACADEMIC MEDICINE who study gender issues, we frequently observe and not infrequently personally experience how gender stereotypes operate in multiple subtle ways to perpetuate the unequal career advancement of men and women. Fifty years after Title IX, women remain sparsely represented in high ranks and leadership in academic medicine. Although men and women enter the career pipeline at similar rates, academic medicine does not equivalently advance them. Currently women account for 32% of associate professors, 20% of full professors, 14% of department chairs, and 11% of deans at U.S. medical schools—far from the near sex parity seen in medical students since the 1990s.¹

Cultural stereotypes characterize women as “communal” (e.g., kind, dependent, group-oriented) and deficient in “agentic” traits (e.g., logical, independent, leaders) that stereotypically characterize men. Over 30 years of research confirms that these stereotypes operate to disadvantage women in review processes in agentic domains like science and medicine where the assumption is that women with their communal traits will be less competent and

less likely to succeed than men who are endowed with agentic traits.^{2–5} Identical work is consistently rated lower when evaluators—both male and female—believe it has been performed by a woman, and raters require more proof of women's than men's skill (e.g., more publications or awards) to be convinced of their professional competence in agentic domains.^{5–7}

Gender stereotypes also operate to disadvantage women in day-to-day social exchanges and casual discussions that play a critical role in professional advancement. Assumptions that women lack the traits most valued and associated with success in academic medicine make them and their accomplishments less conspicuous in departmental and institutional cultures.^{2,3} This can lead to the perception of women as less legitimate members of the academic medical community and position them in the “out-group” for many career-advancing opportunities. The phenomenon of in-group–out-group bias is well described.⁸ Members of the in-group hold power, status, and prestige and their traits and behaviors are considered the norm against which the traits and behaviors of

¹Center for Women's Health Research and ²Departments of Medicine, Psychiatry, and Industrial & Systems Engineering, University of Wisconsin–Madison, Madison, Wisconsin.

³William S. Middleton Memorial Veterans Hospital Geriatric Research Education and Clinical Center, Madison, Wisconsin.

those in out-groups are compared. While in-group members are obvious targets for resources, development and leadership opportunities, and for inclusion in social and professional networks, out-group members are more often excluded.^{2,3} Most people are unaware that gender stereotypes influence their judgment and lead to unintended consequences.^{2,3,9} With adjustments to preserve anonymity, we present the cases of Jennifer, Jane, and Janet as illustrative examples of how gender stereotypes can operate subtly in informal social interactions to perpetuate women's out-group status and deter their advancement in academic medicine.

Why Jennifer Can't Grow Up

Jennifer is an associate professor in a large clinical department at an academic medical center. She is an NIH-funded, independent investigator, 4 years beyond tenure. In a recent conversation, her department chair referred to Jennifer as "junior faculty." Why would her chair assume that Jennifer is junior faculty and how could this seemingly trivial and unintentional social slight have negative repercussions on Jennifer's career advancement?

Because society consistently places greater value on agentic than on communal qualities, gender is conflated with status.^{10,11} The stronger association of women with lower status skills and traits set conditions for a more comfortable social fit for women in lower status roles in academic medicine. Evidence for this abounds: women are sparsely represented in highly agentic high status fields like interventional cardiology¹² and overrepresented in low status communal fields like pediatrics except in the agentic role of department chair where women remain underrepresented.^{1,13-15} Women are also underrepresented in high status research activities and overrepresented in lower status teaching and service activities.¹⁶ Jennifer's achievements should raise her status and grant her access to opportunities within her department. However, gender stereotypes in this instance operated to perpetuate Jennifer's out-group status: women and junior faculty have lower status than men and senior faculty; because Jennifer is a woman, automatic assumptions reinforced her assignment to the lower status junior faculty group.

Her chair's seemingly trivial mistake could negatively impact Jennifer's career in the following way. Junior faculty are ineligible (i.e., in the out-group) for many leadership opportunities. The chair's automatic assumption that Jennifer is junior faculty would prevent him from nominating her for certain awards, asking her to chair important committees, or considering her for career-advancing opportunities open only to in-group senior faculty. Even though he may deny Jennifer access to requisites for career advancement, the chair would not believe he is discriminating because he assumes Jennifer is ineligible.

Why Jane is Invisible

Jane is a recently promoted full professor who built and leads a large multidisciplinary, multimillion-dollar research program and has mentored more successful physician-scientists than any other faculty member. In an informal conversation, Jane's name was mentioned as a potential replacement for the retiring director of an institutional research center, in which she currently has a lead role. In response to

this suggestion, a senior male faculty member questioned whether Jane had "the leadership skills." When reminded of Jane's research program and accomplishments, the faculty member replied that he did not think Jane had the right credentials. In fact, Jane's credentials are no less than and in many ways substantially greater than the retiring director who is a man. When once again challenged, the faculty member conceded on this point. This informal conversation could lead to a significant formal opportunity for Jane, but why was Jane not an obvious nominee?

In a further example, Jane was giving a tour of her laboratory to an applicant for chief of a division in a large department. After repeatedly exclaiming about the facilities and the groundbreaking nature of the ongoing work, the applicant turned to Jane and said, "This is fantastic! Who is the principal investigator?" What would prevent the perception of Jane as the leader or her own research program? And how could these two separate events negatively impact Jane's career?

Women are often invisible as leaders^{17,18}—another factor perpetuating their out-group status in academic medicine. Illustrating this, studies of sketches of men and women around a table find a man versus a woman at the head of the table is more often viewed as the leader, particularly by male raters.^{17,18} Despite Jane's accomplishments, gender stereotypes operated in several ways to decrease the perception of her as a leader, thereby keeping her in the out-group. First, assumptions that women lack the agentic traits associated with leadership made it less likely for her to be "seen" as a leader—this is referred to as descriptive bias.¹⁹ Second, she practiced a transformational leadership style instead of a more directive, agentic leadership style. While this highly effective form of leadership allows women to avoid social penalties for displaying overtly agentic behaviors, it may be devalued or unrecognized as true leadership because it contrasts with stereotypes of typical leaders.²⁰ Finally, a woman's credentials—even when equivalent or identical to a man's—may be devalued in male-typed domains.^{21,22} Taken together, this research would explain why gender made Jane invisible as a leader, led to her credentials being questioned, and prevented her from being viewed as qualified for a high status director role—a role in which she would advance her own career and benefit the institution. Jane's experience paints a picture of the complex ways in which gender stereotypes can play out socially to perpetuate women's out-group status and bar access to opportunities.

Why Janet Is Over the Hill

Janet, a full professor and an accomplished senior investigator, was serving on a committee for a professional society. In discussing who should be invited to give the keynote address at the annual conference, one member put forth Janet's name and she agreed. However, the chair of the planning committee and previous keynote speaker himself said, "Why don't we give one of the younger women a chance instead?" What could explain this curious suggestion?

The magnitude of the disadvantage women face due to the assumption that they lack male-typed agentic traits increases by career stage.⁵ The conflation of gender and status is again relevant. More advanced career stages have higher status and higher status positions are more strongly male-typed.⁵

Consequently, even women at the most senior career stages are in the out-group.⁵ This dynamic explains why despite Janet's senior rank, long career and accumulation of significant accomplishments, her potential contribution as a key note speaker was given little weight. The chair's suggestion that Janet "give one of the younger women a chance" may also have been an example of tokenism. Tokenism involves selecting one member of a minority group to represent all members of that group, thus allowing the chair to make the female accomplished scientist and the female junior investigator interchangeable as keynote speakers because they are both women. Although the chair may believe he is well intentioned, this social gesture ultimately reinforces women's out-group status by treating women as symbolic instead of legitimate members of the academic community.

Conclusion

Policies alone will not achieve gender equity in the academic medicine workforce. Entrenched cultural stereotypes about men and women operate both formally in review processes for hiring and promotion and informally in social interactions. Although inadvertent and generally unintended, the result is to systematically disadvantage women as they strive to gain equal footing in status, influence, control of resources, and institutional power. Each disadvantage a woman experiences accumulates, ultimately slowing advancement from a promising clip at early stages to a crawl through high ranks.³ Addressing stereotype-based gender bias is critical for the future of academic medicine. Interventions that treat gender bias as a remediable habit show promise in promoting gender equity⁹ and transforming institutional culture^{23–27} to achieve the full participation of women at all career stages. A critical step is to recognize when gender stereotyped assumptions are influencing judgments and decision making in ourselves and others, challenge them as unjust, and deliberately practice replacing them with accurate and objective data. This is the only way we will bring Jennifer, Jane, and Janet into the in-group, where all of academic medicine can benefit from their talent, creativity, and leadership.

Acknowledgments

Dr. Carnes' and Dr. Kaatz's work on increasing scientific workforce diversity is funded by NIH grants R01 GM111002 and R25 GM083252.

Disclosure Statement

No competing financial interests exist.

References

- Jolliff L, Leadley J, Coakley E, Sloane R. Women in U.S. academic medicine and science: Statistics and benchmarking report, 2011–2012. Washington, DC: AAMC, 2012:6–10.
- National Academy of Sciences National Academy of Engineering Institute of Medicine of the National Academies. Beyond bias and barriers: Fulfilling the potential of women in academic science and engineering. Washington, DC: National Academies Press, 2007.
- Valian V. Why so slow? The advancement of women. Cambridge, MA: The MIT Press, 1999:126–144.
- Hill C, Corbett C, St Rose A. Why so few? Women in science, technology, engineering, and mathematics. Washington, DC: AAUW, 2010:38–42.
- Heilman ME, Haynes MC. Subjectivity in the appraisal process: a facilitator of gender bias in work settings. In: Borgida E, Fiske ST, eds. Beyond common sense: Psychological science in the courtroom. Oxford: Wiley-Blackwell, 2008:127–155.
- Biernat MB. Stereotypes and shifting standards: Forming, communicating and translating person impressions. In: Devine PG, Plant A, eds. Advances in experimental social psychology. San Diego, CA: Academic Press, 2012:1–50.
- Moss-Racusin CA, Dovidio JF, Brescoll VL, Graham MJ, Handelsman J. Science faculty's subtle gender biases favor male students. *Proc Natl Acad Sci U S A* 2012;109:16474–16479.
- Kramer RM, Leonardelli GJ, Livingston RW. Social cognition, social identity, and intergroup relations. New York, NY: Taylor and Francis, 2011.
- Carnes M, Devine PG, Isaac C, et al. Promoting institutional change through bias literacy. *J Divers High Educ* 2012;5:63–77.
- Ridgeway CL, Bourg C. Gender as status: An expectation states theory approach. In: Eagly AH, Beall AE, Sternberg RJ, eds. The psychology of gender, 2nd ed. New York: Guilford Press, 2004:217–241.
- Correll S, Ridgeway C. Expectation states theory. In: Delamater J, ed. Handbook of social psychology. New York: Springer, 2006:29–51.
- Poppas A, Cummings J, Dorbala S, Douglas PS, Foster E, Limacher MC. Survey results: A decade of change in professional life in cardiology. A 2008 report of the ACC Women in Cardiology Council. *J Am Coll Card* 2008;52:2215–2226.
- Boulis A, Jacobs J, Veloski JJ. Gender segregation by specialty during medical school. *Acad Med* 2001;76:S65–S67.
- Davis G, Allison R. Increasing representation, maintaining hierarchy: An assessment of gender and medical specialization. *Soc Thought Res* 2013;32.
- Jagsi R, Griffith KA, DeCastro RA, Ubel P. Sex, role models, and specialty choices among graduates of U.S. medical schools in 2006–2008. *J Am Coll Surgeons* 2014;218:345–352.
- Shollen SL, Bland CJ, Finstad DA, Taylor AL. Organizational climate and family life: How these factors affect the status of women faculty at one medical school. *Acad. Med.* 2009;84:87–94.
- Jackson D, Engstrom E, Emmers-Sommer T. Think leader, think male and female: Sex vs. seating arrangement as leadership cues. *Sex Roles* 2007;57:713–723.
- Porter N, Geis F, Jennings J. Are women invisible as leaders? *Sex Roles* 1983;9:1035–1049.
- Heilman ME. Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *J Soc Issues* 2001;57:657–674.
- Eagly AH, Johannesen-Schmidt MC, Van Engen ML. Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men. *Psychol Bull* 2003;129:569.
- Heilman ME, Haynes MC. No credit where credit is due: Attributional rationalization of women's success in male-female teams. *J Appl Psychol* 2005;90:905.

22. Uhlmann EL, Cohen GL. Constructed criteria redefining merit to justify discrimination. *Psychol Sci* 2005;16:474–480.
23. Bunton SA, Corrice AM. Evolving workplace flexibility for U.S. medical school tenure-track faculty. *Acad Med* 2011;86:481–485.
24. Krupat E, Pololi L, Schnell ER, Kern DE. Changing the culture of academic medicine: The C-Change learning action network and its impact at participating medical schools. *Acad Med* 2013;88:1252–1258.
25. Pati S, Reum J, Conant E, et al. Tradition meets innovation: transforming academic medical culture at the University of Pennsylvania's Perelman School of Medicine. *Acad Med* 2013;88:461–464.
26. Valantine H, Sandborg CI. Changing the culture of academic medicine to eliminate the gender leadership gap: 50/50 by 2020. *Acad Med* 2013;88:1411–1413.
27. Morahan PS, Rosen SE, Richman RC, Gleason KA. The leadership continuum: A framework for organizational and individual assessment relative to the advancement of women physicians and scientists. *J Womens Health (Larchmt)* 2011;20:387–396.

Address correspondence to:

Molly Carnes, MD, MS
Center for Women's Health Research
University of Wisconsin–Madison
700 Regent Street, Suite 301
Madison, WI 53715

E-mail: mlcarnes@wisc.edu