

Using (Merit-Based) Default to Reduce Gender Gaps in Contribution of Ideas: Evidence from an Online Experiment

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Background

Women are under-represented in many domains.

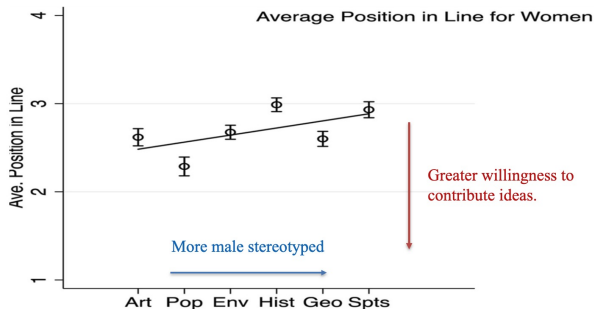
- ▶ 44.3% of labor force in S&P 500 companies are women, only 25.1% executive/senior-level managers are female.
- ▶ The gender divide is more dramatic in male-stereotyped industries (STEM).

Greater Gender Pay Gap if Women are Under-represented.

Willingness to Contribute and Stereotype

- ▶ Gender gap in willingness to contribute ideas is an important factor in explaining the under representation of qualified women. (Babcock and Laschever, 2007; Coffman 2014).

- ▶ Stereotype affects women's willingness to contribute. (Coffman 2014; Chen and Houser 2019)



Motivation

How to reduce the gender gap in contribution of ideas?

- ▶ Increasing pressure to adopt diversity programs – Lack of evidence
- ▶ Training programs – Limited effect
- ▶ Instructive mechanisms such as quotas – Questionable in their effectiveness



What else can we try to encourage women to contribute more to a group?



Default Choice

“You can choose
your subjects.
But I’ve put you
down for studying
economics.”

- “OK.”

Default Effect

- ▶ People generally **stay with** the pre-selected choice significantly more frequently.
- ▶ Widely used technique in environment, consumer, and healthrelated domains.
- ▶ Erkal et al. (2022): opt-out mechanism mitigates the gender gap in participating leadership selection.

Merit-based or Random-assigned?

- ▶ Individuals react differently toward merit and luck.
- ▶ More willingness to redistribute, steal, lie, and bargain in luck-based mechanisms. (Cappelen et al., 2007; Gravert, 2013; Kajackaite, 2018 ;Cherry et al., 2002)

Merit Defaults on Contributing Ideas

Only high-qualified individuals are defaulted to contribute.



Enhancing the default effect

- ▶ Stay with pre-selected options more when deserving the positions.

Building confidences

- ▶ Being defaulted indicates high ability \Rightarrow mitigates stereotype effect.

Promoting the right leader

- ▶ Defaults matched with performances.

Research Questions

- ▶ Can default options promote greater willingness to contribute ideas?
- ▶ Whether merit-default is more effective? What is the mechanism behind it?
- ▶ Can the default option mitigate the stereotype effect on the contribution of ideas?

Experimental Task

Three parts with a questionnaire (Coffman (2014) and Chen and Houser (2019))

- ▶ Part A – 30 MCQs from 6 categories with varying gender stereotype. Individual task.
- ▶ Part B – New 30 MCQs with willingness to contribute elicitation. Group task in pairs.
- ▶ Part C – Confidence elicitation for questions answered in Part B. Individual task.

Experimental Task - Part A

Part A - Question 1 of 30

DIS: Finish the lyrics from Aladdin: "I'm like a shooting star, I've ____" My answer is:


- ☐ Come to shine
- ☐ Come so far
- ☐ Danced across the sky
- ☐ Got a whole new world
- ☐ Lived the night sky

Next

Experimental Task - Part A

Part A - Question 1 of 30

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Next

Experimental Task - Part B

Part B - Question 10 of 30

SPORTS&GAMES: Which of these NHL teams is from New Jersey? My guess is:

- ☐ Ducks
- ☒ Flames
- ☐ Devils
- ☐ Jets
- ☐ Rangers

My position in line is:


- ☐ 1
- ☐ 2
- ☒ 3
- ☐ 4

Next

Experimental Task - Part B

Part B - Question 10 of 30

SPORTS&GAMES: Which of these NHL teams is from New Jersey? My guess is:

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Next

Experimental Task - Part C

Part C - Question 25 of 30

KARD: Who has Khloe Kardashian been married to? My guess was:

- ☒ Lamar Odom
- ☐ French Montana
- ☐ Jonathan Cheban
- ☐ Kanye West
- ☐ Kobe Bryant

I think the chance of my answer being right is ____ %. The randomly-drawn robot should answer for me if its accuracy is greater than that.

I think the chance of my other group member's answer being right is ____ %. The randomly-drawn robot should answer for me if its accuracy is greater than that.

Next

Experimental Task - Part C

Part C - Question 25 of 30

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Four Treatments

Treatment differs only in Part B

- ▶ Control – No default or feedback
- ▶ Merit default

Default to 1 for all five questions if performs better (or equal) in that category

Default to 4 otherwise

- ▶ Random default (No feedback)
- ▶ Random default (Feedback)

Treatments with Defaults

Part B - Question 4 of 30

KARD: What is the name of the Kardashian's clothing store? My guess is:

- ☐ Kardashian
- ☐ KimKloKourt
- ☒ Kar Clothes
- ☐ KUWTK
- ☐ Dash

My position in line is:

- ☒ 1
- ☐ 2
- ☐ 3
- ☐ 4

Next

Treatments with Feedback

Part A Performance Feedback

Category	Best Performer
Art & Literature	Your group member
Cars	Your group member
Disney movies	You
Kardashians	Your group member
Sports	Your group member
Videogames	Your group member

Experimental Procedure

- ▶ Online experiment, July – Aug, 2023.
- ▶ Carried out on Prolific.
- ▶ 804 subjects. 52% female, average age 35.
- ▶ One-to-one matching. The first wave (402 subjects) experienced no defaults or feedback (pooled into Control in data analysis¹).

¹T-test and ANOVA are used for this paper.

Result 1. Pure Default Effect (Control VS. RD_NF)

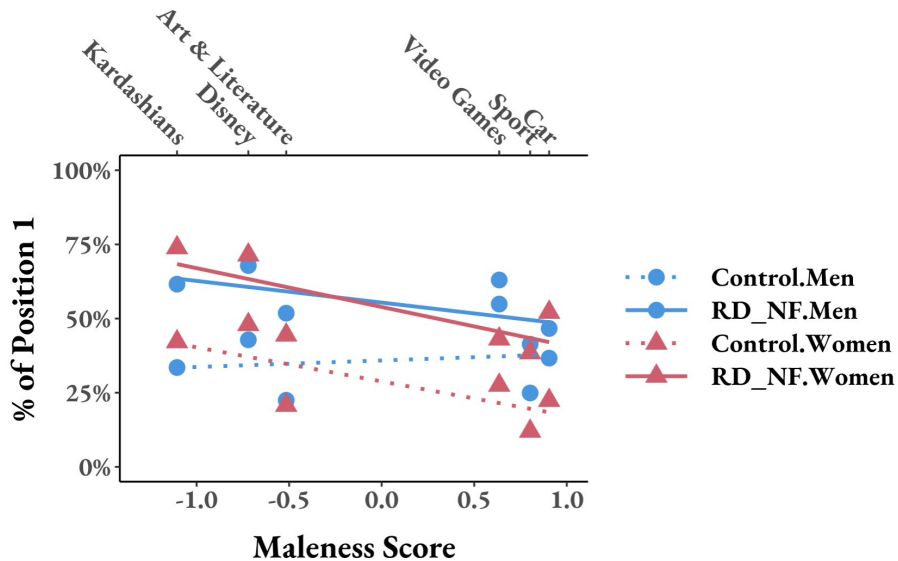
R0. Gender gap and gender stereotypes exist in Control.

- ▶ Gender gap: women choose position 1 less than men (28.82% vs. 35.86%).
- ▶ Stereotype effect: women choose position 1 less than men in male-dominated categories (26.81% vs. 48.48%).

R1. (Random-) Default option mitigates the gender gap.

- ▶ Default Effect: Both men and women choose position 1 more in RD_NF than in Control.
 - ⇒ No Gender gap: In RD_NF, women do not choose position 1 less than men (52.99% vs. 55.54%, $p = .67$).
 - ⇒ Stereotype effect exists: In RD_NF, women still choose position 1 less than men in male-dominated categories (44.02% vs. 62.24%, $p < 0.01$).

Result 1. Pure Default Effect



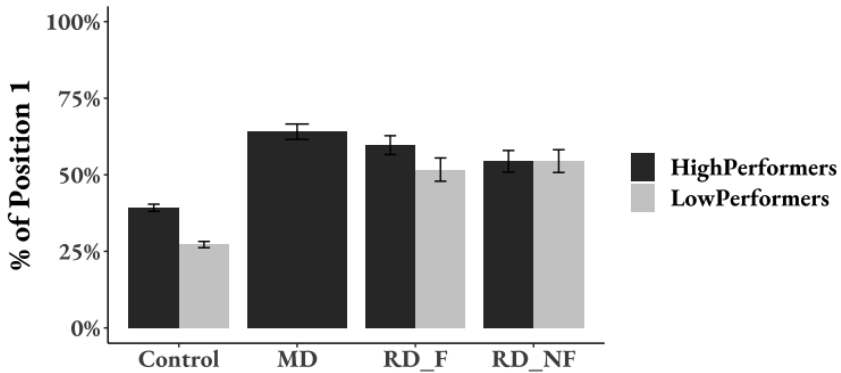
Result 2. No Merit Effect (Merit vs. RD_F, RD_NF)

R2. The merit default does not enhance the default effect

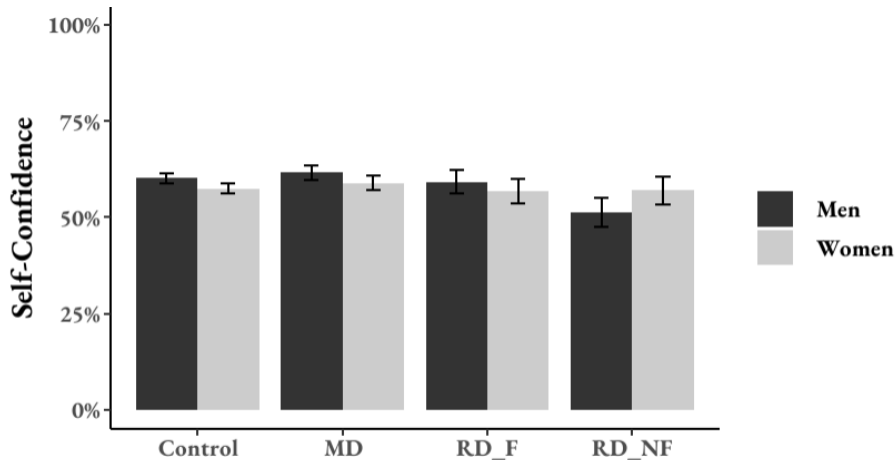
High performers: subjects in wave 2 who answer questions correctly in Part A more than or equal to their partner.

- ▶ No Merit-information effect: High performers in MD and RD_F are not more willing to contribute ideas, as compared with RD_NF (64.07% vs. 59.68% vs. 54.41%).
- ▶ No Merit-legitimacy effect: High performers in MD are not more willing to contribute ideas, as compared with RD_F.

Result 2. No Merit Effect



R3. Defaults do not affect self-confidence



Conclusion and Discussion

Default option is effective in changing people's willingness to contribute.

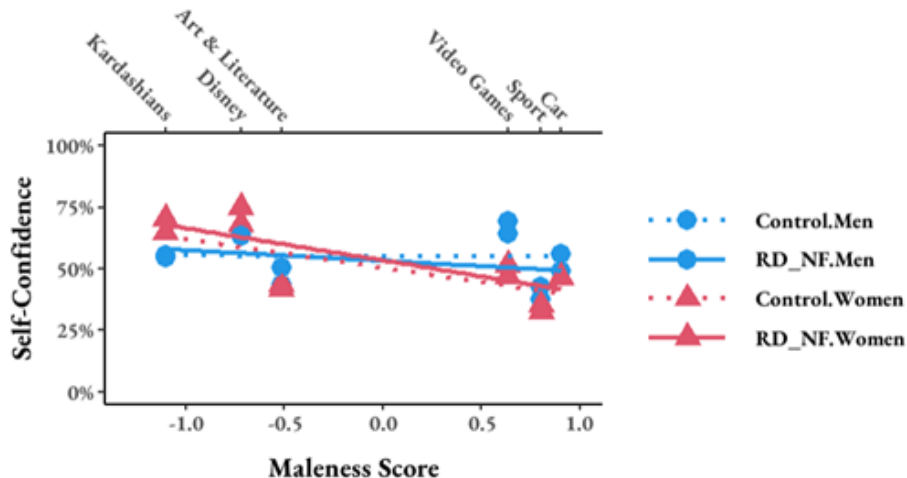
- ▶ Both random default and merit default mitigates the gender gap.
- ▶ However, the default option is ineffective in correcting the stereotype bias in the willingness to contribute.

How to mitigate the stereotype effect?

- ▶ If gender stereotype is a norm such that women should not play an active role in contributing ideas in a group, then default effects might show up in the long run.

Thank you!

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