Gender, Leadership and Authorship in Interdisciplinary Research Teams

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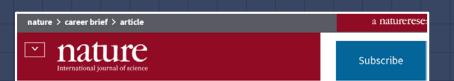
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Gender Gap in STEM

Differences between disciplines

Effects on authorship practices

Importanceto interdisciplinarity



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Gender inequality in authorship set to persist for decades

Some disciplines need to implement reforms if parity is to be achieved.



Intrapsychic Perspective

Internal characteristics of the leader



Leadership Styles

Women Men

Focus on relationships and sharing

O

Focus on completing tasks and achieving goals

Emphasize the process



Emphasize theproduct

Support contributive, consensual decision making



Support the majority rule with rewards and punishments

Facilitative leadership



Lead from the front

Social Structurerspective

Role and status in society



Do rank and gender dynamics impact publication productivity?

Data Collection

Team Survey

NSF-funded interdisciplinary environmental scienceteams

Demographics, disciplines, diversity, leadership, authorship, inclusion, satisfaction

Publication Search

All publications resulting from team collaborations, publically available on NSF website

Project PIs, number of coauthors, gender of first and last authors

RESULTS

118 participants from 32 research teams

337 publications between 2006 and 2018

Intrapsychic Perspective

Internal characteristics of the leader

Do personal values and leadership characteristics differ between genders?

Leadership Styles



Transformational vsTransactional Leadership

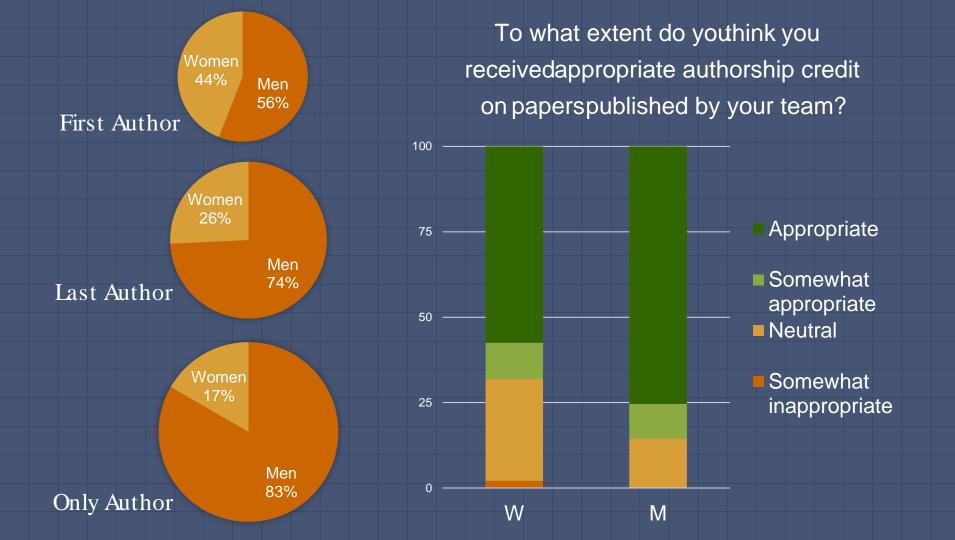
Not gender based traits, but chosen behaviors

Do these behaviors impact team outputs?

Social Structurerspective

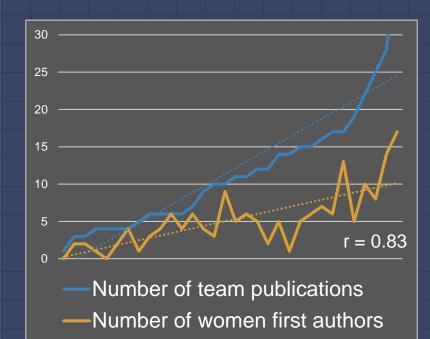
Role and status in society

Are gender roles apparent in the outputs of interdisciplinary teams?



Impacts on productivity and authorship

NO correlations between proportion of women leaders, total publications, total coauthors, female first authors, disciplines represented, or any survey results such as overall team satisfaction



except total publications significantly correlated with total women first authors

CONCLUSIONS

Differences in leadership behaviors Unequal credit on publications No correlation of output variables

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Exploration of leadership behaviors

Perceptions of roles compared to actual tasks and duties

Qualitative assessment of stereotyping within teams

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Selected References

Ayman, R. and Korabik, K. 2010. Why gender and culture matter *American Psychologist*.

Eagly, A. 2007. Female advantage and disadvantage: resolving the contradictions. *Women's Psychologyuarerly*

Growe, R. and Montgomery, P. 2000. Women and the leadership paradigm: bridging the gender gap.

Settles, I., Brassel, S., Soranno, P., Cheruvelil, K., Montgomery, G., Elliott, K. In Review. Team climate mediates the effect of diversity on science team satisfaction and data sharing.

THANK YOU!

Any questions?



Connect with me!

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