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Inclusion Really Does Matter: Understanding and Improving attitudes towards gender equality initiatives in STEM

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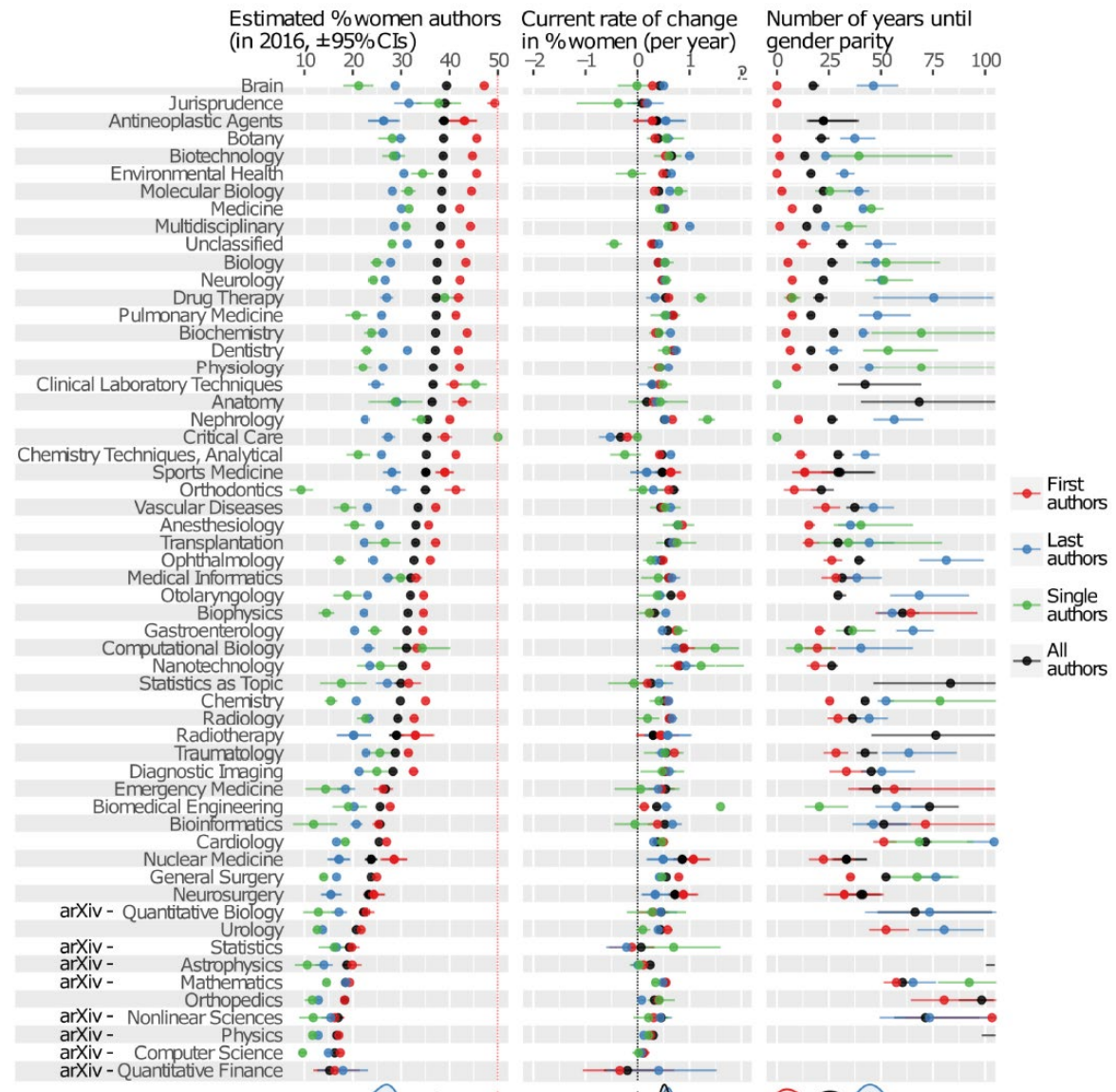


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Background

Gender Equality Initiatives in academia are becoming prevalent in the last few years/decades

However, progress is slow (Holman et al., 2017)



Background

Increasing diversity can generate negative cognitive, emotional, and behavioural responses (e.g., Craig & Richeson, 2014)

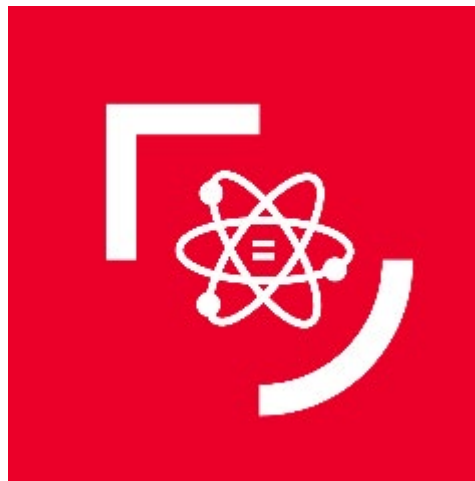
Diversity initiatives can have unintended negative consequences (Kaiser et al., 2013, Kirby, Kaiser & Major, 2015; Dover, Major & Kaiser, 2014)

Similarly, academic gender equality initiatives are often met with negative attitudes (Ovseiko et al. 2017, Tzanakou et al. 2019), leading to less support from academics



Project

EPSRC Inclusion Really Does Matter



@QUBIncMatters

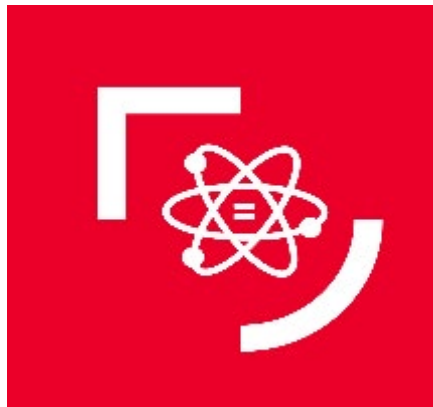


EPSRC Inclusion Really Does Matter

Main goals

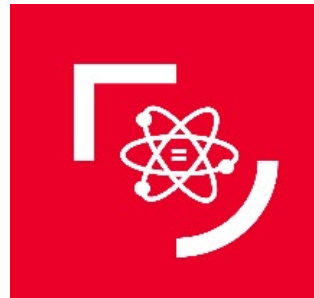
- (1) to **understand** the factors that make gender equality initiatives (**GEI**) more or less effective
- (2) to **build training tools** aimed at improving attitudes towards equality diversity initiatives

6 experimental studies on STEM academics



Project Overview

- Part 1: Content of Gender Equality Initiatives (4 studies)
- Part 2: Framing of Gender Equality Initiatives (2 studies)





Inclusion Matters: Study 1 (Content)

Research question: What should be the content of GEIs if we want to engage male STEM academics?

N = 72 male STEM academics (VR, lab-based)

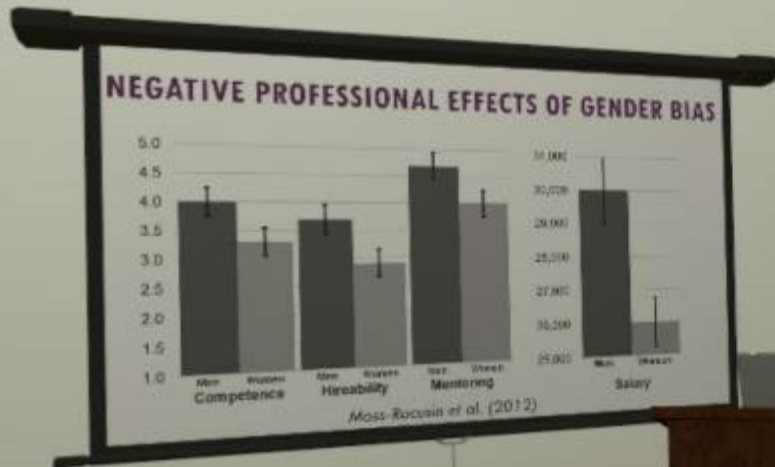
Factors:

1. evidence based information about gender bias
2. perspective-taking with female academics

Inclusion Matters: Study 1



Inclusion Matters: Study 1





Inclusion Matters: Study 1



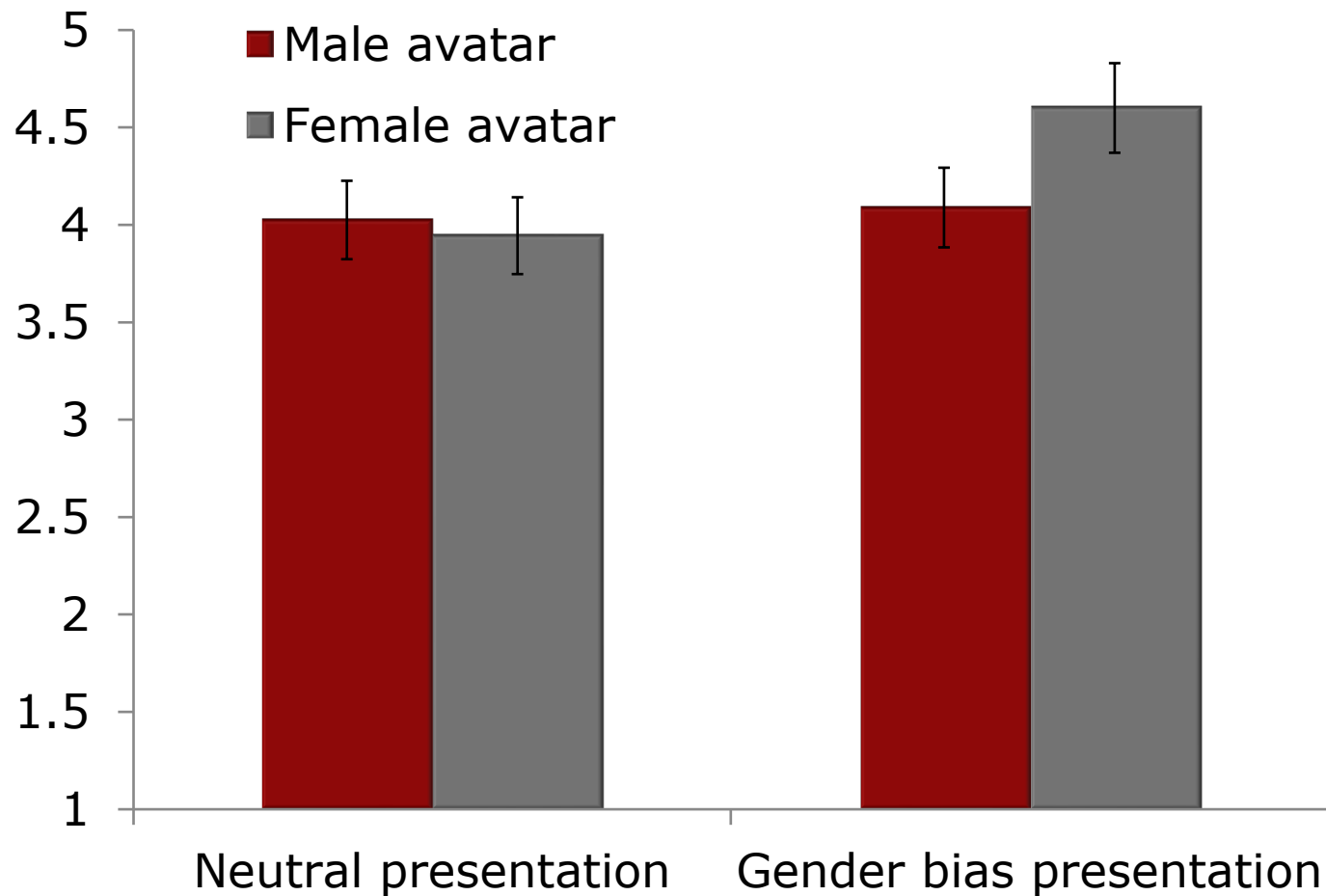
Inclusion Matters: Study 1





Inclusion Matters: Study 1.

Explicit attitudes

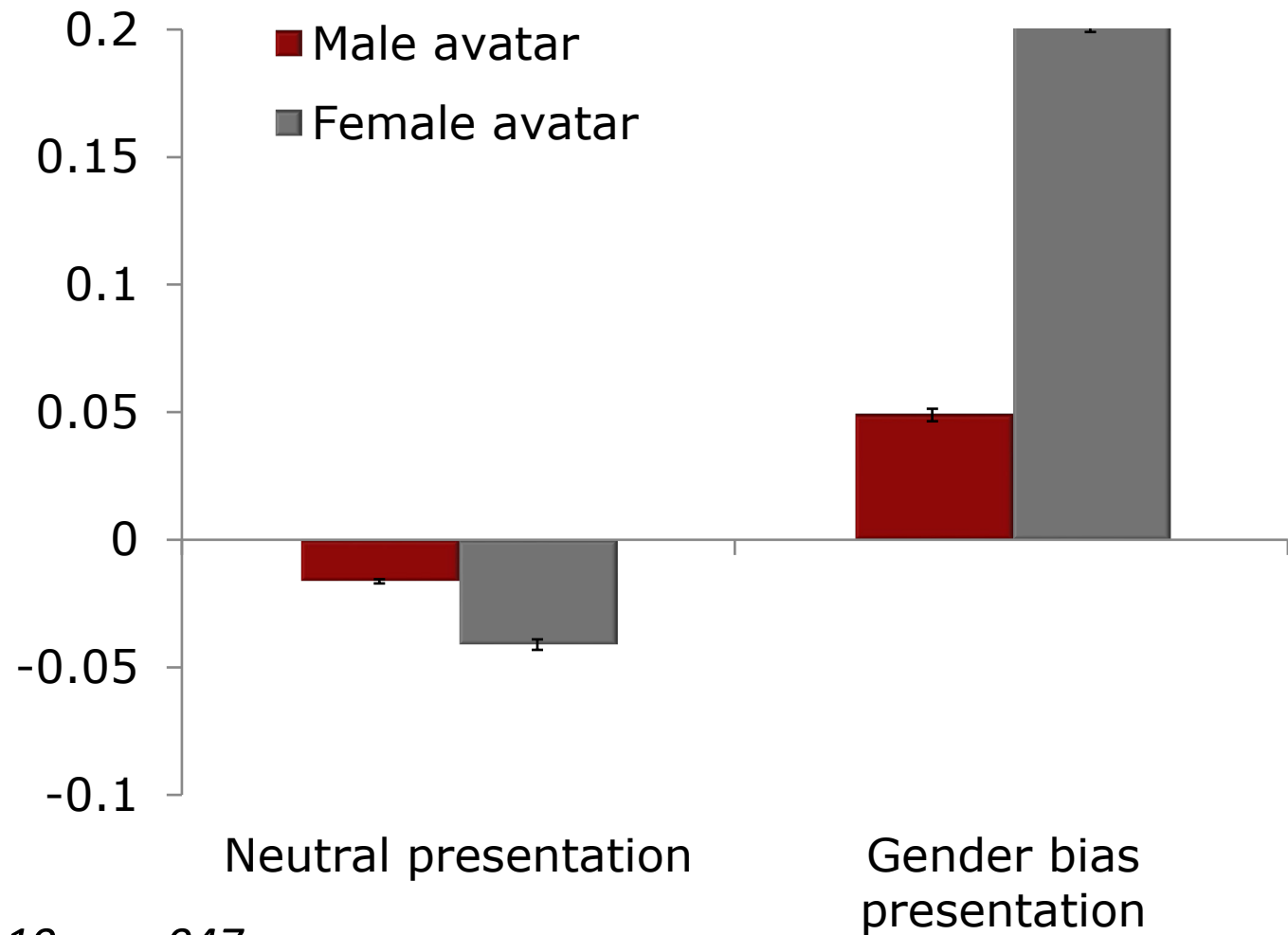


$F(1, 68) = 4.25, p = .043.$



Inclusion Matters: Study 1

Implicit Attitudes

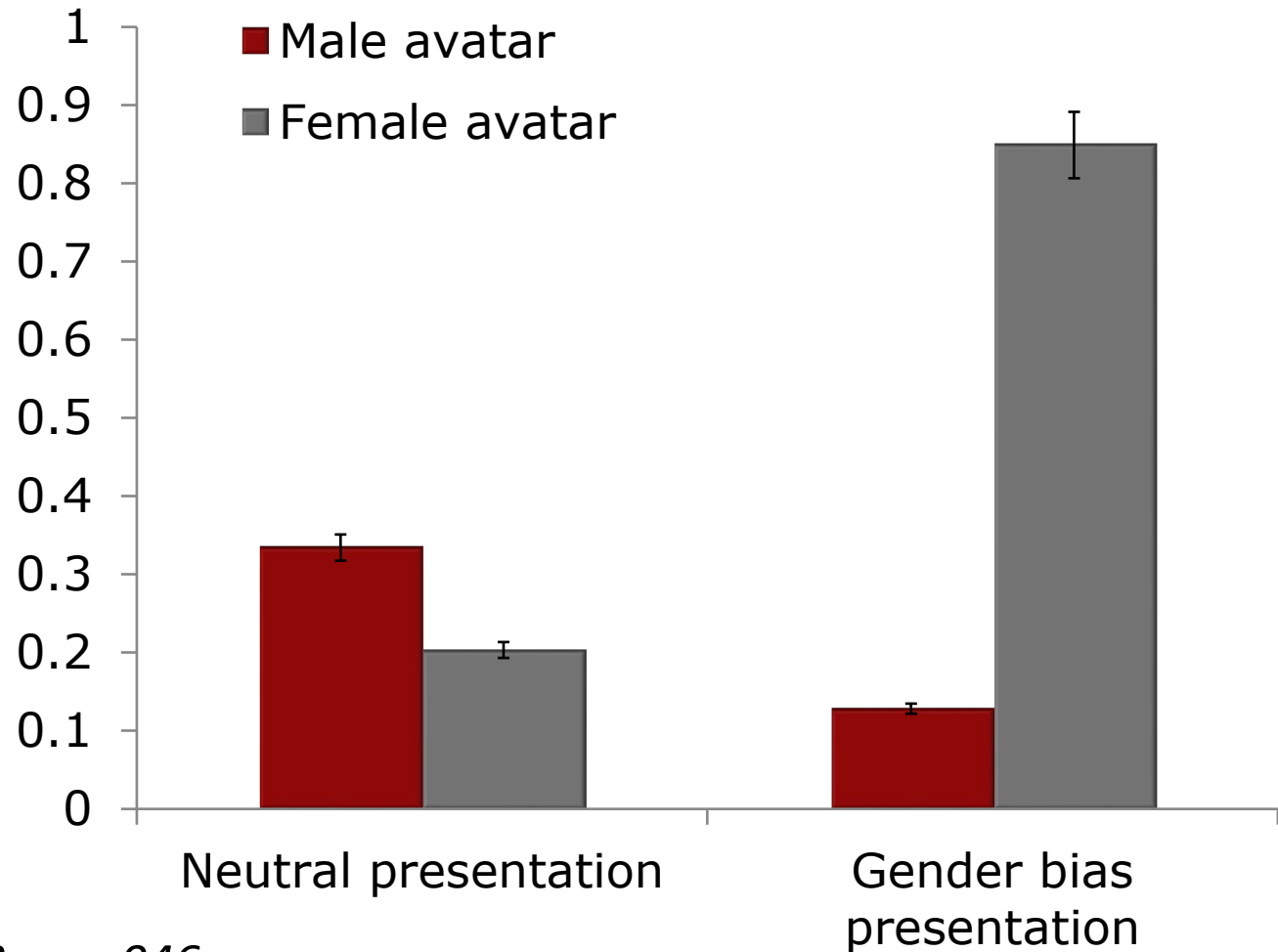


$F(1, 68) = 4.10, p = .047.$



Inclusion Matters: Study 1

Electrodermal Activity (Arousal)



$F(1, 66) = 4.13, p = .046.$



Inclusion Matters: Study 2 (Framing)

Research Question

What are the important factors in how a Gender Equality Initiative (GEI) is *described or framed* that promote more positive attitudes & support? (online study)

N = 116 (men and women), online

Factors:

1. Impact of GEI focus (GEI described as benefitting Women only or Women & Men) and/or
2. GEI leadership (GEI led by a female or male) on attitudes towards GEIs

Inclusion Matters: Study 2 (Framing)

Read a fictitious email describing a
University GEI

Randomly assigned to 1 of 4 conditions:

Female-led, benefitting Men & Women;
Female-led, benefitting Women only;
Male-led, benefitting Men & Women;
Male-led, benefitting Women only

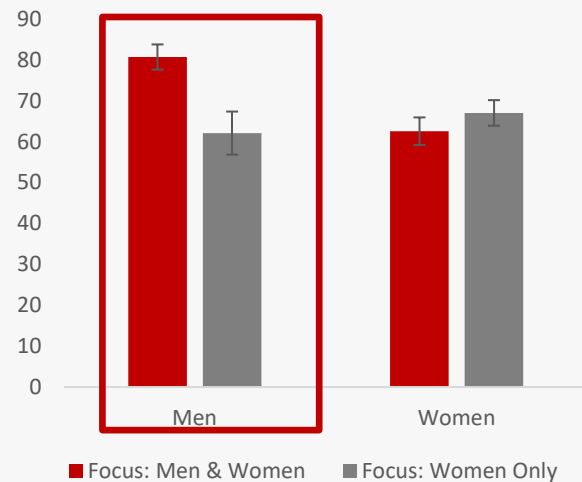
Completed
Self-report attitudinal questionnaires;
GEI attitudes Implicit Association Test
(IAT)

Inclusion Matters: Study 2 (Framing)

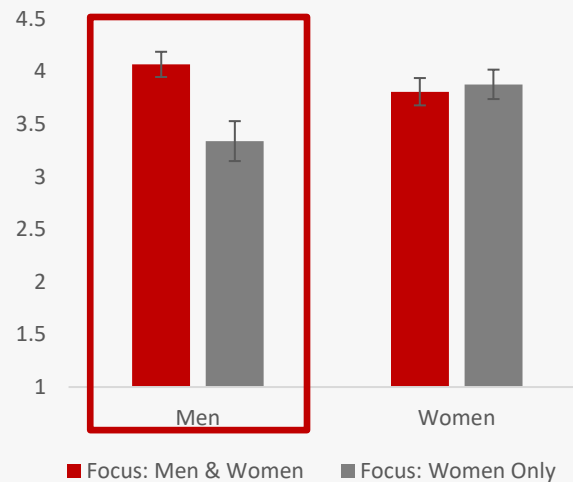
2 (GEI focus) x 2 (GEI leadership) x 2 (Participant Gender) ANOVA

Focus x Gender, $p's < .03$

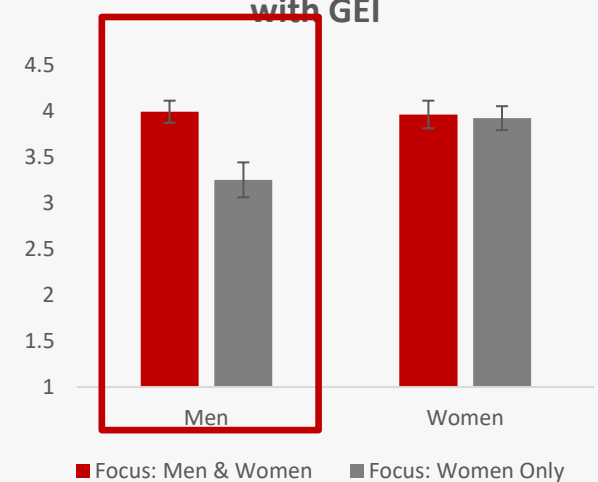
GEI Positivity



Support



Internal Motivations to Engage with GEI

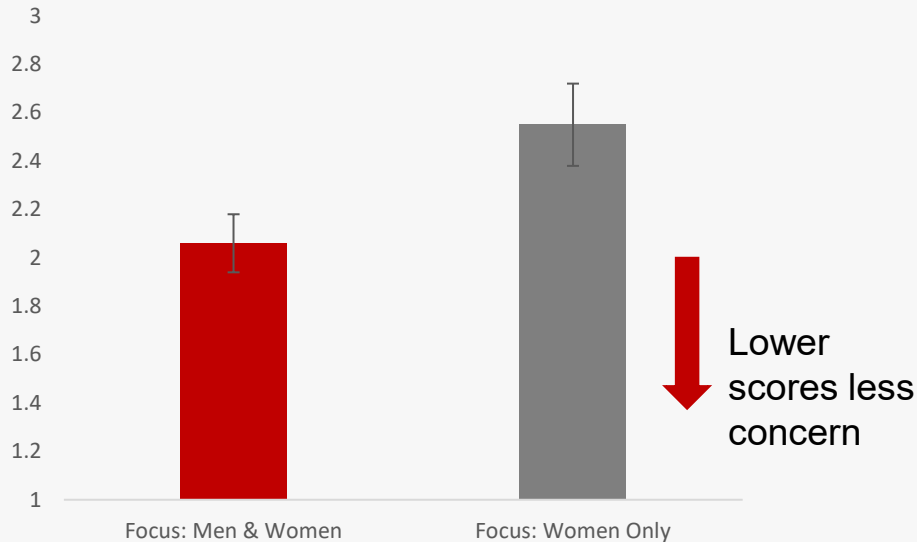


Men:

More positivity, support & internal motivation to engage with the GEI when benefitted men & women

Inclusion Matters: Study 2 (Framing)

Anti-Men Discrimination

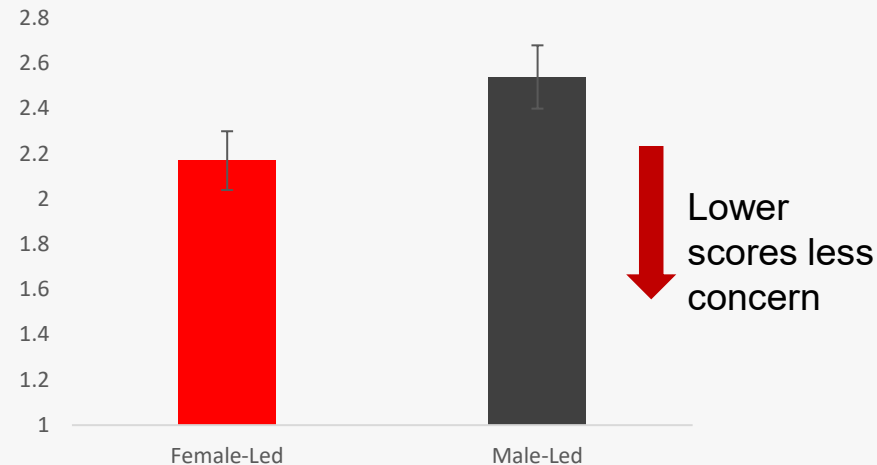


All Participants:
Less concerns of anti-women discrimination when GEI led by a woman
 $p = .02$

All Participants:

Less concerns of anti-men discrimination when GEI benefitted men & women
 $p = .01$

Anti-Women Discrimination



Inclusion Matters: Study 2 (Framing)

- More **inclusive focus** particularly effective at increasing men's positivity and support
 - Perhaps less threatening to men's social group²
- GEIs cannot rely solely on making a case for how they will benefit men³
- **Female-led GEIs** may be important for engaging women
 - Female leadership may feel more authentic given positive impact of female role models⁴
 - Concern about women taking on this work disproportionately -> this work should be clearly recognized and awarded for promotion and progression

²Moscato, S et al. (2012). A mediation model of individual differences in attitudes toward affirmative actions for women. *Psychological reports*.

³Flood M et al. (2018). *Resistance and backlash to gender equality: An evidence review*.

⁴Lockwood, P. (2006). "Someone like me can be successful": Do college students need same-gender role models? *Psychology of Women Quarterly*.



Inclusion Matters: Study 3 (Framing)

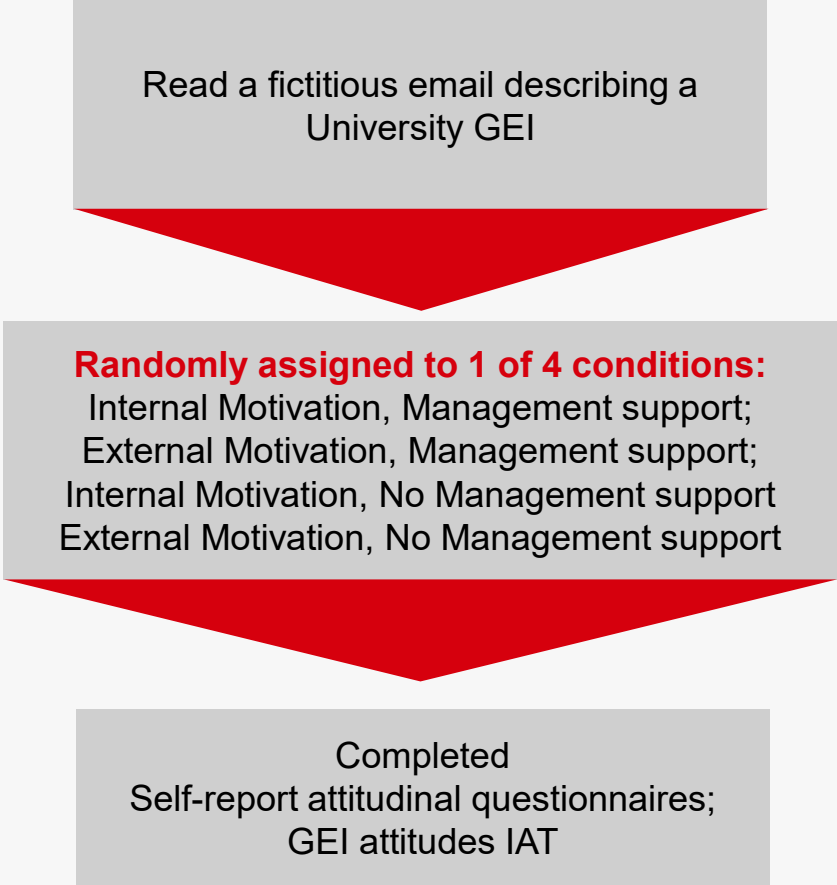
N = 152 STEM staff (men and women), online

Factors:

1. GEI motivation (Internally motivated or Externally motivated GEI)
2. GEI support (GEI supported by University or not) on attitudes towards GEIs

Inclusion Matters: Study 3 (Framing)

Read a fictitious email describing a
University GEI



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graph TD; A[Read a fictitious email describing a University GEI] --> B[Randomly assigned to 1 of 4 conditions: Internal Motivation, Management support; External Motivation, Management support; Internal Motivation, No Management support; External Motivation, No Management support]; B --> C[Completed Self-report attitudinal questionnaires; GEI attitudes IAT];
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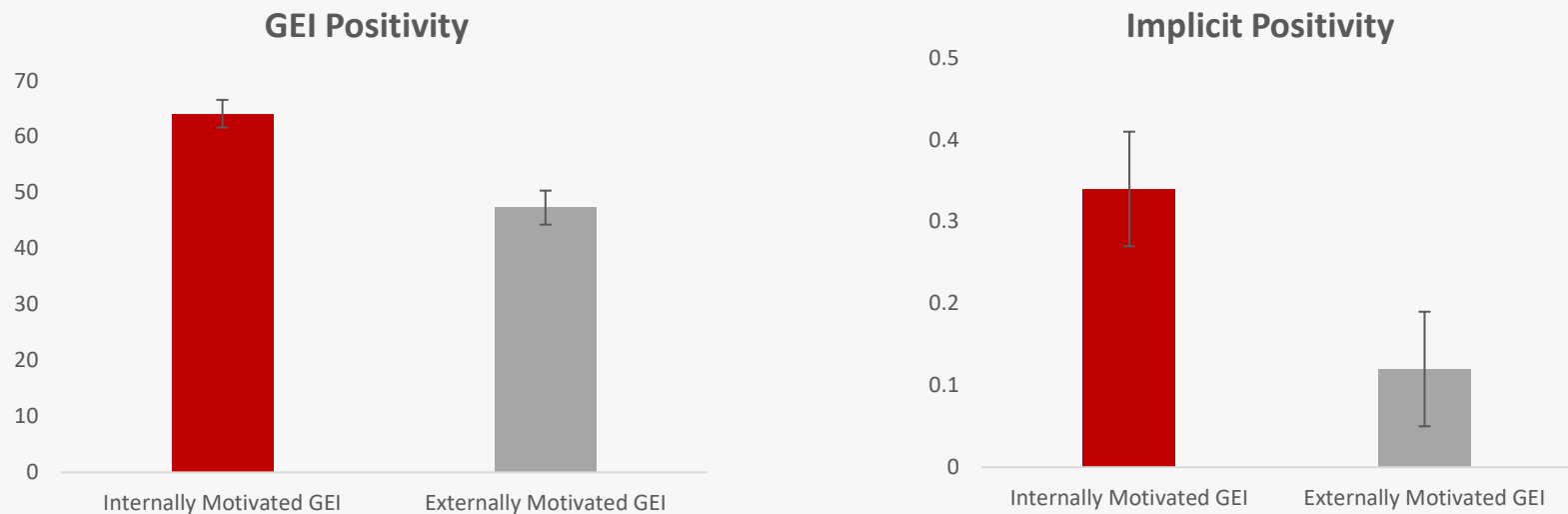
Randomly assigned to 1 of 4 conditions:
Internal Motivation, Management support;
External Motivation, Management support;
Internal Motivation, No Management support
External Motivation, No Management support

Completed
Self-report attitudinal questionnaires;
GEI attitudes IAT

Inclusion Matters: Study 3 (Framing)

2 (GEI Motivation) x 2 (Management Support) x 2 (Participant Gender) ANOVA

Motivation, $p's \leq .02$



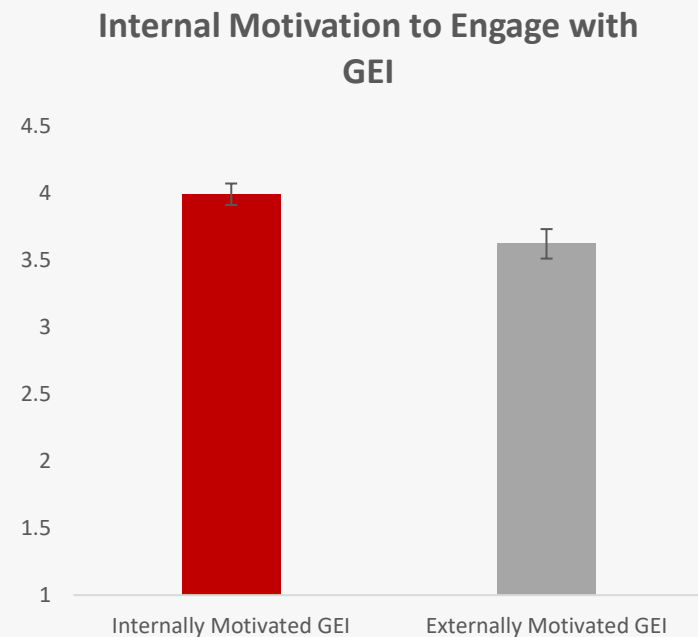
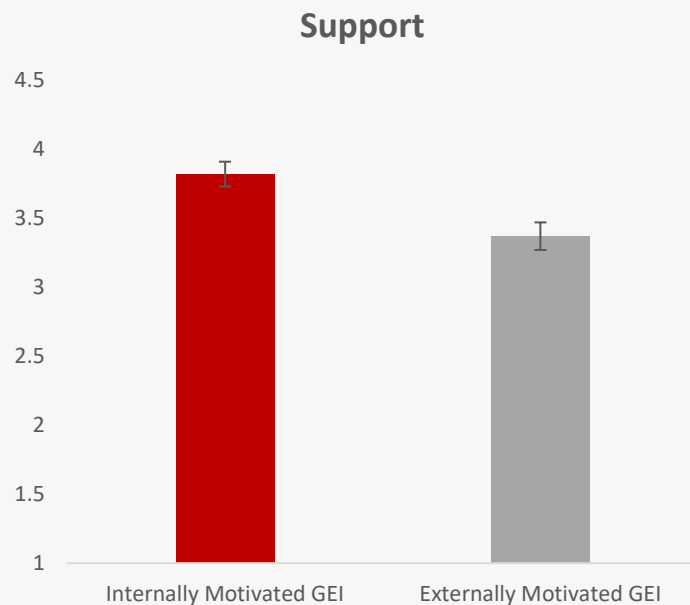
Internally Motivated GEIs:

More self-reported and implicit positivity towards GEI reported regardless of participant gender



Inclusion Matters: Study 3 (Framing)

Motivation, $p's \leq .006$

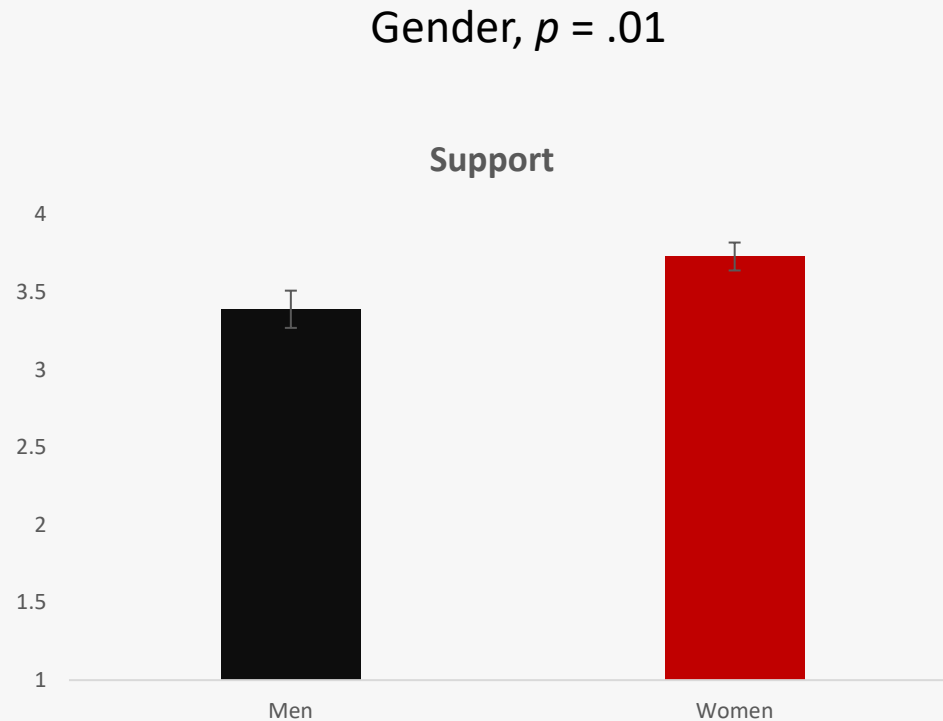


Internally Motivated GEIs:

More support and internal motivations to engage with the GEI



Inclusion Matters: Study 3 (Framing)

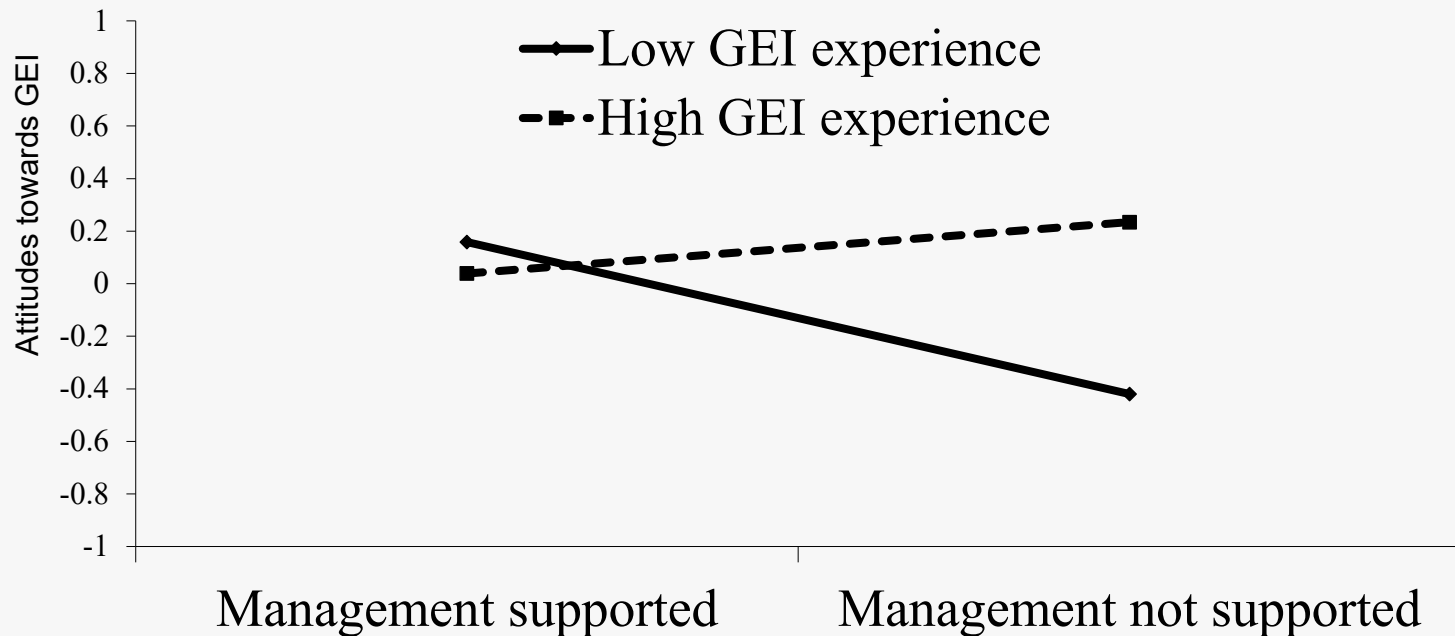


Gender:

Women were more supportive of GELs regardless of condition

Inclusion Matters: Study 3 (Framing)

Multiple regression analysis,
Management support x GEI experience, $p = .024$



Management support:

Less GEI experience – More negative attitudes when GEI not supported by management
More GEI experience – No relationship between management support and GEI attitudes



Inclusion Matters: Conclusions

- **Internally motivated** GEIs most effective at increasing positive GEI attitudes and support regardless of gender
- **Women** more supportive of GEIs than men in general
- **Management support** may be seen as proxy for effectiveness among those with less GEI experience

More information about the project

**PROJECT FINDINGS &
RESROUCES**



Thank you!
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