

Are Women Better PIs?

Do women excel as leaders or are they more critical of female subordinates? Some research-based advice for leaders and their employees.

When Sue Rosser was doing her postdoc in zoology at the University of Wisconsin-Madison, she got pregnant with her second child. She went to her principal investigator (PI) to discuss how to proceed with her project. He said there was no way her science could survive another baby, and advised her to get an abortion, she recalls. Appalled at the suggestion, "I decided not to do that," she says.

That was 1973, and discriminatory comments such as those Rosser experienced are less common today. That change in perception and respect has allowed women to climb to leadership positions in the life sciences, even though their numbers still lag significantly behind those of men. "I've seen many positive changes," says Rosser, who went on to become a dean at Georgia Institute of Technology, recently took a position as provost of San Francisco State University, and authored *Women, Science, and Myth: Gender Beliefs from Antiquity to the Present*.

But the picture is not all rosy. When a postdoc at a major research university recently took on her first position supervising a research technician in the lab, her advisor suggested that she might not want to hire a white male. The suggestion, says the female postdoc, who requested anonymity, was that she wouldn't be able to direct a male subordinate.

When it comes to science, women are still struggling to advance through the ranks. It's a story we've all heard by now: Women enter science at greater or equal rates as men, but slowly drop out of the research game, leaving most leadership positions to men. Indeed, women in the life sciences only make up about 15 percent of full professors at top research institutions, according to a recent National Academies of Science report. When women do make it, they're faced with the challenge of leadership.

Last summer, the New York Times ran an article entitled "No Doubts: Women Are Better Managers," which unleashed a firestorm of comments (over 300), many of which railed against the inherent sexism of that proposition and others that suggested that women were in fact worse bosses, who were harder on their female subordinates than males.

Here's what the science says about male and female managers, and some evidence-based advice for working with men and women in the lab.

Part One:

Question: Do women treat female subordinates worse than men?

Answer: Maybe, but probably not.

A survey released by the Workplace Bullying Institute (WBI) asked people to recall incidents of workplace bullying, such as verbal abuse, threatening conduct, intimidation or humiliation, and sabotage. Overall, respondents recalled being bullied by men more than by women. Surprisingly, however, of the women who recalled being bullied, two out of three said they were bullied by other women.

Why would women perhaps be harder on women than men in the workplace? The answer, says Rosser, may be similar to why doctors abuse medical students—some women think that because they had it rough, it's their

responsibility to make women who work for them tougher and more resilient to the adversity they're sure to meet.

But there's another possibility, she says. People may "almost expect men to do some bullying," but when it comes from a woman, it sticks in the memory. As more women assume leadership positions, they may be shattering the stereotypical perception of how women are supposed to behave-gentle and supportive-which makes their behavior stand out. In other words, if someone gets bullied equally by a man and a woman, over time it's only the woman who's recalled. In fact, there's data to support the idea.

In a study of discipline in the workplace, Leanne Atwater, a management professor from the University of Houston C.T. Bauer College of Business in Texas, showed that both men and women have a harder time accepting harsh words from female bosses than they do from male superiors. Her study found that both men and women felt the rebuff was unfair, mistaken, or mishandled when administered by a woman. Males disciplined by females were most likely to think that she made a mistake. "Women reacted to discipline [from men] better than any other [gender pairing]," says Atwater (*J of Management*, 27:537-61, 2001).

Women are more likely to adopt characteristics that are associated with more effective leadership, such as delivering rewards for performance and consideration for the growth of the individual "This perception," says Atwater, that "if a woman tells me what to do, she's a bully," could be behind both women's and men's perception of female leaders as less fair. But it's certainly possible that women may "go overboard to the masculine side, so as not to be perceived as weak," she says, which could also contribute to the perception.

However, other data show that women help each other-for instance, women have a harder time rising through the ranks if there are no female leaders in the company. In general, "more women are promoted if there are more women in charge," says Alice Eagly, a social psychologist at Northwestern University.

"In the aggregate, the data do not support" that women punish other women more than men, says Eagly. Although the WBI study suggested otherwise, it was based on the recollections of participants, and "people tend to remember something that is contrary to what they expect," says Rosser.

Part Two:

Question: Are women better managers?

Answer: In the lab setting, possibly.

Women have struggled to gain top positions, in part, researchers argue, because the idea of leadership is incongruous with the stereotypical view of women as nurturing and supportive. In a study that tracked facial expressions of participants in response to men or women taking charge of a group dynamic, more participants (both male and female) displayed unconscious expressions of displeasure when a woman was assertive (*Journal of Personality and Social Psychology*, 58:48-59, 1990).

But there is evidence to suggest that women sometimes have an advantage over men. In a study of manager behaviors, actors read an identical passage with a neutral, sad, or angry tone, and respondents rated their reactions, simulating how they would react if the actor was their boss. When the actors read the passage in a neutral tone, women were rated higher than men. Men were rated higher than women when expressing anger, but lower than women when expressing sadness (*J Organiz Behav*, 21:221-34, 2000). There's also a persistent stereotype (not consistently supported by research) that women are better at multitasking-if true, it would give them a distinct advantage as PIs.

There are also signs that women may excel at a new leadership style. While authoritarian behavior may be appropriate in work settings that are deeply hierarchical, such as the military or assembly-line work, "my way or the highway" leadership is much less necessary and less appreciated in more complex organizational structures, such as those of a laboratory, says Atwater. New research shows that workers today look for what's called a transformational leader, one that innovates, mentors and pushes employees to develop their creativity and personal skills. In a meta-analysis of leadership styles, women made up 52.5 percent of the above-average transformational leaders, while men comprised 47.5 percent.

Women are more likely to adopt characteristics that are associated with more effective leadership, such as delivering rewards for performance and consideration for the growth of the individual (Psychological Bulletin, 129:569-91, 2003). In another study in the Journal of Leadership and Organizational Studies, female leaders were rated as more "charismatic," defined as more likely to recognize the skills, abilities and limitations of members of their organization and facilitate positive group dynamics and mutual respect. This quality could give women an advantage in resolving the day-to-day conflicts in the lab.

Today, effective leadership is defined "less [as] the top down, tell-everyone-what-to-do approach," says Eagly. The new definition "is not necessarily feminine, but it's more androgynous," she says.

Leadership advice from women

Be a model

"You yourself have to be a good exemplar," says Eagly. Laissez-faire leaders—those who avoid making decisions or taking action—are rated the lowest among all types of leaders (J Appl Psychol, 89:901-10, 2004). Lack of initiative isn't a quality most leaders would want in their employees, so make sure you don't exhibit it either.

Drive and reward creativity

Leaders that win the highest regard from their employees are those who "challenge them to be creative," says Eagly. "Talk to them about the importance of the goals, and of course, how they would fit in, what their skills are."

Set expectations early

If you're saying you're going to supervise someone, you should follow up from day one. Don't wait for them to come to you. You need to present them with a plan that lays out your expectations.

Get feedback indirectly

It's not usually appropriate for a leader to ask a subordinate for feedback. Instead, says Juliet Moncaster, a committee leader at the National Postdoc Association and a postdoc at Boston University, "I ask in an indirect way if I was too critical of their work," for instance. She suggests following up the next day and asking, "Did you understand the points that I was trying to get across?," and then gauge their reaction. If they seem upset at all, perhaps a softer tone would be more appropriate next time.

Champion their work

Employees look for leaders who can champion their achievement to others, says Jennifer Reineke Pohlhaus,

director of science and policy at Ripple Effect Communications and former board member of the National Postdoctoral Association. If someone who works for you has done well, make sure to mention it to outside colleagues when the opportunity arises.

Tips: Check your gender biases
For employees:

Think twice

Before you argue with a female superior, ask yourself if you would disagree as vehemently with the reprimand if it were administered by a man. If so, carry on.

Check your expectations

People often subconsciously expect more from female bosses than male bosses. "People have high expectations that the woman will be the mom, the therapist"-expectations they never have of men, says Eagly. "Leadership is not about friendship. That's not the point," she says.

Look around for mentors

Because of the relative dearth of female leadership, women in top positions can get inundated with requests for mentoring. If a female boss doesn't seem to have the time to support or champion your work the way you would like, ask her to suggest other scientists (even male) who might be good additional mentors.

Show your support

Being a PI is hard enough-imagine being a woman surrounded by male PIs and administrators. It doesn't hurt to show a female boss that you support her and her decisions, says Rosser.

For employers:

Find your own style

Research shows that there's a higher social cost for women who assert themselves in the workplace than there is for men. The solution? "Don't sacrifice the ability to take charge," says Eagly. Women shouldn't stop being assertive, giving their opinion, or reprimanding an employee when needed, but they may be more effective if they temper their presentation. "I'm quite assertive, and I'm willing to share my viewpoint," says Atwater. However, she says, "I don't do it in a pound-the-table sort of way." She finds it's often better "to soften things and preserve egos a little more."

Listen to concerns

When mediating conflict, women are seen as better leaders if they can empathize with employees. Brusque behavior is forgiven more readily when a male administers it than a female. "Women have to be more nurturing," says Atwater, "if [they] want to be perceived as handling it well."

Curb your emotion

In the aforementioned study of manager behaviors, when actors read an identical passage with a neutral, sad or angry tone, women were rated higher than men when both spoke in a neutral tone. The study suggests that women might have an edge in a social setting, if they can handle a charged situation with an even keel (J Organiz Behav, 21:221-34, 2000).

Build your network

"Women need to work harder to get connected," says Eagly. "If it's a male-dominated field, [women] may feel more isolated; that's not good for their careers, or their leadership." Reach out to others, even if you consider some potential mentors a peripheral colleague, suggests Pohlhaus. "It's not that women necessarily lack a network," she says. "Women are not as good at recognizing that they have it."