Online Appendix for

Rank versus Inequality—Does Gender Composition Matter?

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A Mechanical Turk survey for unambiguous first names

1. **Preliminary Information**: This survey is part of a research project by Duk Gyoo Kim and Max Riegel at the University of Mannheim. Your participation in this research study is voluntary. If you decide to participate in this research survey, you may withdraw at any time. The survey will take approximately 10 minutes. Your responses will be confidential, and we do not collect identifying information such as your name, email address, or IP address. All data is stored in a password-protected electronic format. The results of this study will be used for scholarly purposes only.

Important Disclaimer: The survey will contain two attention-check questions. You will be asked to solve two simple mathematical tasks. You will only be paid if you answer those questions correctly! Please avoid random answers. Since we spread 20 questions whose answers of previous participants were 100% identical, we can cross-validate your answers.

2. Attention Check: Choose the lowest number. (10 options are given.)

3. What is your gender?

Response	Frequency
male	52
female	28

4. Where do you live?

Response	Frequency
Germany, Austria or Switzerland	29
Other European country	37
Asia	14

5. How old are you?

Response	Frequency
younger than 18	0
18–29	36
30–39	21
40–49	18
50 or older than 50	5

6. Please classify the following names as male, female, or unsure/unisex. (Names were displayed in random order.)

Name	#M	#F	#U	Name	#M	#F	#U	Name	#M	#F	#U	Name	#M	#F	#U
Aaron	80	0	0	Adam	80	0	0	Alyssa	0	80	0	Elena	0	80	0
Albert	80	0	0	Anthony	80	0	0	Helena	0	80	0	Isabella	0	80	0
Arthur	80	0	0	Christopher	80	0	0	Jasmine	0	80	0	Jennifer	0	80	0
David	80	0	0	Derek	80	0	0	Lisa	0	80	0	Luisa	0	80	0
Edward	80	0	0	Ethan	80	0	0	Monica	0	80	0	Sarah	0	80	0
Frank	80	0	0	Fred	80	0	0	Sylvia	0	80	0	Alicia	1	79	0
Hugo	80	0	0	James	80	0	0	Angelica	1	79	0	Christina	1	79	0
Jason	80	0	0	Patrick	80	0	0	Jessica	1	79	0	Julia	1	79	0
Peter	80	0	0	Richard	80	0	0	Katherina	1	79	0	Lara	1	79	0
Robert	80	0	0	Ronald	80	0	0	Laura	1	79	0	Marisa	1	79	0
Steven	80	0	0	Thomas	80	0	0	Olivia	1	79	0	Rebecca	1	79	0
Walter	80	0	0	Xavier	80	0	0	Regina	1	79	0	Samantha	1	79	0
Benjamin	79	1	0	Brandon	79	0	1	Sandra	1	79	0	Selina	1	79	0
Bruno	79	1	0	Charles	79	1	0	Teresa	1	79	0	Claudia	2	78	0
Christian	79	0	1	Daniel	79	0	1	Cynthia	2	78	0	Elizabeth	2	78	0
Diego	79	0	1	Eric	79	1	0	Ella	2	78	0	Eva	2	78	0
Gregor	79	1	0	Isaac	79	1	0	Lena	1	78	1	Linda	2	78	0
Ivan	79	1	0	Jacob	79	1	0	Lydia	2	78	0	Melissa	2	78	0
John	79	1	0	Jonathan	79	0	1	Mia	2	78	0	Michaella	2	78	0
Kevin	79	1	0	Leonard	79	1	0	Natasha	2	78	0	Rose	2	78	0
Manuel	79	0	1	Marco	79	0	1	Sabrina	2	78	0	Sophia	2	78	0
Matthew	79	1	0	Nicholas	79	1	0	Ariana	3	77	0	Bianca	3	77	0
Norman	79	0	1	Paul	79	1	0	Cassandra	3	77	0	Clara	3	77	0
Phillip	79	1	0	Ralph	79	1	0	Daniela	3	77	0	Diana	3	77	0
Samuel	79	1	0	Scott	79	1	0	Emily	3	77	0	Emma	3	77	0
Stanley	79	0	1	Victor	79	1	0	Erica	3	77	0	Lily	2	77	1
Vincent	79	0	1	William	79	1	0	Maya	2	77	1	Vanessa	3	77	0
Alexander	78	1	1	Andrew	78	0	2	Alina	3	76	1	Amanda	4	76	0
Brian	78	2	0	George	78	0	2	Gina	3	76	1	Gloria	4	76	0
Henry	78	2	0	Oscar	78	1	1	Jacqueline	3	76	1	Madeleine	4	76	0
Owen	78	1	1	Roman	78	1	1	Maria	3	76	1	Miriam	3	76	1
Ryan	78	1	1	Stuart	78	1	1	Stella	4	76	0	Victoria	4	76	0
Alan	77	2	1	Bill	77	1	2	Anna	5	75	0	Caroline	5	75	0
Fabian	77	2	1	Harry	77	2	1	Chiara	3	75	2	Joanna	5	75	0
Jackson	77	1	2	Jeffrey	77	3	0	Kathryn	5	75	0	Melanie	5	75	0
Marvin	77	1	2	Oliver	77	1	2	Miranda	4	75	1	Nina	4	75	1
Ruben	77	1	2	Sebastian	77	2	1	Patricia	4	75	1	Freya	1	74	5
Simon	77	2	1	Todd	77	0	3	Josephine	4	74	2	Veronica	6	74	0
Carl	76	4	0	Joseph	76	3	1	Amy	5	73	2	Claire	8	72	0
Lucas	76	3	1	Michael	76	1	3	Natalie	8	72	0	Cindy	9	71	0
Felix	75	1	4	Timothy	75	3	2	Hannah	9	71	0	Ida	3	71	6
Finn	74	2	4	Gary	74	5	1	Kira	6	71	3	Evelyn	10	70	0
Magnus	74	0	6	Max	74	1	5	Stephanie	10	70	0	Vera	8	70	2
Sean	74	1	5	Dennis	73	3	4	Margaret	11	69	0	Alexandra	12	67	1
Liam	73	3	4	Warren	73	1	6	Rachel	10	67	3	Charlotte	12	66	2
Jasper	71	5	4	Jeremy	70	8	2	Leah	11	66	3	Megan	14	66	0
Noah	70	4	6	Marcel	68	6	6	Chloe	14	65	1	Judith	14	65	1
Nathaniel	68	7	5	Joshua	67	10	3	Kimberly	11	65	4	Michelle	15	64	1
Julian	64	11	5	Louis	62	12	6	Bea	10	63	7	Nicole	18	61	1
Valentin	60	9	11	Maurice	57	10	13	Carmen	16	58	6	Zoe	16	56	8

7. Attention Check 2: Choose the largest number. (10 options are given.)

B Calibration of the luck factor

This section elaborates on how we determine the size of the luck factor for the adjusted performance. A subject in a group learns the relative rank of the adjusted performance, which is a number of correct answers in the Encryption Task multiplied by a random (luck) factor.

It is worth noting that the governance of the luck factor increases with the variance of it. If the luck factor varies too much, then the relative rank of the adjusted performance would be merely determined by the luck factor. Meanwhile, if the luck factor varies too little, then the relative rank would be merely determined by the actual performance. That is, in terms of the linear relationship between a subject's actual rank in performance and the rank in luck-adjusted performance, as shown in Figure 1, must be between no correlation (Pure Luck) and perfect correlation (No Luck). We aimed to construct the distribution of the random variable (the luck scaling factor,) to satisfy two purposes: (1) The linear relationship between ranks in actual and adjusted performance lies in a halfway. (2) The random variable is easy enough to explain to laypeople without using math.

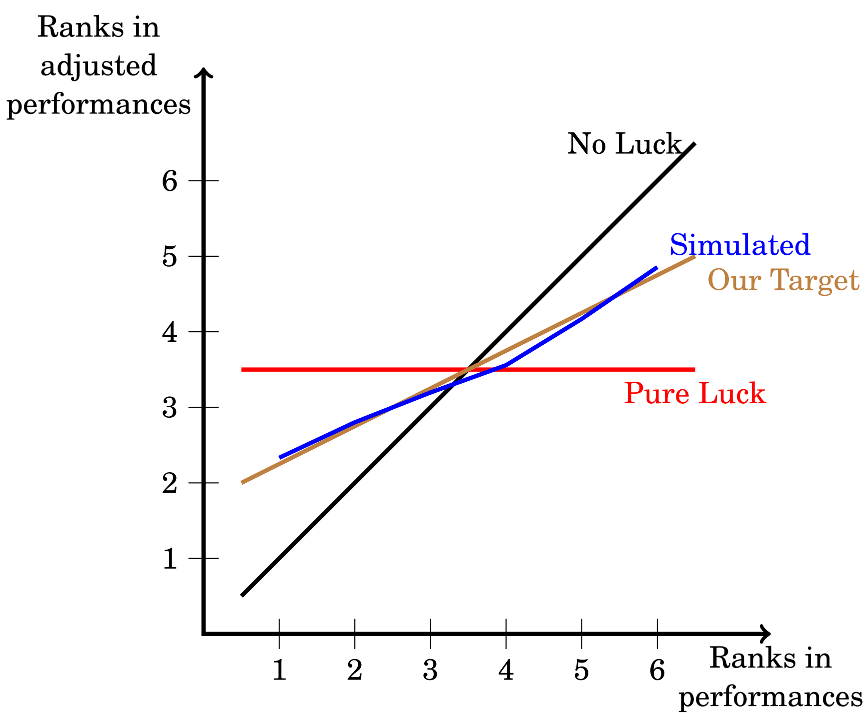

Figure 1: Simulated average ranks

To this end, we conducted a pilot test with six subjects (who are different from the experiment participants,) and learned that the average number of the correct answers in the Encryption Task for five minutes is about 25, and the standard deviation of it is about 5.2. We imagine a "representative" group which consists of six subjects whose actual performance measures are 32, 29, 27, 24, 21, and 18, respectively. For notational simplicity, denote T_r is the actual performance of subject r. To simulate the relationship between the ranks in actual and adjusted performances, we performed the following simulation:

1. Pick two parameters, $\alpha, \beta \in \mathbb{R}^2_+$.
2. Calculate the simulated ranks in adjusted performance. Initiate iteration index $t = 1$.
   - For each iteration $t \leq 500$,
   - draw a number from a discrete uniform distribution between 1 and 6 for each subject r, denoted by d_r^t,
   - calculate $A_r = T_r \times [\alpha + \beta d_r^t]$ for all $r = 1, 2, \ldots, 6$, and
   - record the relative rank of subject r, denoted by R_r^t.
   - Repeat the above steps with $t \Leftarrow t + 1$.
3. Check if $\frac{\overline{R}_6 - \overline{R}_1}{6-1} \in [0.5 - tol, 0.5 + tol]$, where $\overline{R}_r = \frac{1}{500}\sum_{t=1}^{500} R_r^t$ and $tol > 0$ is a small tolerance level.
   - If $\frac{\overline{R}_6 - \overline{R}_1}{6-1} \notin [0.5 - tol, 0.5 + tol]$, repeat from Step 1 with new parameters α and β.

After numerous simulations, we find $(\alpha, \beta) = (2, 1)$ reasonably achieves our goals—see blue line in Figure 1. This is how we ended up with [dice + 2] as a scaling parameter.