

Competition & Gender

Insights for Aspiring Women and Managers



A growing body of research suggests that men and women respond differently to competition. Men tend to be more competitive than women, and women more frequently opt out of competitive environments. These differences can have significant impacts on women’s careers.

**Do Women Shy Away from Competition?
Niederle and Vesterlund (2007)**

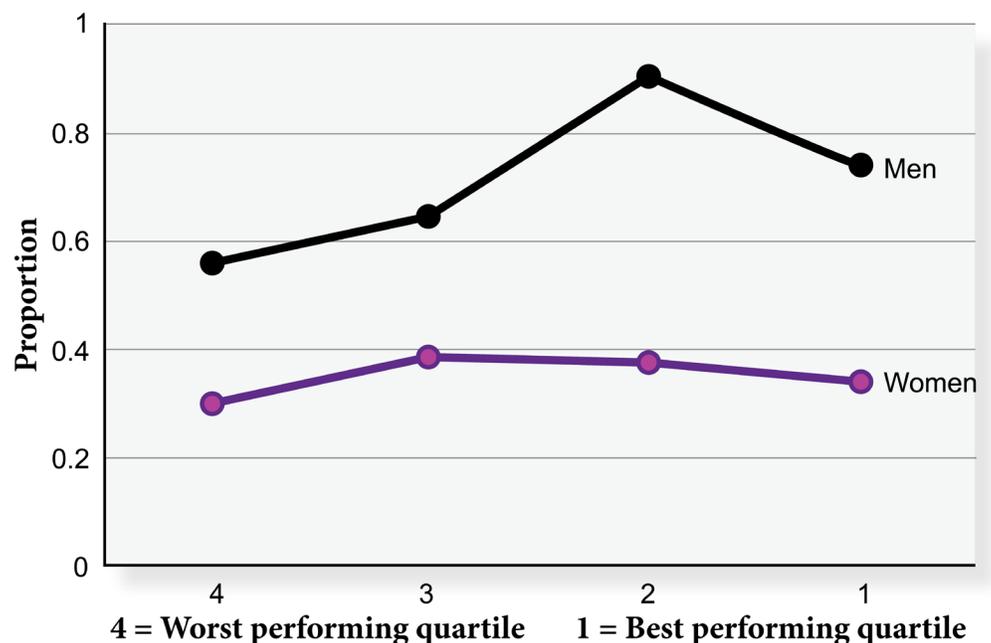
Professors Muriel Niederle and Lise Vesterlund designed a controlled laboratory experiment to measure whether men and women differ in their preferences for competition, controlling for other factors, and how these differences impact economic outcomes. The researchers asked groups of men and women to add up sets of two-digit numbers, both in competitive (tournament) and noncompetitive (piece-rate) compensation settings. After performing the task once in each setting, participants were asked to choose between the tournament and the piece-rate compensation format for their final task.

The difference in participant choices was striking: while 73 percent of men chose the tournament, only 35 percent of the women chose the

same. The gap remained when comparing men and women of equal performance on the tasks. The researchers noted that “...compared to payoff-maximizing choices, low-ability men enter the tournament too much, and high-ability women do not enter it enough.”

The authors also found that men were substantially more overconfident about their relative performance than women. However, even when controlling for factors like overconfidence and performance, a sizeable part of the gender difference in tournament entry was still explained by men and women having different preferences for performing in a competitive environment. This finding resulted in a substantial monetary loss for high-performing women and illustrates the importance of dialogue around gender and competition.

This figure is based on Figure 2 from Niederle and Vesterlund (2007), and illustrates the proportion of men and women in the experiment who selected to participate in the tournament. Across performance levels, men demonstrated a significantly higher eagerness to compete than women.



The tournament entry gap is driven by men being more overconfident and by gender differences in preferences for performing in a competition. The result is that women shy away from competition and men embrace it.

-Niederle and Vesterlund (2007)-

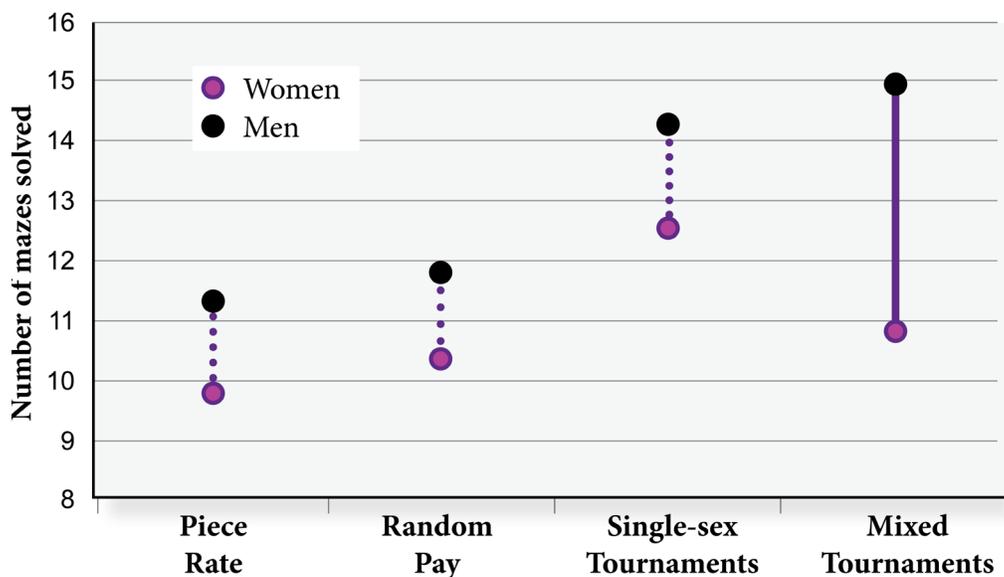
Gender Differences in Competitive Performance: Gneezy et al. (2003)

Professors Uri Gneezy, Muriel Niederle, and Aldo Rustichini conducted an experiment in Israel to test the performance of men and women on competitive tasks. The researchers asked groups of men and women to solve a series of mazes in 15 minutes, under both competitive and noncompetitive payment schemes. They found that while no significant gap exists for fixed-rate and single-sex competition, a significant gender gap emerges in mixed-gender tournaments. The researchers thus concluded that women do not necessarily perform worse in competitive environments; rather, that only in specific circumstances (e.g. when confidence levels differ) do performance gaps emerge.

This illustration below is drawn from Figure 2 of Gneezy et al. (2003), and illustrates the average number of mazes solved by men and women in different competitive environments. The difference on the far right demonstrates the gap in performance in mixed-gender competition.

Gender, Competitiveness, and Career Choices: Buser et al. (2014)

Professors Thomas Buser, Muriel Niederle, and Hessel Oosterbeek built on this research by investigating the impact of gender differences in competition on career choices. The researchers looked at students in four secondary schools in Amsterdam and used the measure of competitiveness from Niederle and Vesterlund (2007) to examine the effect of competitiveness on students' selection of academic-track careers. The researchers found that competitive students show a higher likelihood to choose more prestigious and higher-paid career tracks. They also confirmed that women tend to exhibit less competitiveness than their male counterparts. The authors found that these gender differences in competitiveness account for a large part—up to 23 percent—of overall differences among genders in career selection. This research thus suggests that gender differences in competitiveness have significant impacts on the professional profiles of young women.



We observe, as we increase the competitiveness of the environment, a significant increase in performance for men, but not for women. This results in a significant gender gap in performance in tournaments, while there is no gap when participants are paid according to piece rate.

-Gneezy et al. (2003)-

Gender Differences in Willingness to Guess: Coffman (2014)

Professor Katherine Baldiga Coffman investigated gender differences in the willingness to guess on multiple-choice tests. Participants in Coffman's study took an experimental test of questions drawn from SAT II subject tests: some participants were told they would be penalized for wrong answers, while others were not. When no penalty was assessed for a wrong answer, all participants answered all of the questions. By contrast, when there was a penalty assessed for a wrong answer, women answered significantly fewer questions than men. This gender disparity was not driven by differences in knowledge of the test material or confidence in the test takers, and was explained only in part by differences in risk preferences. Among participants with similar knowledge of the test material, those who skipped more questions did worse on the test. This suggests that gender differences in the willingness to guess may be contributing to gender gaps in standardized test scores.

Who Speaks Up? Evidence on Self-Stereotyping and the Contribution of Ideas: Coffman (2014)

Coffman further investigated the impact of gender on individuals' willingness to contribute ideas in a group. In a controlled lab experiment, researchers gave individuals a brief test of their knowledge in six categories: Arts and Literature, Entertainment and Pop Culture, Environmental Science, History, Geography, and Sports and Games. The participants were then randomly assigned into groups of two and randomly assigned new questions in each of the categories. The individuals were asked to provide a "group answer" by submitting their willingness to submit their own answer over their partner's. At the end of the experiment, participants were asked to assess the "maleness" of each test category. Arts and

Entertainment categories were perceived as female-typed, whereas Environmental Science, History, Geography, and Sports were perceived as male-typed. Coffman found large gender effects in the willingness to contribute in a group. Controlling for ability, male and female participants were more willing to contribute their answers in gender-congruent categories. Women were significantly more willing to contribute in Arts and Entertainment, while men were more willing to contribute in the male-typed categories. Participants were also more likely to guess that they had a higher score than their partner in gender-congruent categories. Additionally, Coffman found a gender gap in "missed opportunities"; women were more likely to put their partners' answers above their own in male-typed categories, even when they answered correctly. This work highlights an additional source of gender disparity in the workplace and suggests there may be missed opportunities when knowledgeable women are not vocal in male-dominated business environments.

Our results show that even in an environment where other group members show no bias, women in male-typed areas and men in female-typed areas may be less influential.

-Coffman (2014)-
