

# Gender and Credit Taking in Scholarly Publications

## Abstract

This study explores gender differences in credit taking as a potential explanation for the gender gap in leadership through a survey of authors who published in the *Journal of Applied Psychology* and distributed credit for the publication among themselves and their coauthors. Results indicated that women were significantly underrepresented as first and second authors, but gender and group type (same-gender or mixed-gender) did not predict credit taking. Further, contrary to expectations, high levels of agreement were found within teams about who deserves what credit.

## Introduction

- Women are underrepresented as leaders
- Purpose of this study is to explore gender differences in credit taking as a potential explanation of the gender gap in leadership

### Lack of Fit Model

- Men = agentic; women = communal
- Leaders = agentic
- Expectations about person's performance are based on perceived match between person's skills and job requirements (Heilman, 1983)
- Based on stereotypes, women aren't expected to be successful leaders because they aren't agentic (Heilman, 2001)

### Credit Taking

- When working in a mixed-gender dyad on a male sex-typed task:
  - Men give themselves more credit
  - Women give their male co-worker more credit (Haynes & Heilman, 2013)
- However, when working with another woman, women give themselves more credit
- Present study extends research on gender and credit taking to teams in academia

## Method

### Participants

- 339 authors of 121 articles in *Journal of Applied Psychology* between 2009-2011
  - Male: 64%
  - Caucasian: 77%

### Measures

- Credit Taking: distributed 100% of credit among themselves and their co-authors
  - Self contribution score = percentage of credit participants assigned themselves
- Pressure to Publish: 4 questions ( $\alpha = .86$ )
- Fairness of Authorship Order: 4 questions ( $\alpha = .95$ )

## References

Haynes, M. C., & Heilman, M. E. (2013). It had to be you (not me)! Women's attributional rationalization of their contribution to successful joint work outcomes. *Personality and Social Psychology Bulletin*, 39, 956-969.

Heilman, M. E. (1983). Sex bias in work settings: The lack of fit model. *Research in Organizational Behavior*, 5, 269-298.

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57, 657-674.

James, L. R., Demaree, R. G., & Wolf, G. (1993). rwg: An Assessment of Within-Group Interrater Agreement. *Journal of Applied Psychology*, 78, 306-309.

## Hypotheses and Results

- Gender Distribution of Authorship**
  - Women were significantly underrepresented as first and second authors relative to gender distribution of sample ( $\chi^2(3, N = 339) = 8.81, p = .03$ )
  - In mixed-gender teams, the gender difference in first and second authorship is more pronounced relative to gender distribution in the sample

### Percentage of Men and Women in Each Authorship Position

	Men	Women
1st	71.3	28.7
2nd	69.7	30.3
3rd	54.7	45.3
4th	52.9	47.1

Note. Men constitute 64.3% of sample.

- Fairness of Authorship Order**
  - Women thought authorship order was more unfair than men ( $r(335) = .14, p = .01$ )

### Incremental Validities of Predictors of Self Contribution

	Predictor	Step 1 $\beta$	Step 2 $\beta$	Step 3 $\beta$	Step 4 $\beta$	Step 5 $\beta$
Step 1	Number of Authors on Manuscript	-0.07	-0.06	-0.06	-0.06	-0.06
	Authorship Position	-0.72**	-0.71**	-0.71**	-0.71**	-0.71**
Step 2	Professional Status: Other		0.02	0.02	0.03	0.03
	Professional Status: Assistant Professor		0.08	0.08	0.08	0.08
	Professional Status: Associate Professor		0.01	0.01	0.01	0.01
	Professional Status: Full Professor		-0.01	-0.01	-0.01	-0.01
Step 3	Pressure to Publish			0.01	0.01	0.02
Step 4	Gender: Male				-0.01	0.01
	Group Type: Same-Gender				-0.02	0.05
Step 5	Gender*Group Type					-0.08
	$R^2$	0.552	0.557	0.559	0.560	0.561
	$\Delta R^2$		0.005	0.002	0.001	0.001

Note. \*\* $p < .01$ . Reference category for professional status is graduate student. Professional status of "Other" is postdoctoral students, lecturers, practitioners, and visiting assistant professors.

## Conclusion

- Gender gap in leadership extended to this sample, with women underrepresented as first and second authors
- Neither gender nor group type predicted self contribution
- High levels of agreement were found within a manuscript for assignment of credit
- Women thought authorship decisions were less fair than men

- Hypothesis 1:** Women will take less credit than men only when working in mixed-gender teams, but men's self contribution score will not differ based on team composition.
  - The gender by group type interaction did not significantly predict self contribution

### Self Contribution as a Function of Gender and Group Type

	N	M	SD
Men & Same-Gender	94	0.31	0.16
Men & Mixed-Gender	124	0.32	0.16
Women & Same Gender	19	0.34	0.20
Women & Mixed-Gender	102	0.28	0.15

- Hypothesis 2:** There will be higher agreement in assigning credit for mixed-gender teams than for same-gender teams.
  - Measured with  $r_{WG(J)}^*$ , an index of interrater agreement (James, Demaree, & Wolf, 1993)
  - Same-gender teams:  $M = 0.93, SD = 0.05$
  - Mixed-gender teams:  $M = 0.92, SD = 0.07$
  - No significant difference found

- Potential reasons that predicted gender differences in credit taking were not found:
  - Teams of 3-7 rather than dyads
  - First authorship may not be considered male sex-typed by participants
  - Data was collected retrospectively after authorship order was decided
- Future research directions:
  - Study credit taking during authorship order decision process
  - Use round-robin design