

Supplementary Materials to:  
Selection into Self-Improvement and Competition Pay: Gender,  
Stereotypes, and Earnings Volatility

David Klinowski

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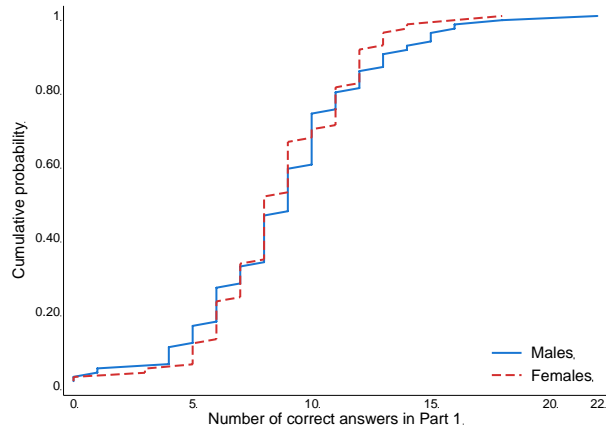
(For online publication)

This document presents supplementary analysis in support to the main paper.

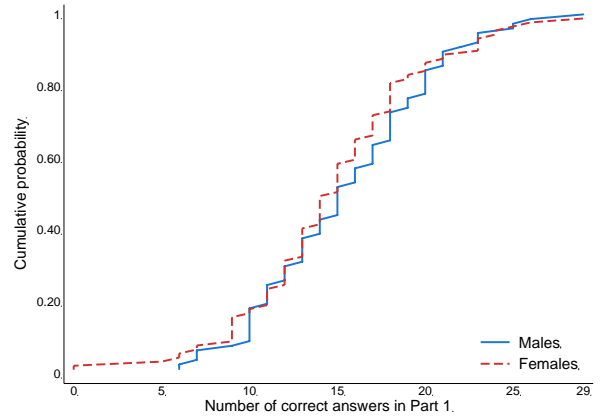
*Assumption on the construction of types*

In the main text we note that the correspondence between Option A in Part 2 and the sure payment of  $X$  in Part 3 of the experiment rests on the assumption that in Part 2 the participant is certain that she can obtain at least the same number of correct answers as she obtained in Part 1. This assumption is most likely to hold for participants who report that they expect to solve in Part 2 a larger number of sums or anagrams than those solved in Part 1. We see that 63% of participants in the self-improvement sessions hold such beliefs for the sums task, while 38% of participants in the self-improvement sessions hold such beliefs for the anagrams task. Restricting the analysis to these individuals finds that among men, 10% of participants are classified as self-improvement-averse, 26% as self-improvement seeking, and 64% as consistent. Among women, 26% are classified as self-improvement-averse, 23% as self-improvement-seeking, and 51% as consistent. Thus, among this subset of participants, women tend to be self-improvement averse in larger proportion and consistent in smaller proportion than men, although the difference in distributions is only marginally significant ( $\chi^2$  test p-value = 0.106).

**a. Math task**

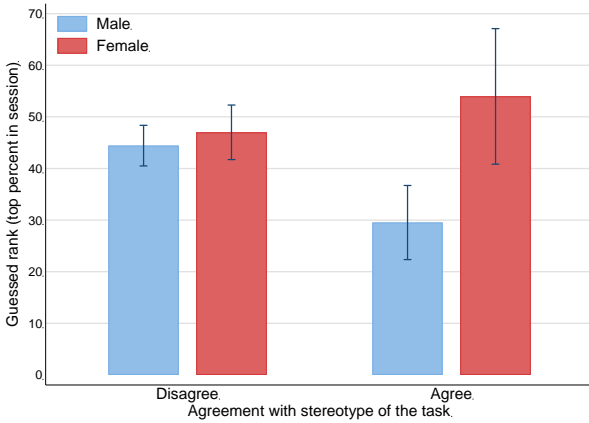


**b. Verbal task**

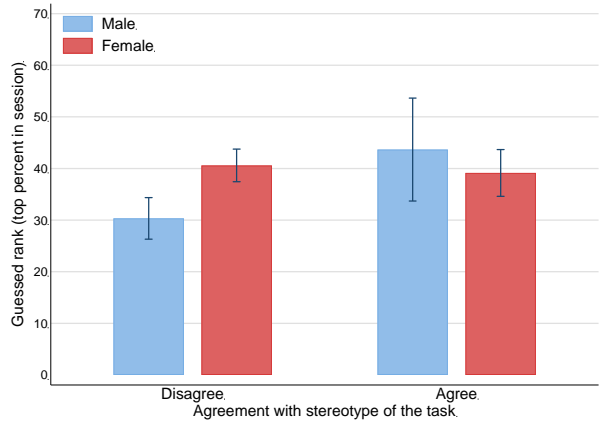


**Figure A1: Cumulative distribution of performance in Part 1**

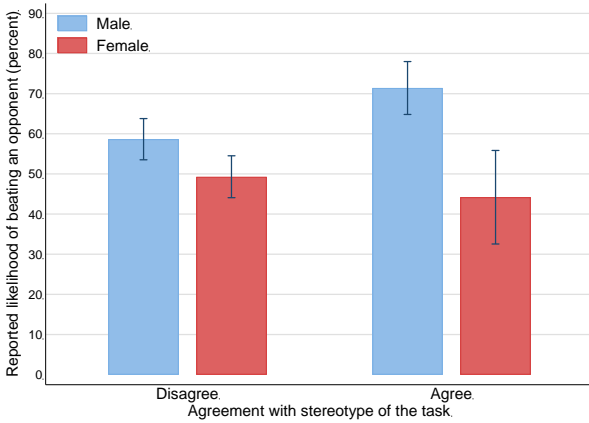
**a. Guessed rank, math task**



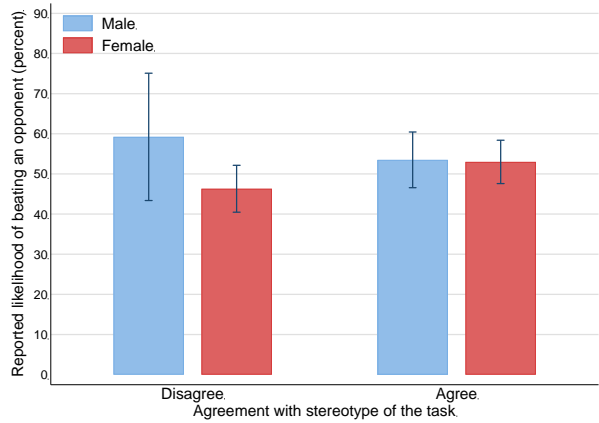
**b. Guessed rank, verbal task**



**c. Reported likelihood beating opponent, math task**



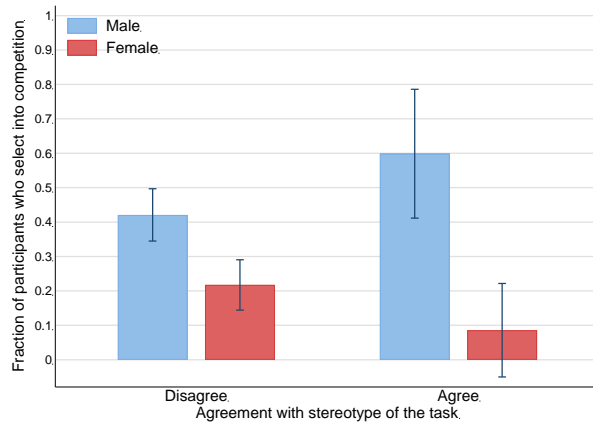
**d. Reported likelihood beating opponent, verbal task**



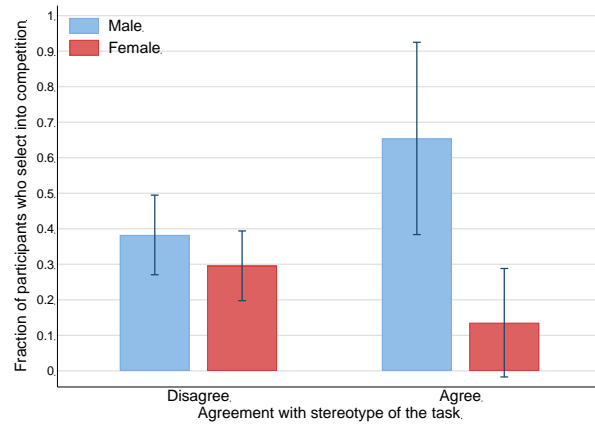
**Figure A2: Gender Gap in Confidence in Competition Sessions, by Agreement with Stereotype**

**Notes:** Estimates from OLS regressions that control for actual ranking and a STEM major indicator, with standard errors clustered at the session level. Range bars are 90-percent confidence intervals.

**a. Math task**



**d. Verbal task**



**Figure A3: Gender Gap in Selection into Competition, by Agreement with Stereotype**

**Notes:** Estimates from probit regressions that control for a STEM major indicator, with standard errors clustered at the session level. Range bars are 90-percent confidence intervals.

**Table A1: Beliefs About Relative Performance and the Probability of Beating an Opponent**

	a. Guessed rank				b. Belief probability beating an opponent			
	Math (1)	Verbal (2)	Pooled (3)	Pooled (4)	Math (1)	Verbal (2)	Pooled (3)	Pooled (4)
Female	1.407** (0.046)	0.130 (0.759)	-0.083 (0.641)	1.086*** (0.234)	-13.186** (3.481)	-7.510* (2.928)	-6.155* (2.940)	-12.922 (7.628)
Math task			1.060 (0.747)	2.624*** (0.318)			5.240 (4.846)	-0.572 (8.795)
Female*Math task			1.550** (0.069)	-0.300 (0.372)			-7.234 (4.954)	3.567 (8.439)
Agree stereotype				2.200 (1.291)				-5.721 (10.901)
Female*Agree stereotype				-2.197 (1.225)				12.410 (9.518)
Math task*Agree stereotype				-4.187** (1.464)				18.458 (12.377)
Female*Math task*Agree stereotype				5.192** (1.904)				-30.254** (10.963)
R <sup>2</sup>	0.391	0.230	0.403	0.433	0.174	0.054	0.101	0.137
N	79	74	153	153	79	74	153	153

**Notes:** Coefficients from OLS regressions the predict the guessed rank in the session (Panel a) and the reported probability of beating an opponent (Panel b). Regressions control for the participant's actual rank in the session, and a STEM major indicator. *Pooled* specifications pool data from both tasks in competition sessions. Standard errors clustered at the session level in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Table A2: Beliefs About the Level of Improvement and the Probability of Improving**

	a. Expected level of improvement				b. Belief probability improving			
	Math (1)	Verbal (2)	Pooled (3)	Pooled (4)	Math (1)	Verbal (2)	Pooled (3)	Pooled (4)
Female	-0.395 (0.303)	-1.547** (0.558)	-1.476*** (0.528)	-0.600 (0.837)	1.812 (2.528)	1.335 (3.974)	1.723 (3.959)	12.279* (5.946)
Math task			0.254 (0.497)	0.973 (0.740)			9.060* (4.917)	19.407*** (5.818)
Female*Math task			0.982* (0.567)	0.109 (0.869)			-0.372 (4.876)	-11.124 (7.830)
Agree stereotype				1.294** (0.616)				13.709*** (4.374)
Female*Agree stereotype				-1.567* (0.826)				-17.951** (6.366)
Math task*Agree stereotype				-1.281 (0.944)				-19.507** (8.293)
Female*Math task*Agree stereotype				1.573 (1.055)				16.276 (12.502)
R <sup>2</sup>	0.688	0.701	0.758	0.761	0.054	0.029	0.076	0.111
N	174	166	340	340	96	92	188	188

**Notes:** Coefficients from OLS regressions the predict the expected performance in Part 2 (Panel a) and the reported probability of improving (Panel b). Regressions control for a STEM major indicator. In addition, they control for Part-1 performance (in Panel a) and actual rank in the session (Panel b). *Pooled* specifications pool data from both tasks in competition sessions. Standard errors clustered at the session level in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.