# Experimental estimates of men's and women's willingness to compete: Does the gender of the partner matter?

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## Abstract

In a classical experiment, Niederle and Vesterlund (2007) used the dichotomous choice of individuals between a piece rate and a tournament payment scheme as an indication of their propensity to compete.
This paper reports results from a two person interaction of a similar type to analyze whether the preference for competition is dependent on the gender of the partner.

It introduces a Becker–DeGroot–Marschak mechanism to elicit individual willingness to compete (WTC), defined as the amount of money that makes an individual indifferent between the two compensation schemes. The WTC instrument allows for a more precise analysis of the impact of the partner's gender on the taste for competition.

In general, our instructions replicate the experiment by Niderele and Vesterlund (2007); in particular, we kept the key principle according to which, when choosing the tournament, individuals compete against the past performance of their partner, thus eliminating any strategic or altruistic motives. To study "pure" gender interactions, we made groups of two individuals only. The payoff structure is similar to NV too: in the piece rate treatment, each participant can earn 0.50 per correct answer; in the tournament treatment, the best performer on the team earns 1.00 per correct answer, and the other obtains nothing. All experimental sessions were mixed, but, within each session, we create both mixed gender pairs and homogenous gender pairs by random allocation. We ensure that in tasks that involve interactions, participants are aware of the gender of their partner. Tasks 1 to 3 are identical to NV. Task 4 is our original treatment. Basically, we ask subjects to report the amount of money that makes them indifferent between the 0.50 piece rate and the 1.00 tournament. The experiment intoduces a slider task coupled with a Becker–DeGroot–Marschak (BDM) selection mechanism. In theory, the BDM mechanism should prompt subjects to report truthfully their willingess to compete (WTC).

The analysis reveals that on average men are characterized by a preference for competition (their average WTC is 2.11) while women are characterized by competition aversion (their average WTC is -1.39) in line with the standard result in experimental economics first emphasized by Niedele and Vesterlund (2007) and corroborated by many other studies. This gap persists even when controlling for performance, overconfidence and risk aversion.

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On average, men paired with men have a stronger WTC than man paired with women, and women paired with women have a lower aversion to competing than women paired with men, but these differences are not statistically significant. In our data, only overconfidence seems to be impacted by the gender of the partner, as male subjects are more overconfident when paired with women than with men.