Gender and Leadership: Insights from Experiments

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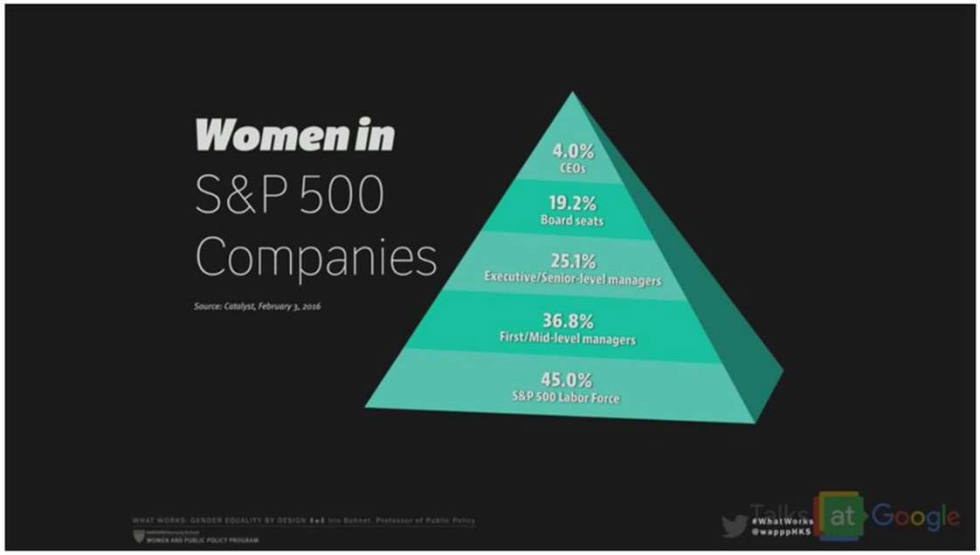
(Missing) Women at the Top of organizations



- Some 95% of CEOs are male, as are 98% of the self made billionaires on the *Forbes* rich list and 93% of the world's heads of government.

- In popular films fewer than a third of (speaking) characters are women, more than three quarters of the protagonists are men.

-The Economist: 2015; Catalyst: 2017

ROADMAP

- Share insights from three projects: each uses a behavioural lens

- Impact of diversity on group decision making
  - Evidence from a Lab Experiment

- What kind of inclusive policies should one implement to reduce gender gaps in leadership?
  - Affirmative action?
    - Evidence using a Field Experiment
  - Changing the default?
    - Opt-in versus Opt-out: Lab Evidence

Gender, Beliefs and Coordination with Externalities

Tim Cason (Purdue)
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Group Decision Making and Gender

- Most (important) decisions made by organizations are made by groups, such as committees and boards.

- Decisions made by such committees are in part determined by preferences and characteristics of their individual members.
  - Gender is an important and salient characteristic.
  - Gender diversity could affect group norms and coordination.
    - Gender differences in preferences (Eckel & Grossman, 2008; Niederle & Vesterlund, 2007; Croson & Gneezy, 2007)

Gender Composition of Groups

- Gender diversity as an explicit policy choice..
  - Corporate Sector
    - Norway (2005) mandates publicly listed firms to have at least 40% female directors
    - Similar policies in Belgium, Iceland, Italy, Malaysia, Netherlands, Spain
    - California: Corporate boards to require a quota.
  - Political arena
    - 8 EU member states have legislated electoral gender quotas. So has India.
    - Many political parties have voluntary gender quotas in EU and Australia.

..yet not much concrete evidence on how gender composition affects group decisions.

Coordination Game with Externalities

- An important and large subset of decisions made by groups impose externalities on some passive external parties
  - E.g., corporate board decisions impacting economic and social inequality (employment conditions, CSR)

- We study group decisions in a coordination game with externalities (Bland & Nikiforakis, 2015)
  - Coordination games: useful paradigm (e.g., Brandts, Cooper & Weber, 2015; see Cooper & Weber 2017 survey)
  - Gender composition can affect coordination.

Key Questions

- Does gender composition affect group's choices and beliefs over selfish and prosocial options (towards external party)?
  - Exogenous variation of gender composition in the experiment allows for direct causal inferences
  - Easier to define counterfactuals
  - Other empirical approaches: key variables are difficult to quantify

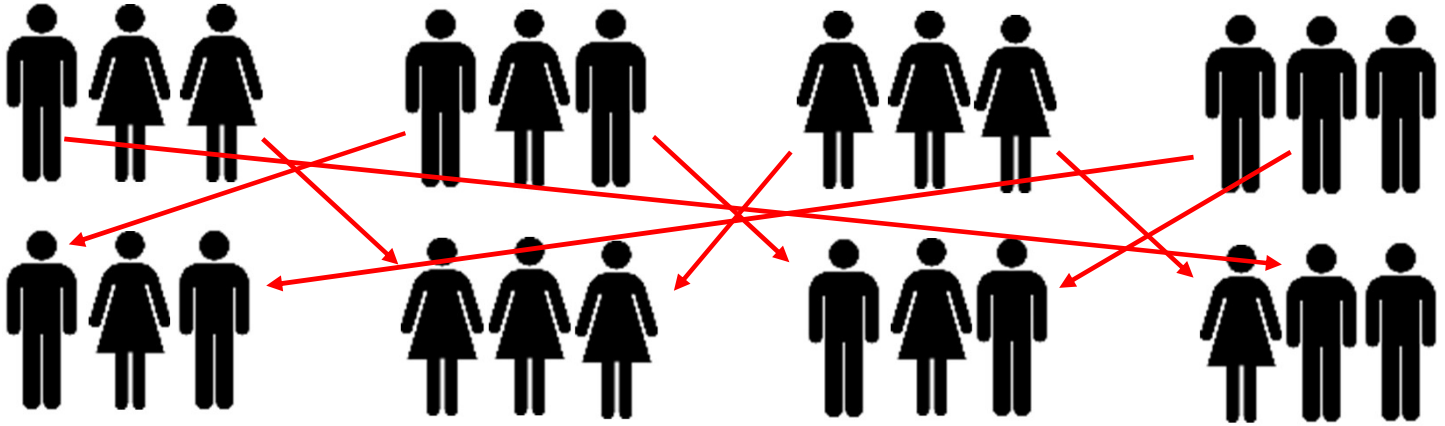
- How does communication affect such group decisions?

Design: Coordination Game

- Three group members (labeled C) play a coordination game, with two options:
  - Coordinating on the UNKIND-TO-Z choice gives them a higher payoff, but considerably reduces payoff to a fourth person--an external party labeled Z
  - Coordinating on the KIND-TO-Z choice lowers group members' pay modestly but substantially benefits the external party Z
  - Any mis-coordination leads to payoff of 0 to everyone

All 3 C choices Unkind	**All 3 C choices Kind**	**Any C choices unmatched**
All C's earn 7 each	All C's earn 5 each	All C's earn 0 each
Z player earns -16	Z player earns 4	Z player earns 0

Multiple Rounds with New Groupings and Payoffs



Round 1

Round 2

.
.
Etc.
.
.

Round 12

Ordering of different gender groupings and payoffs in the coordination games **randomized** across sessions

Can Gender Composition of groups affect equilibrium selection?

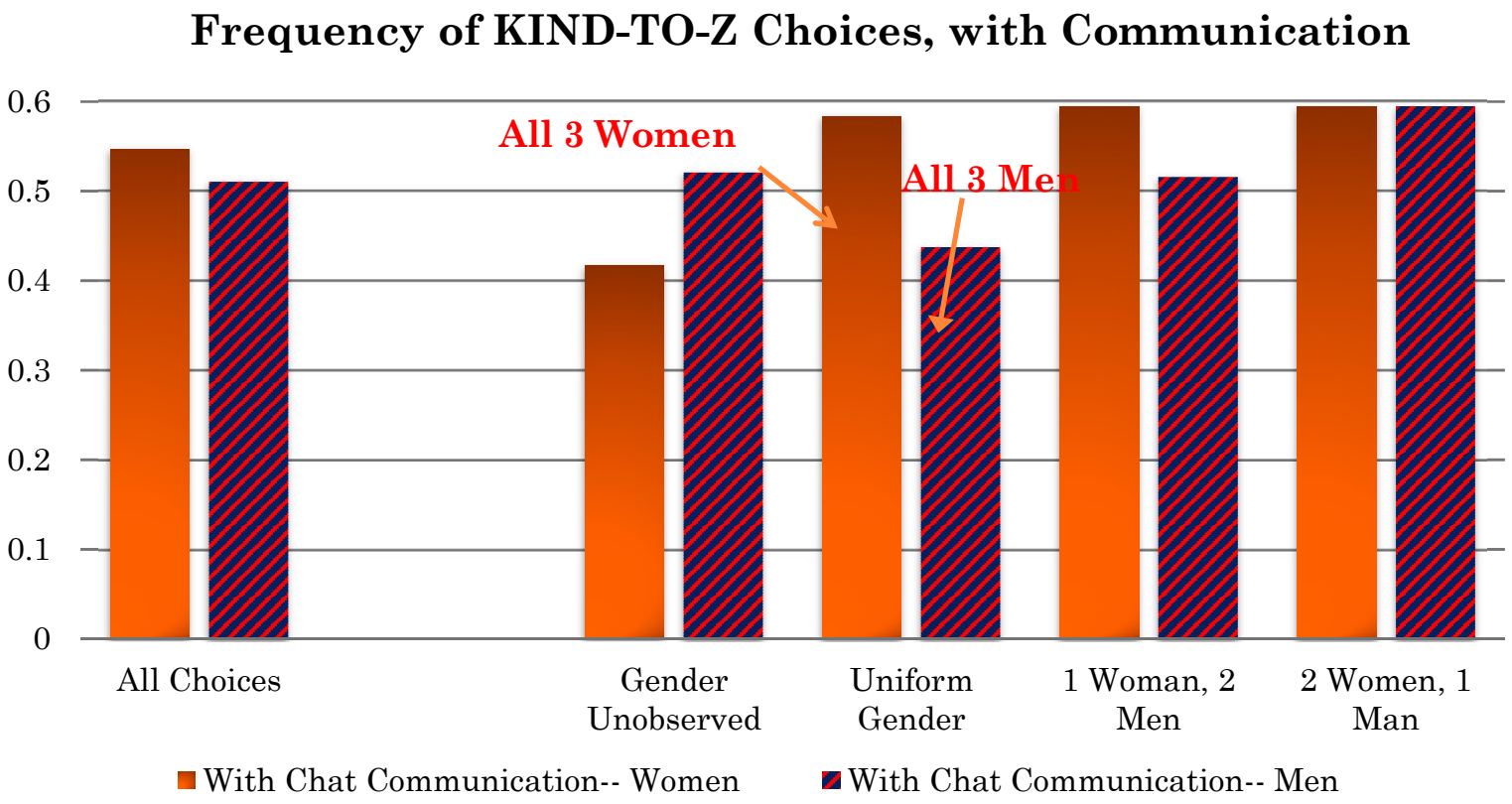
COMMUNICATION

- Group members can chat (60 seconds): anonymous, free-form, non-binding
  - Allows group members to consult and advise each other prior to coordination game choice
- Does communication increases coordination and do groups coordinate more often on the pro-social outcome?

Gender Composition & Coordination

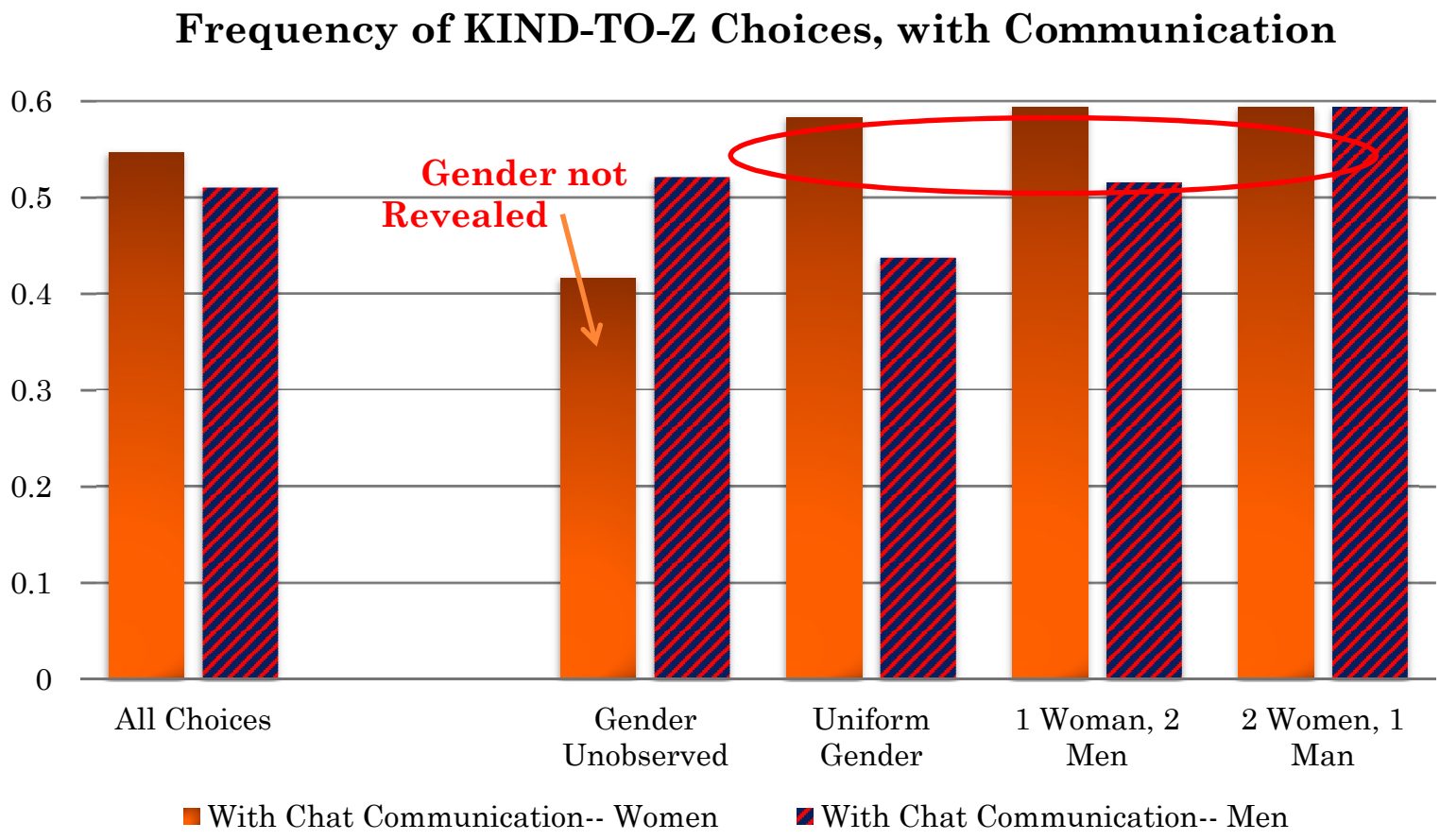
- *If* pro-social preferences are sufficiently strong, *and*
- participants expect women to be kind more often than men, *then*
- a KIND coordination game choice is more often optimal in a group with more women.

Results: Coordination Game



- Women make kind choices more frequently than men.
- All women groups more likely to make kind choices as compared to all-men groups.
- Monotonic relationship between kind choices and number of women in group: for men.
- Fewer KIND choices without communication (p-value=0.058)

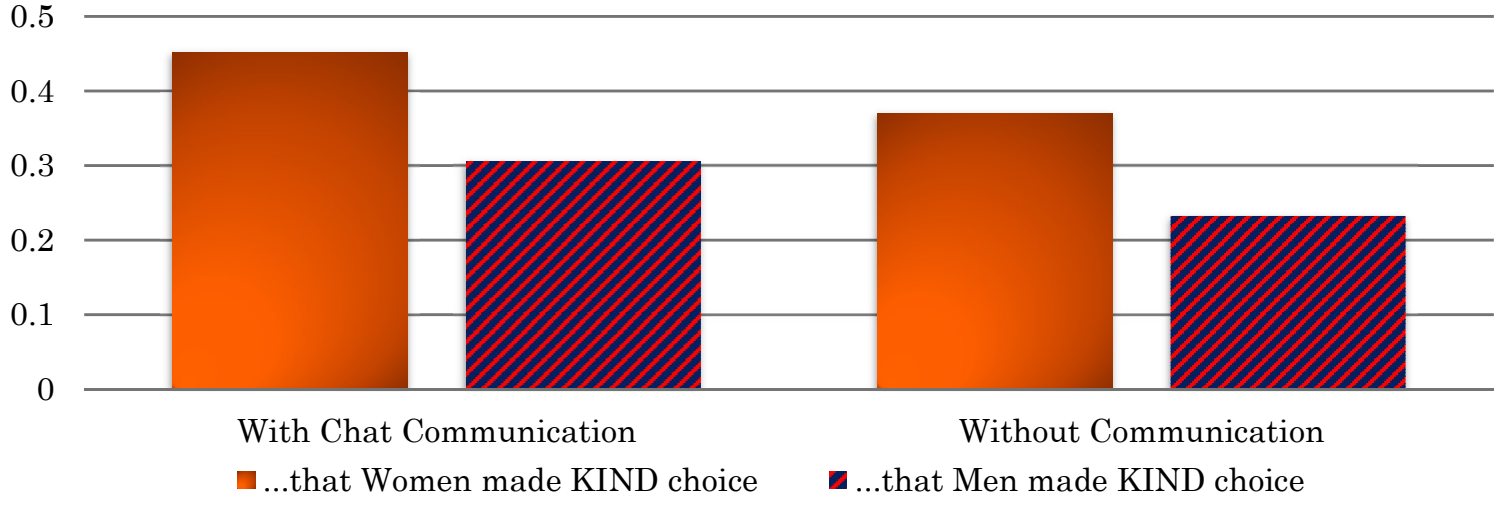
Results: Coordination Game



Women act in a manner consistent with female stereotypes when gender is observable to others:
Social environment matters?

Beliefs about KIND Choices

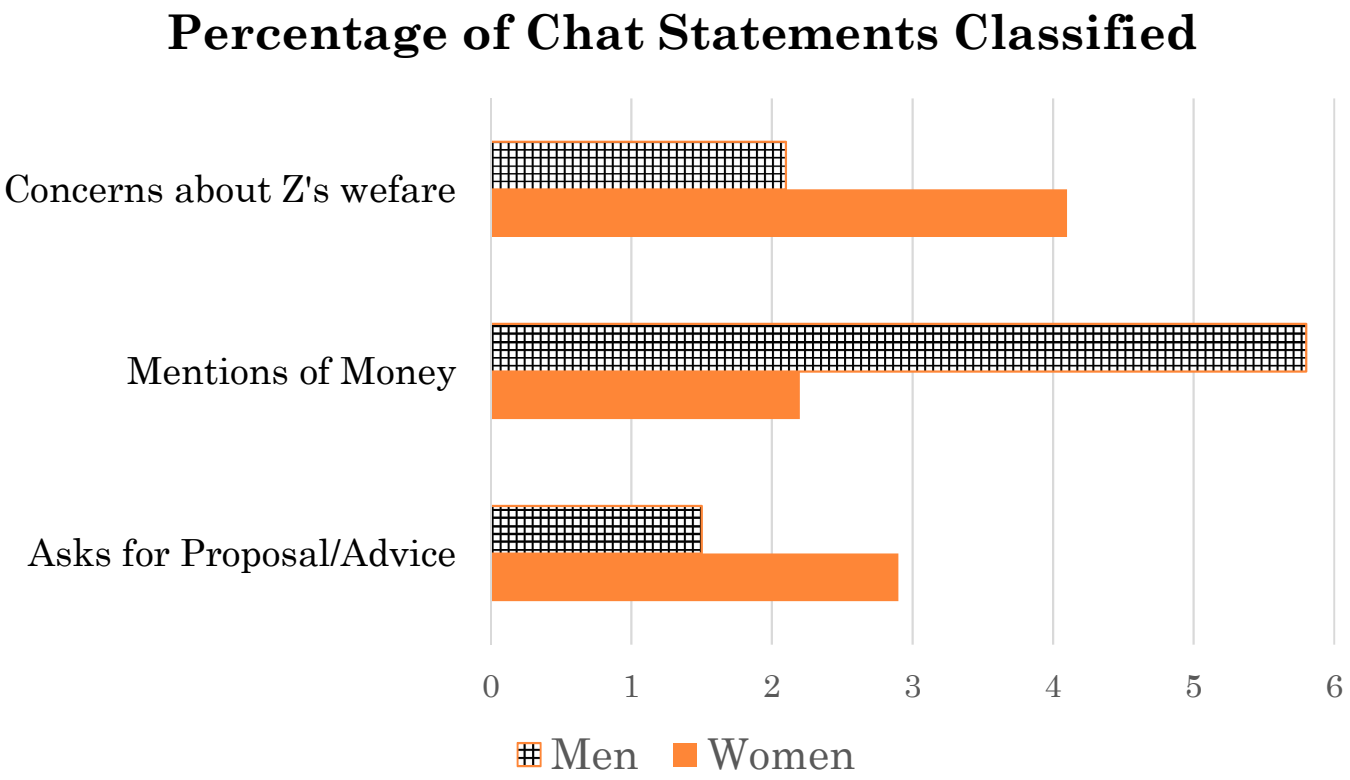
Gender difference in beliefs highly significant (p- value<0.01)
Both men and women have similar beliefs about gender difference



Beliefs: Women are expected to act prosocially: 14-15% points more often than men.

In contrast: Evidence shows women select prosocial choice 4-10% points more often.

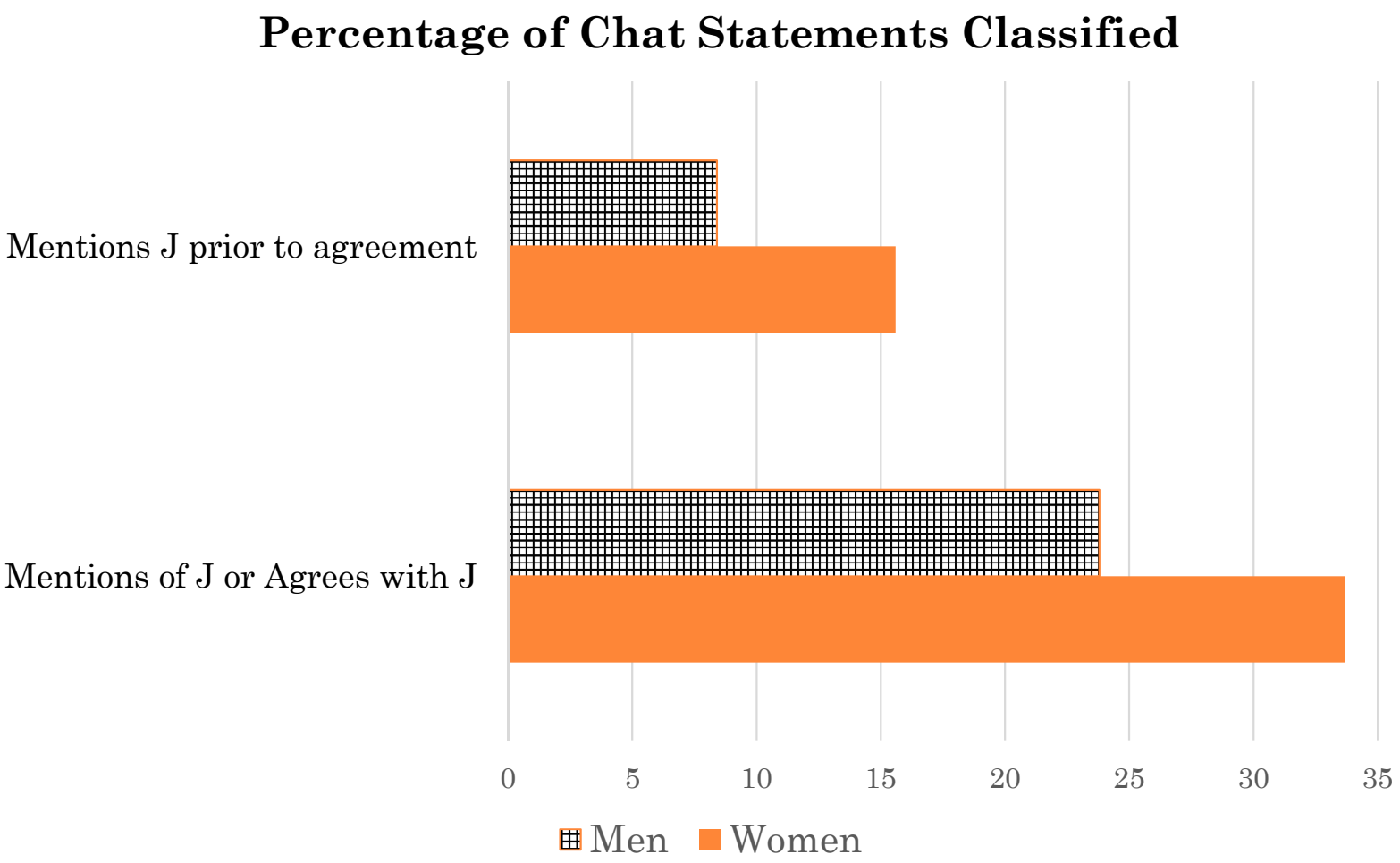
Significant Gender Differences



2,578 lines of chat independently coded by 3 coders.

Coding reliability assessed using Cohen's Kappa

REFERENCES TO THE KIND CHOICE (J)



Summary of Findings

- Groups with more women tend to make prosocial choices more frequently, particularly for uniform gender groups
- Men and women both believe strongly and significantly that women are more kind
- Communication increases prosocial choices made by groups
- In their chat communication
  - women express more concerns about the external party and discuss the KIND choice more often.
  - men refer to money more often

Next Steps?

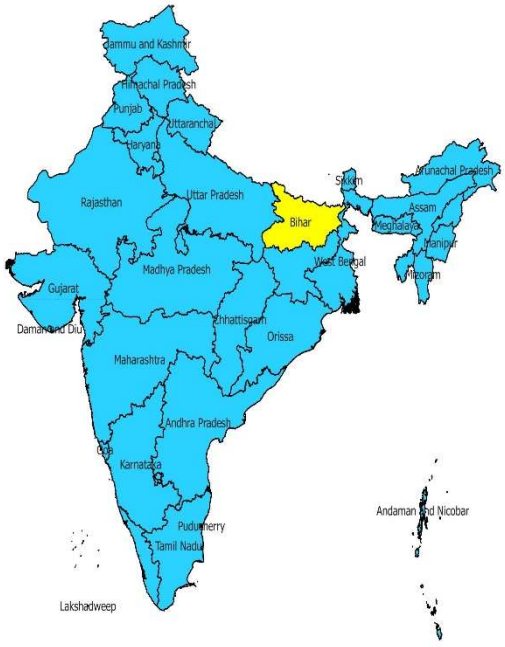
- If Gender Diversity improves social outcomes, what can one do to achieve diversity?

- Affirmative Action
  - Social Identity and Governance: The Behavioral Response to Female Leaders, *European Economic Review,* 2016.
  - Women Leaders and their Response to the Social Environment, *Journal of Economic Behavior and Organization,* 2019.

- Changing the Default
  - Leadership Selection: Can Changing the Default break the Glass Ceiling? Working Paper, SSRN

From the Lab to the Field

Affirmative Action Policy in Place:
for head of the village council



Female Leaders

- Social Identity and Governance: The Behavioral Response to Female Leaders
  - Lata Gangadharan, Tarun Jain, Pushkar Maitra and Joe Vecci. *European Economic Review,* 2016, 90, 302-325.

- Women Leaders and their Response to the Social Environment
  - Lata Gangadharan, Tarun Jain, Pushkar Maitra and Joe Vecci. *Journal of Economic Behavior and Organization, 2019.*

Main Research Questions

- We examine the behavioral response to women as leaders
  - Do men and women respond differently to women as leaders?
  - Is behaviour towards leaders influenced by experience with female leaders?

- What about leaders themselves?
  - Do women and men behave differently as leaders?
  - Does the social environment affect their decisions?

EXPERIMENTS

- The field setting has a distinct advantage
  - Allows us to examine this issue in a context where affirmative action policies are in place: natural policy experiment

- Against the backdrop of this natural policy experiment, we conduct two sets of Lab in the field experiments:
  - Leadership experiment (contributions towards a public good).
  - Social Norms experiment (incentivized, elicits social norms).

Leadership Experiment

- A modified one-shot public goods game (Linear VCM)
  - Group composition (2 women and 2 men per group, public information)
  - Group leader chosen randomly and anonymously. Non-leaders can be thought of as citizens
  - Half of the groups have female leaders.

- Stage 1
  - Leader proposes non-binding contribution towards group account (Cheap talk)
  - Leader's proposal communicated privately to group members

- Stage 2
  - All group members, including leader, decide on contributions towards group account
  - Payoffs are calculated and each member receives their earnings

Treatments

- Gender revealed
  - Leader's proposed amount and gender communicated privately to group members

- Gender not revealed
  - Only leader's proposed amount communicated privately to group members

Social Norms Experiment

- Differences in outcomes in the leadership experiment could be due to social norms
- Incentivized method to identify social norms separately from realized behavior (Krupka and Weber 2013)
- Collected data from similar subject pool
  - Those who participated in the social norm experiment were separate from those who made decisions in the Leadership experiment

Socially Appropriate

- Three key tasks: described possible decisions made by subjects in the original leadership experiment and also described a number of vignettes.

- Then participants in social norms experiment rated each decision
  - Very socially inappropriate
  - Somewhat socially inappropriate
  - Somewhat socially appropriate
  - Very socially appropriate

- Incentivized mechanism
  - Designed to ensure that participants reveal their beliefs about actions of others rather than reveal their own preferences
  - Aim to match the response of others ~ coordination game
  - Paid if response similar to modal response by others in a baseline session

Affirmative Action Policy in India

- From 1992: (33%) of all village council head positions reserved for women:
  - Reservation: randomly determined each election cycle (every five years)

- All villages governed by democratically elected village councils
  - Councils are responsible for administration of local services, dispute resolution.
  - Head of the council (Mukhiya/Sarpanch/Pradhan).

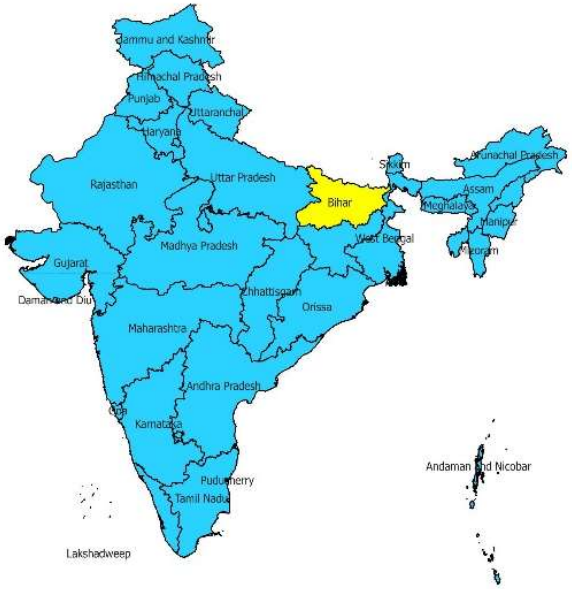
- Evidence (empirical) on Impact of Quotas: Mixed results so far
  - Positive:
    - Chattopadhyay and Duflo 2004; Clots-Figueras 2012; Beaman et al 2012; Iyer et al 2012; Beaman et al 2009; Bhalotra et al 2013.
  - Negative:
    - Ban and Rao 2008; Bardhan et al 2010; Bardhan and Mookherjee 2012; Afridi et al 2013.

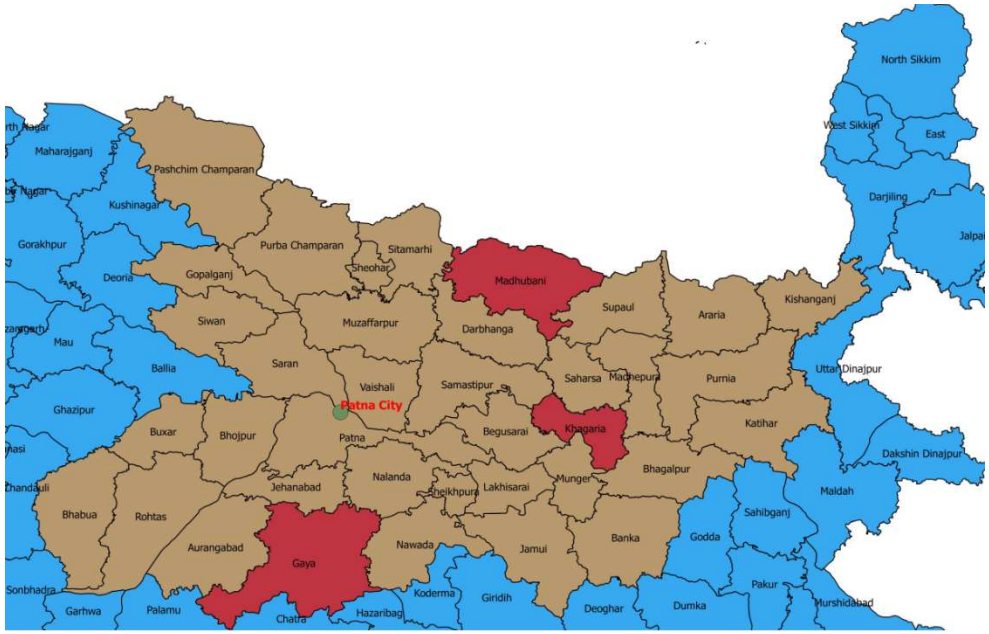
Our Approach

- In contrast to most of the literature.
- Lab in the Field experiments (Leadership experiment and Social norms experiment)
- Randomized assignment of Leadership status
  - Helps interpret the response to gender as causal
    - Critical challenge: female leaders are rarely observed.
  - Helps isolate actions of leaders without the confounding problem of experience of leaders.

Setting of the Experiment

State of Bihar contains 10% of India's population: 40 villages in Districts of Gaya, Madhubani and Khagaria





Elections held in 2001, 2006, 2011

In 2005, Bihar increased quotas for women from 33% to 50%

Female/Male Headed Village

- Village Heads
  - Female headed village had at least one female head following last three elections (57.5%)
  - Male headed village never experienced a female head (42.5%)

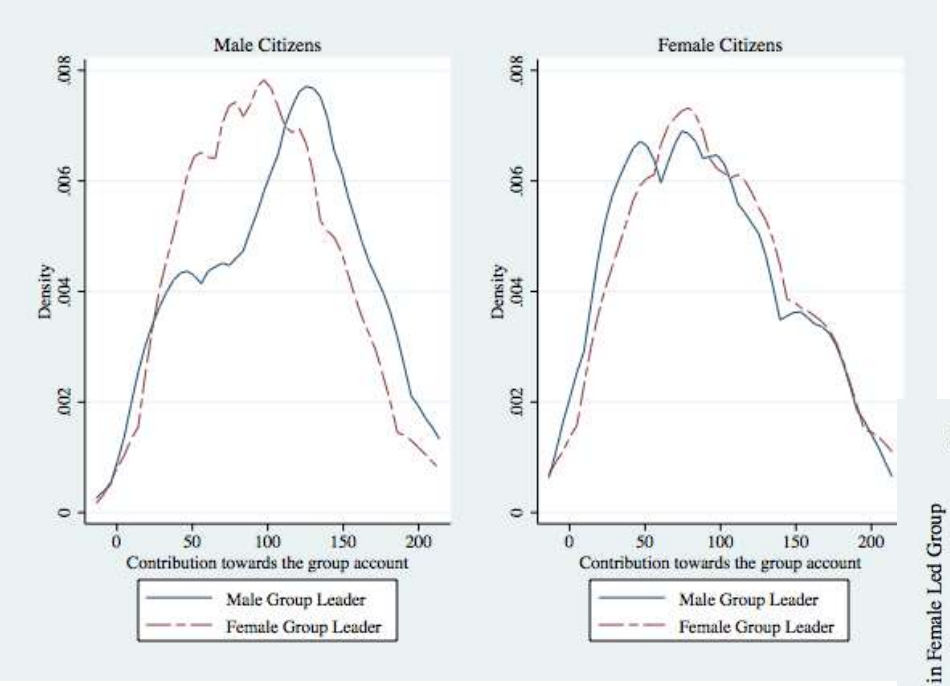
- Villages in Bihar unlikely to experience a female head in the absence of quotas
  - implies that head's gender is exogenously determined

- Two sources of random variation
  - Gender of group leader (experimental design)
  - Gender of village head: exposure to female heads of village councils (affirmative action policy)

Data Sources

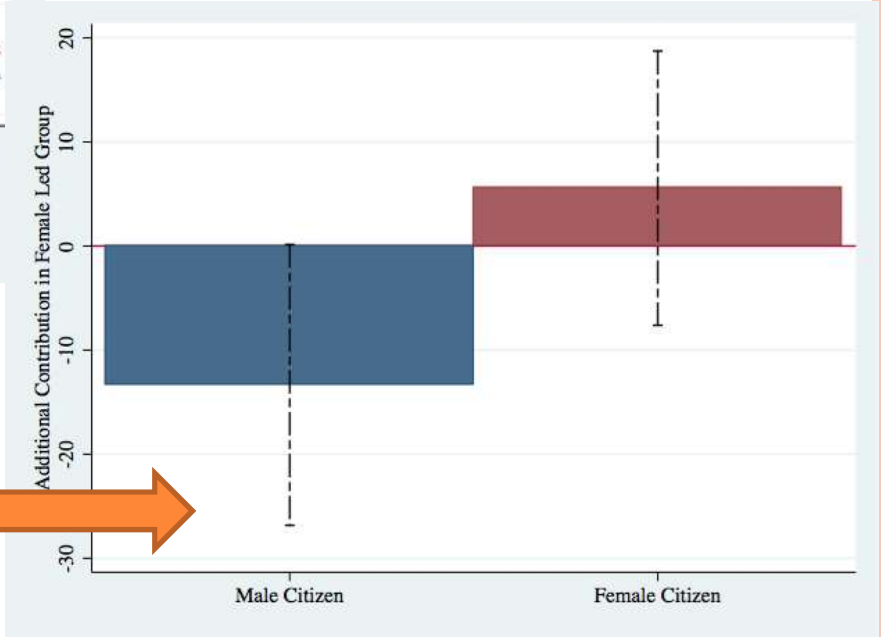
- Data: two Experiments (n =1223)
- Surveys
  - Post-experiment participant survey
    - Demographic and individual characteristics
  - Survey of Village council head or ward member
    - Current and previous council composition, population, council schemes, village income and other important village characteristics
  - Village infrastructure survey
    - Observational data including coordinates of key village landmarks
  - 2011 Indian Census data
    - Demographic characteristics used to balance treatments across villages

- **Result 1:** Male citizens contribute significantly less to female led groups (Kolmogorov-Smirnov test, p-value = 0.045; and Regression results).



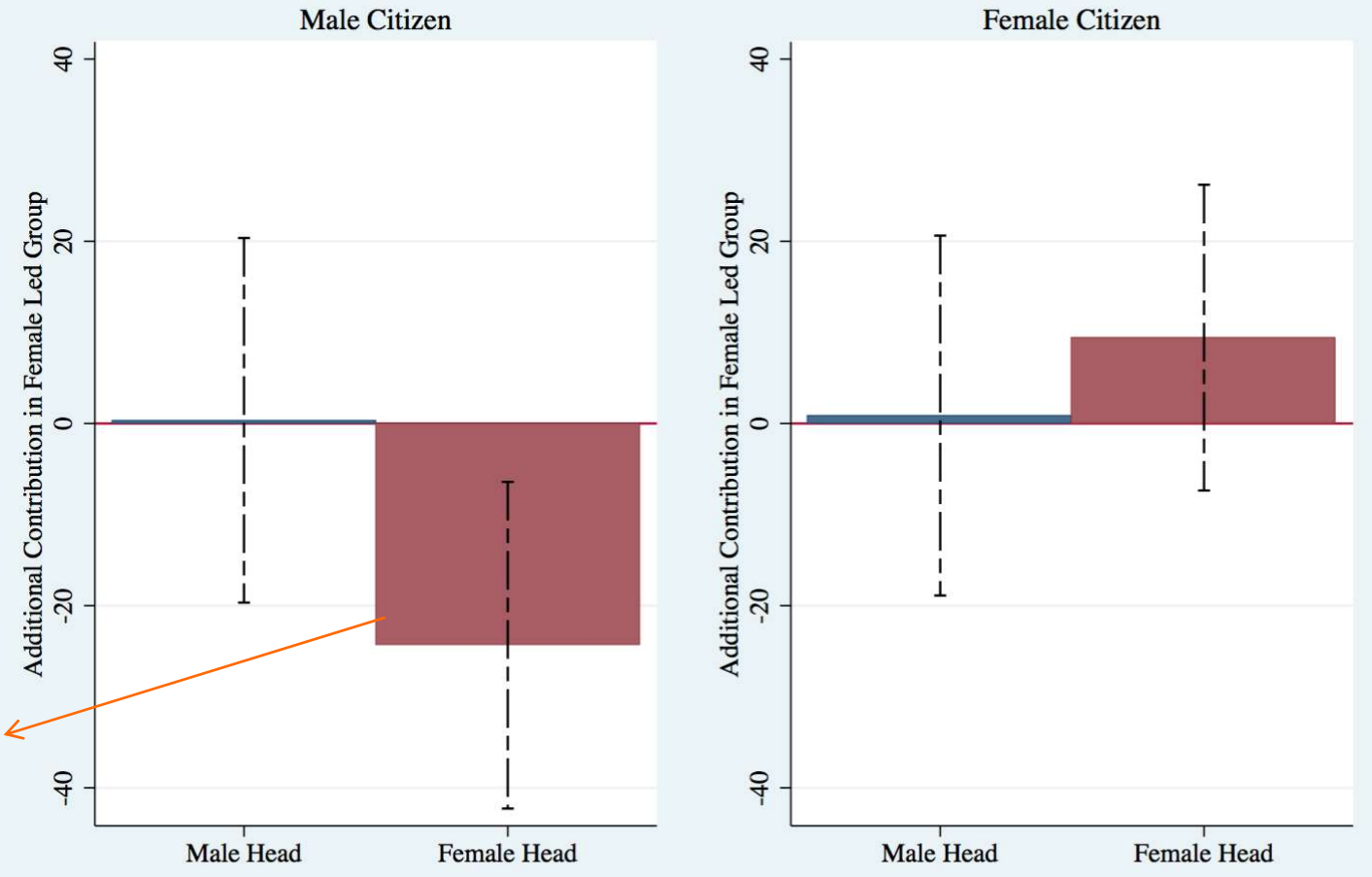
Backlash?

Men contribute Rs 13 less: about 7% of their endowment



- **Result 2**: Men contribute significantly less to female led groups in female headed villages (regression results)

Backlash driven by men in female headed villages



Bars denote difference in Contribution between female and male led groups
Dashed Lines indicate the 90% Confidence Interval

Rs 24 less: about 12% of endowment

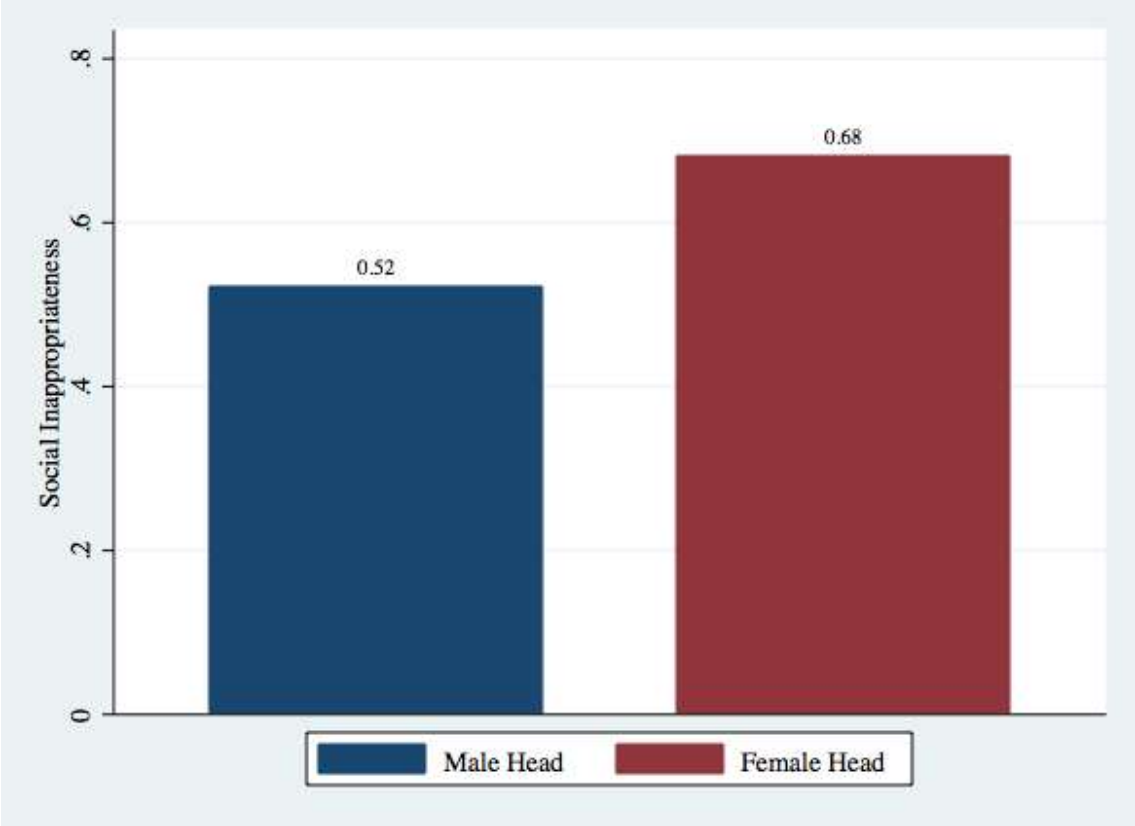
Understanding Backlash

- Leadership, power and influence considered the domain of males. Women encroaching upon this domain generates an identity crisis?

- Gender is a particularly strong identity
  - Violation of social norms that govern male identity?
  - People who believe their identity is being violated may act out to bolster a sense of self or to salve a diminished self image

Identity: Task 3, Social norms Experiment

- Do you think other people believe it is socially inappropriate for men to work as a home maker?



Difference
p-value = 0.02

Male identity is more pronounced in female headed villages (this is where it is being challenged)

IDENTITY

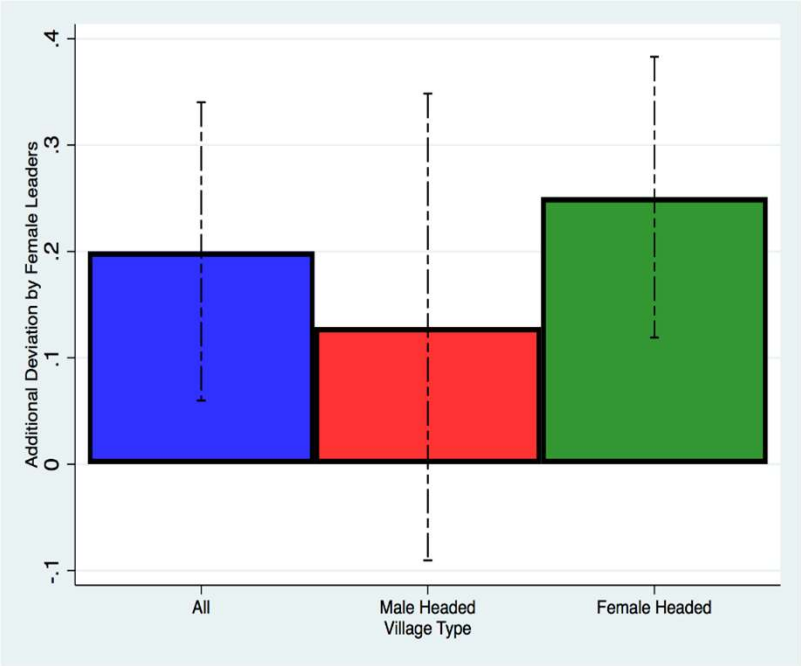
- To further examine the strength of the identity based explanation
  - We explore if women's new roles of village head contravenes accepted social mores?

- Participants asked:
  - *In this village, do women have too much political influence*?

  - Men who say 'Yes' also contribute less (30% less of their endowment) towards female led groups in female headed villages

Leader Behaviour

Female leaders deviate negatively from their proposals more often than male leaders:
1) When gender of leader is revealed.
2) In female headed villages



- Suggests the social environment differentially impacts behaviour
- Elements of the social environment that explain deviation by women leaders?
  - Economic costs and Social costs faced by women are different from those faced by men
  - Reduces their effectiveness.

Deviation = 1, if Amount Contributed < Amount Proposed.

FINDINGS

- Evidence of male backlash against female leaders
  - In female headed villages, men contribute less towards public goods under female leaders

- This male backlash:
  - Not a result of women being ineffective leaders or tokens for other leaders (alternative channels such as these do not find explanatory power in our data)
  - Ingrained social norms regarding female leaders
    - Violation of social identity when a woman is a leader

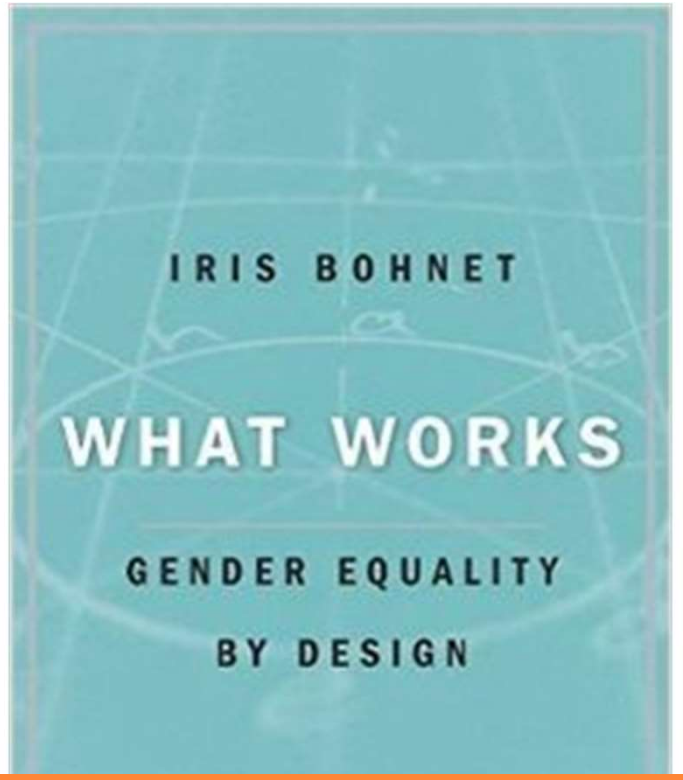
- Affirmative Action Quotas may have a role to play
  - UN: 29 countries have reached the 30% mark in women's representation in parliament: 24 of them have used quotas.
  - However need to be used with caution. Norway: compelling similarities.

- Alternative: Changing the Default?

Leadership Selection: Can Changing the Default Break the Glass Ceiling?

Nisvan Erkal (University of Melbourne)
Lata Gangadharan (Monash University)
Erte Xiao (Monash University)

MOTIVATION



…Diversity training programs have had limited success, and individual effort alone often invites backlash. Behavioral design offers a new solution. By de-biasing organizations instead of individuals, we can make smart changes that have big impacts…"

Motivation

- In essence, it remains a challenge to promote women to leadership positions.
- May not be enough to reduce performance gaps and institutional biases
- Even if these issues are alleviated, the gender gap in leadership positions will continue to exist unless more women show willingness to take on such roles.
- In this project, we investigate how women's participation in leadership selection can be increased.

This Paper

- We propose and test the effectiveness of a new way of breaking the glass ceiling:
  - By changing the default in the leadership selection process.
  - Default: the option one receives if he/she does not explicitly specify otherwise.

Opt-in Mechanisms

- Leadership selection process that is predominantly used in both the public and private sectors is an Opt-in mechanism.
  - Potential candidates have to put their hands up and actively choose to participate in this process.
  - In a survey we conducted with MBA students (with work experience), more than 70% of the participants indicated that the leadership selection process in their organization is similar to an Opt-in mechanism.

Opt-in Versus Opt-out Mechanisms

- For example, in many organisations, "call for nominations" notices/emails are sent out whenever there is a need to select a leader or form a committee.
  - Anyone who wants to be considered needs to contact the authority to express his/her interest.
  - The leader is then selected among those who express an interest.
- Consider an alternative where all qualified staff (e.g., all senior staff who have a certain number of years of experience at the institution) are automatically considered for available leadership positions.
  - Anyone who is not interested in participating can indicate that they want to opt out.

Opt-in Versus Opt-out Mechanisms

- In an Opt-in mechanism, by default, you are not in the leadership selection process.

- In an Opt-out mechanism, the default is that all qualified individuals are in the candidate pool.

Research Questions and Approach

- Does the Opt In mechanism contribute to the glass ceiling?
- Can an Opt Out mechanism lead more women to participate in the leadership selection process?
- Use Laboratory experiments to address these questions.
  - Three studies (n=909):
    - Study 1 demonstrates the effectiveness of Opt-out
    - Study 2 shows gender differences in competition contribute to the gender gap in Opt-in
    - Study 3 examines perceptions about Opt-out

Design Overview (Study 1)

- Part I: Individual real effort tasks, piece rate. 10 minutes. Provides a performance measure

- Part II:
  - Stage 1: Random assignment to groups of four. A leader is selected for each group based on performance in Part I. (Opt-in versus Opt-out)
  - Stage 2: The leader can send suggestions to the group (non-binding).

Part II: Stage 1 – Leader Selection

Two identical selection mechanisms differ only in the default:

- Opt-out:
  - **Default:** The computer will select the highest performer among the four group members.
  - However, you can indicate your desire NOT to be considered.
  - The computer selects among those who have expressed an interest to be considered.
  - If everyone opts out, the computer randomly selects one.
- Opt-in:
  - **Default:** The computer randomly selects one.
  - However, you can indicate your desire to be considered.
  - The computer selects the highest performer among the ones who want to be considered.

Part II: Stage 2 – Team Work

- Each participant earns $20 after finishing the first 20 counting tasks. Each then decides whether to work on additional tasks. Each additional task completed generates a payoff of $0.25.

- Leader's role: Each participant writes a message, which is sent to the group if they are selected the Leader:
  - *"Please complete at least ___ more tables after you finish your own 20 tables."*

Leadership Structures

- Leaders are motivated by different considerations: monetary (income), non-monetary: personal satisfaction and altruism (Madsen, 2008; Bartling et al, 2014).
  - No monetary Incentives structure (N): The team work benefits third parties (charities).
  - Shared Monetary Incentives structure (S): Leaders and the team share the profit of the team work (equally split amongst the four in the group).
  - Monetary Incentives structure (L): Profits from the additional tasks completed by the team went to Leader only.

Decision to Participate

- Previous research suggests that when monetary incentives are sufficiently strong, women are as likely to participate in competition as men (Goldin and Rouse, 2000; Mulligan and Rubinstein, 2008; Flory et al., 2015; Petrie and Segal, 2015).

- **Hypothesis 1:** under the Opt-in mechanism, we are less likely to see a gender gap under the Leader scenario than under the other two leadership scenarios.

- Focus on Structure N: the case where there is no monetary advantage to being the leader.

Why Should Changing the Default Work?

- Changing the default option has been used as a powerful policy instrument.
  - significant impact on important individual decisions, such as organ donation, savings, and insurance (Madrian and Shea, 2001; Johnson and Goldstein, 2003; Benartzi and Thaler, 2004).

- Explanations (Smith et al., 2013)
  1. Taking the default option can help save on the cognitive effort of making decisions (Gigerenzer, 2008).
  2. Defaults may affect the meaning attached to the choice (Davidai et al, 2012).
  3. The default may be viewed as the norm or the recommendation from the policy makers (McKenzie et al., 2006).

- We expect more participants (both men and women) to choose to participate in the leadership selection process under the Opt-out than under the Opt-in mechanism

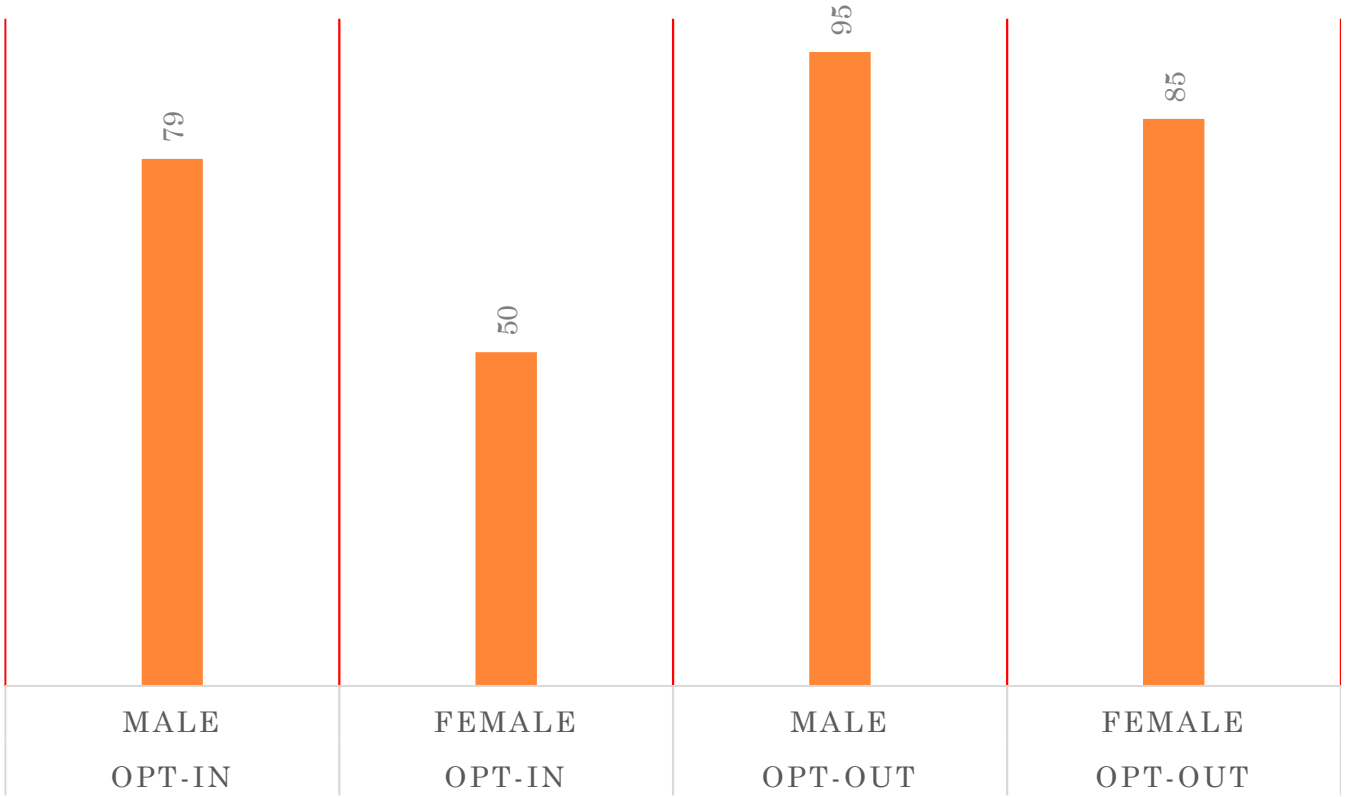
Opt-out and the Gender Gap

- Importantly how can opt-out mitigate the gender gap in leadership competition? Some reasons:
  1. The default of participating in leadership selection can break the existing norm or stereotypes of male leadership (Koenig et al., 2011): this would impact the gender difference in Personal Satisfaction: P_i
  2. Choosing to participate under the Opt-out mechanism does not necessarily convey the same image of competitiveness/ aggressiveness since one does not need to actively choose to participate: would impact the gender difference in utility derived from competition: C_i
- **Hypothesis 2:** Opt-out mechanism can mitigate any gender gap observed in the participation decisions for leadership under the conventional Opt-in mechanism.

Results: Gender and Default

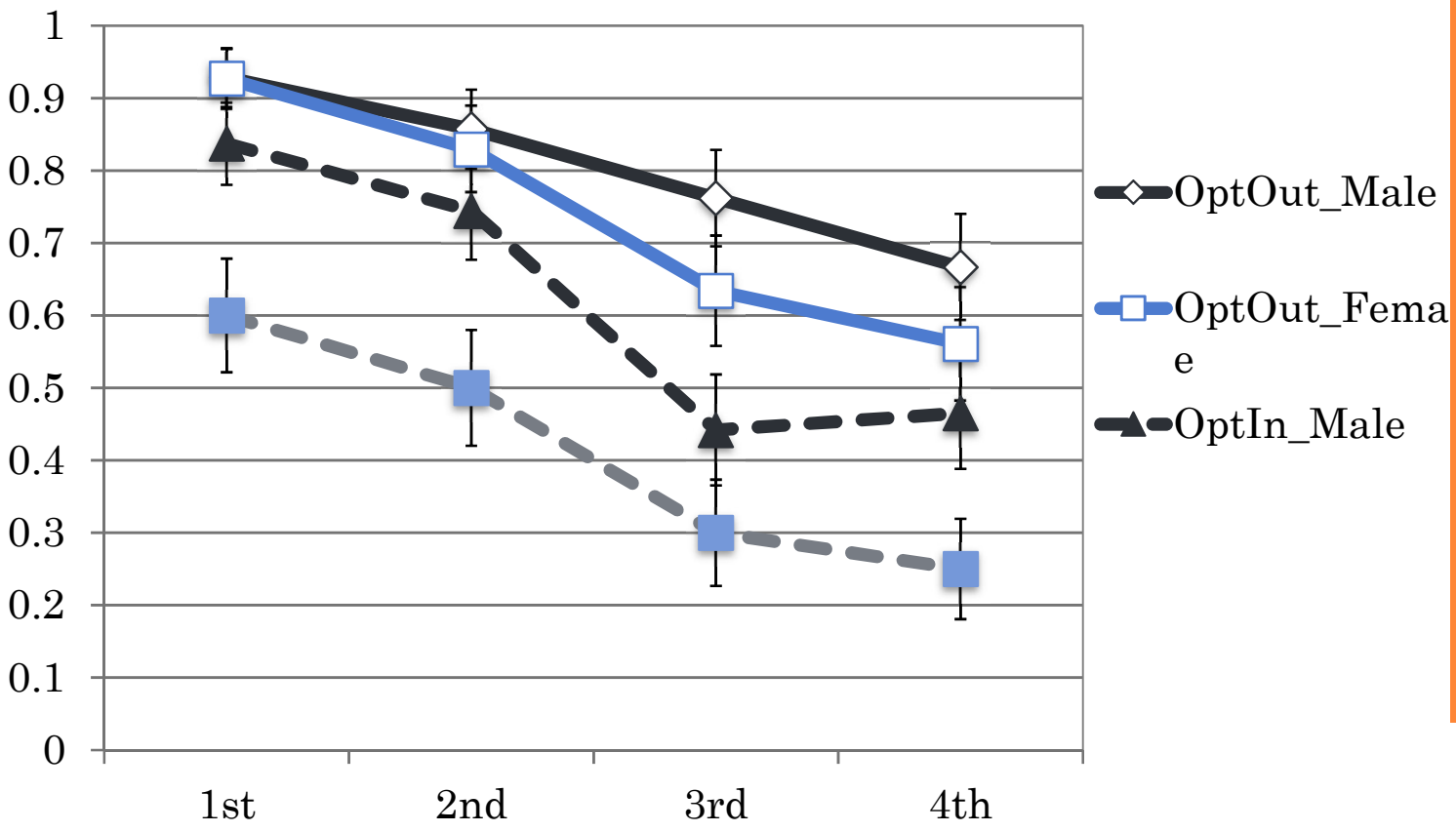
Under Opt-in: significant gender gap in Structure N (79% for men versus 50% for women: $p<0.01$).

However, the gender gap is no longer significant under the Opt-out mechanism (95% for men versus 85% for women).



Proportion who consider leadership conditional on rank (Structure N)

Both males and females with higher performance ranks are more likely to participate.



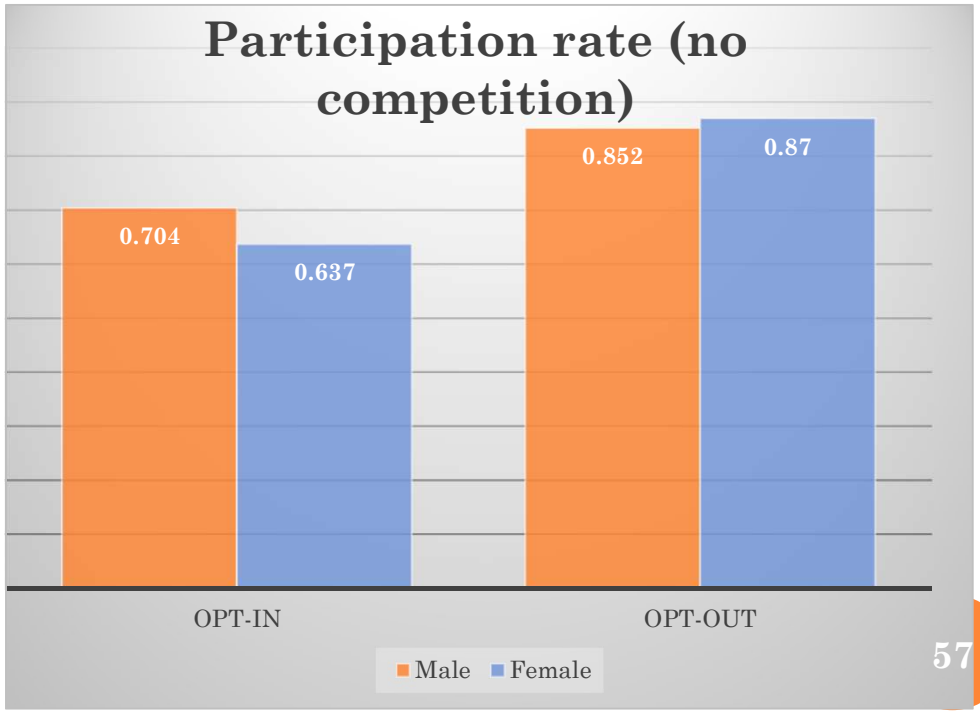
Striking! Under the Opt-in, women are less likely to participate than men even when they are the top performers.

No difference under Opt-out.

Study 2: Leadership Selection, No Competition

- Does Opt-in still result in gender gap in participation if leaders are not selected via competition?
  - New treatments: no competition for leadership: $\cancel{C_t}$, P_i
  - Leaders: randomly selected from those that have expressed interest.
  - Findings:
    - No gender difference.
    - Suggests that observed gender gaps in Study 1 driven by differences in willingness to compete and not by differences in willingness to lead.

- Opt-out helps with/without competition.



FINDINGS

- A precondition for gender equality in leadership positions is to encourage equal participation in the leadership selection process.

- The Opt-out mechanism can be an effective way to encourage women to consider leadership positions and reduce gender gaps.
  - Useful complement to the diversity policies and training programs.

- Moreover, when given a choice, individuals do not have a bias against using an Opt-out mechanism (Study 3).

CONCLUSION

- Women are underrepresented in leadership positions.

- Today we considered some evidence on:
  - What may not work in making female leaders more effective: Affirmative Action; and

  - What can potentially work and reduce gender gaps: Changing the Default.
    - Universities Australia: Best Practice Gender Equality Recruitment Guidelines to Fast Forward the Advancement of Women in Australian University Executive Appointments

Open Questions and Future Research

- Weight of Expectations
  - more often imposed on women (leaders): punished if those expectations are not (perceived to be) met?
  - Are failures/successes of female leaders evaluated differently from those of male leaders?
    - Attribution biases: luck or choices? (with Nisvan Erkal and Boon Han Koh)

- Transgressions from established norms? Who punishes?
  - Experiments in Matrilineal and Patriarchal societies to examine behaviour of third parties and how they respond to actions of male and female decision makers. (with Tarun Jain and Pushkar Maitra)

Thank You!

Previous Evidence on Gender & Group Decision-making

- Norway experiment mentioned earlier, requiring publicly traded firms to have at least 40% women directors (Ahern & Dittmar, 2012; Matsa & Miller, 2013), found mixed results

- Non-coordination games: Business games (Apesteguia et al., 2012; Hoogendoorn et al., 2013); Dictator games (Dufwenberg & Muren, 2006); Investment games with leadership (Grossman et al., 2015)
  - Find gender differences.

- Few previous coordination games: Minimum effort coordination games, mixed results. (Dufwenberg & Gneezy, 2005; Di Girolamo & Drouvelis, 2015; Holm, 2000). Volunteer's dilemma (Babcock et al., 2017) women volunteer more.

Experimental Design (11 sessions, 176 subjects)

- Sessions had 16 subjects, playing in 4-person groups re-matched across 12 rounds of the coordination game
- 12 of the 16 subjects (6 women, 6 men) assigned as Position C subjects; 4 assigned as (passive) Position Z subjects. Positions fixed
- A Prosocial choice by C's always lowers their own payoff from 7 to 5, but raises Z's payoff by 20
  - Three payoff cases: Three Z changes: **-16**→**4**, 4→24, -4→16
- Treatment: **Gender composition** varied across rounds

Screenshot: Info on Group Composition

- Varied within-session
- 12 rounds: Each of 3 payoff cases played 4 times; 3 times with (randomised) gender compositions revealed, and once with no gender info

Irrelevant (?) info to avoid gender being artificially salient.

Table 1: Timeline of Experiment

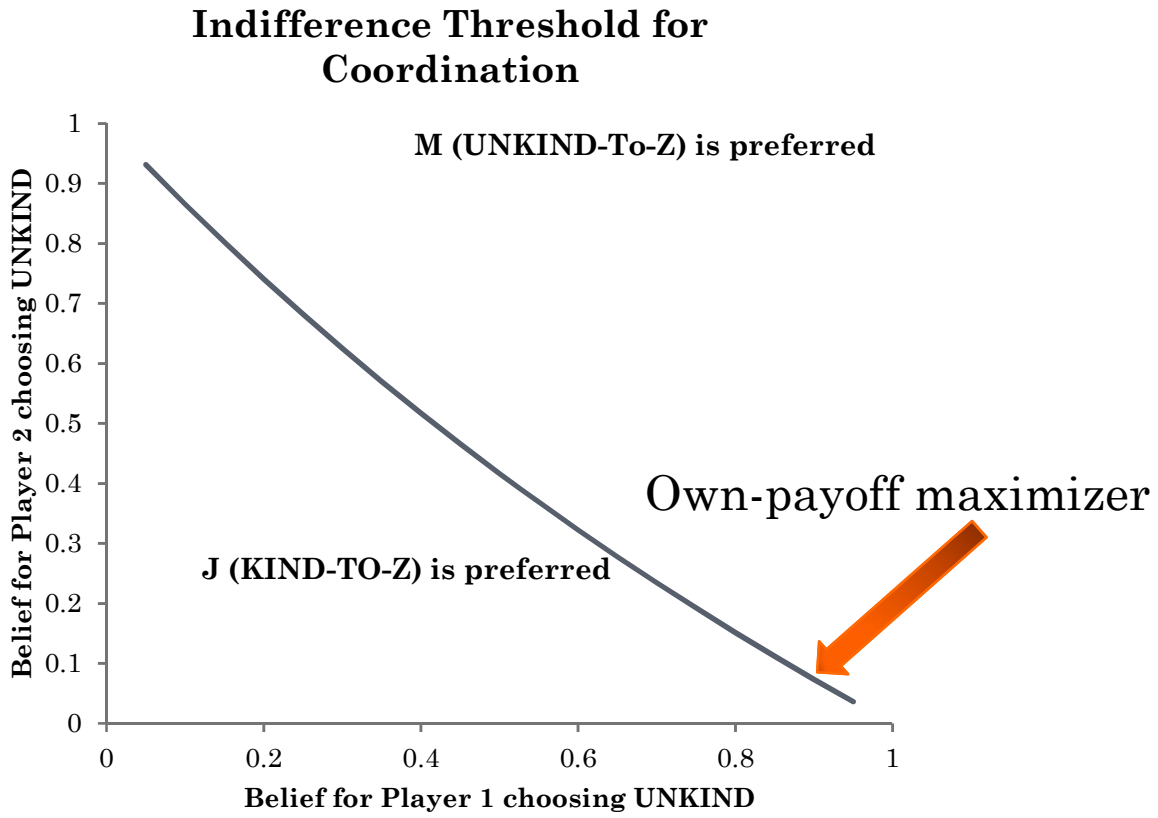
Note: 11 total sessions, 8 sessions with communication for 1 minute before each of the 12 coordination game rounds. 176 subjects in total.

Part 0:	**Initial questionnaire to collect gender and season of birth**
Part 1:	**12 rounds of the coordination game** • 4 rounds for each of the 3 payoff configurations • random rematching of groups • gender composition randomly varied across rounds • gender revealed for 9 of the 12 rounds • no feedback between rounds • all rounds paid
Part 2:	**3 individual allocation rounds** • based on payoffs used in the 3 coordination games • one round selected at random for payment • one randomly chosen group member's choice implemented for payment (no feedback)
Part 3:	**Risk preference elicitation** (no feedback)
Part 4:	Survey • (incentivized) belief elicitation concerning coordination game choices for each gender, for each of 3 payoff configurations • sociodemographic questions • payoffs for each stage revealed and paid

Timeline of Experiment

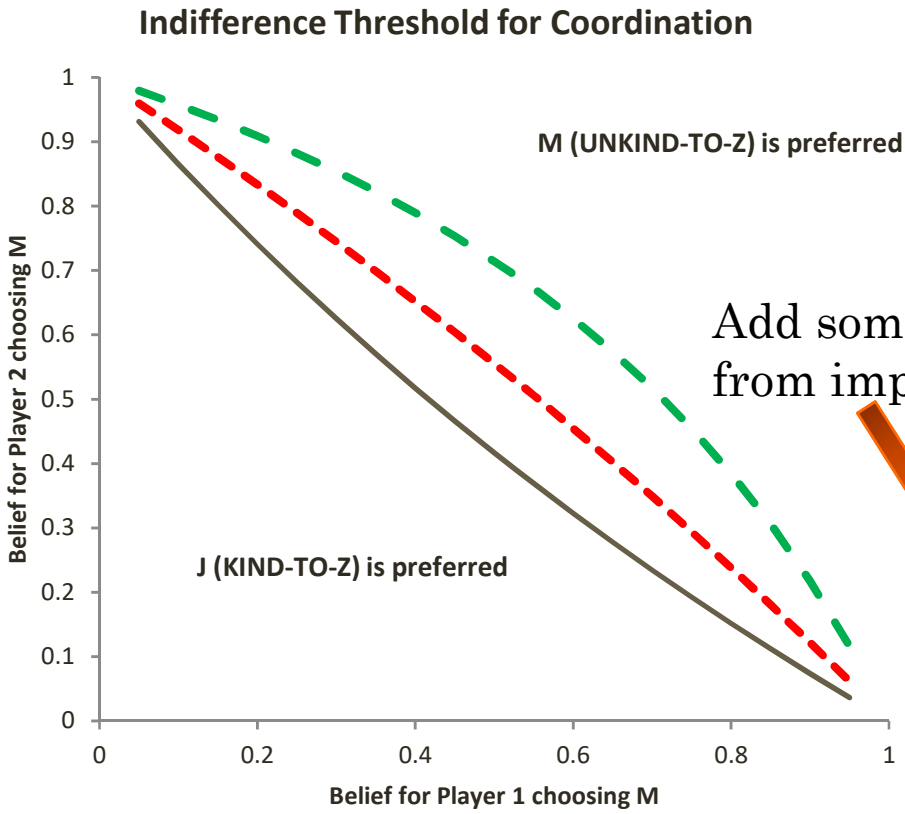
- Part 0: Initial questionnaire to collect gender and season of birth.
- Part 1: 12 coordination games (all paid); no feedback
- Part 2: Individual (dictator) allocations, same payoff outcomes (one choice in each group, for one game, was implemented)
- Part 3: Risk preference assessment (Eckel & Grossman, 2008)
- Part 4: Incentivized belief elicitation about what fraction of men & women chose KIND choice for all 3 coordination games
- Sessions lasted less than 1 hour, earnings averaged US$20.50

Gender Composition & Coordination



Even a selfish player will be kind if she believes that others in her group will be kind

Gender Composition & Coordination



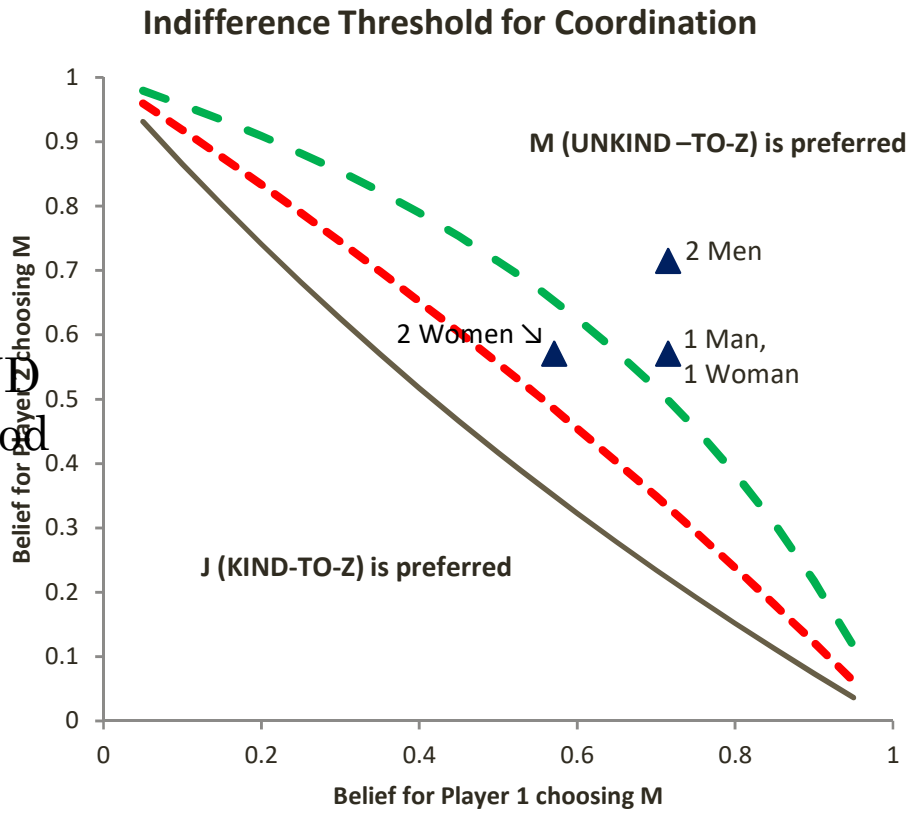
Add some disutility from imposing externality

Differs by individual, & possibly by gender

The region of beliefs for which the kind choice is preferred grows with this increasing disutility.

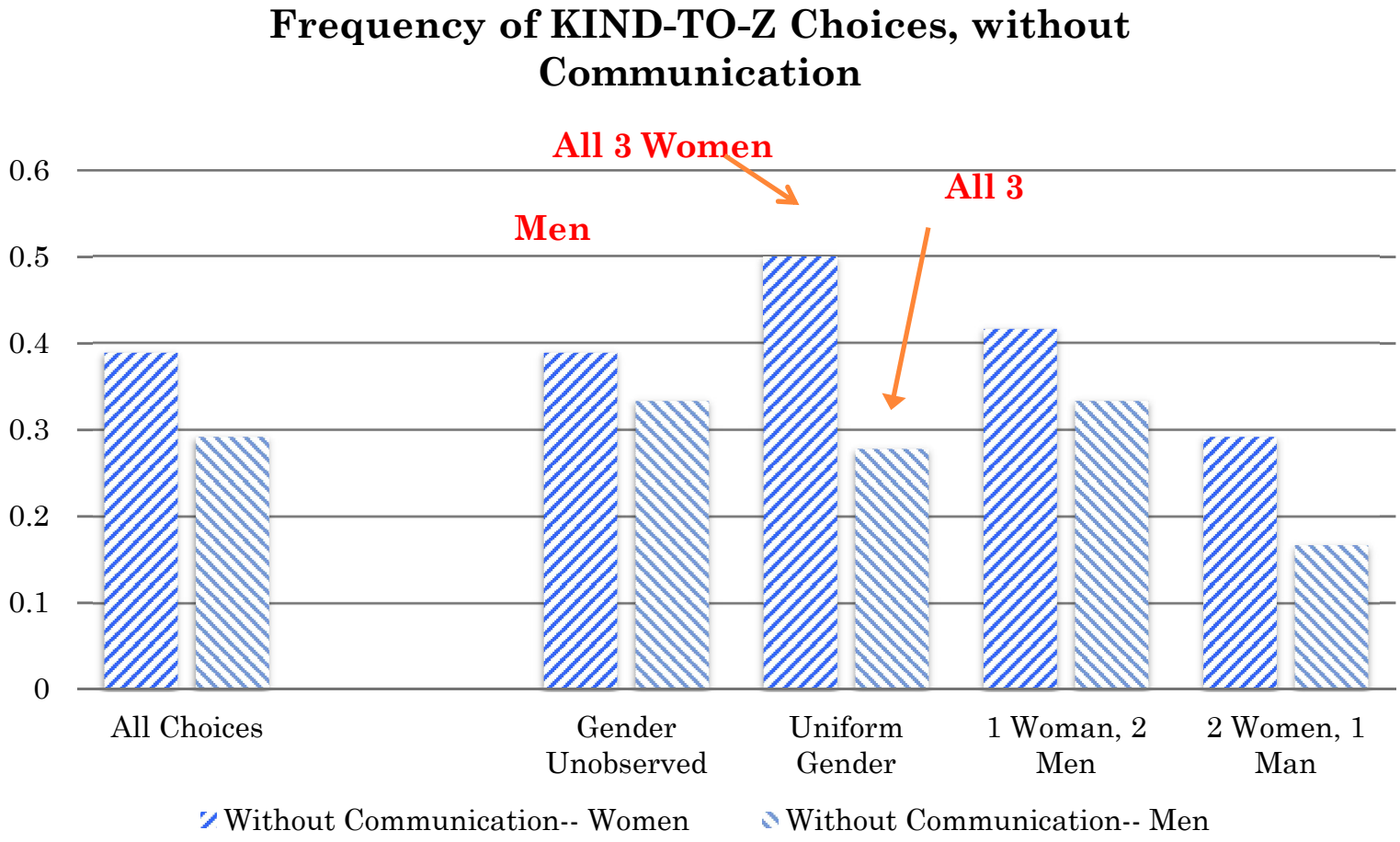
Gender Composition & Coordination

Men expected
To be UNKIND
(choose M) with
0.72 likelihood;
Women expected
To choose UNKIND
With 0.57 likelihood



***If* pro-social preferences are sufficiently strong, *and* subjects expect women to be kind more often than men, *then* a KIND coordination game choice is more often optimal in a group with more women.**

RESULTS: COORDINATION GAME



Fewer KIND choices without communication (p-value=0.058);

Gender and Information Differences (Linear Probability Models)

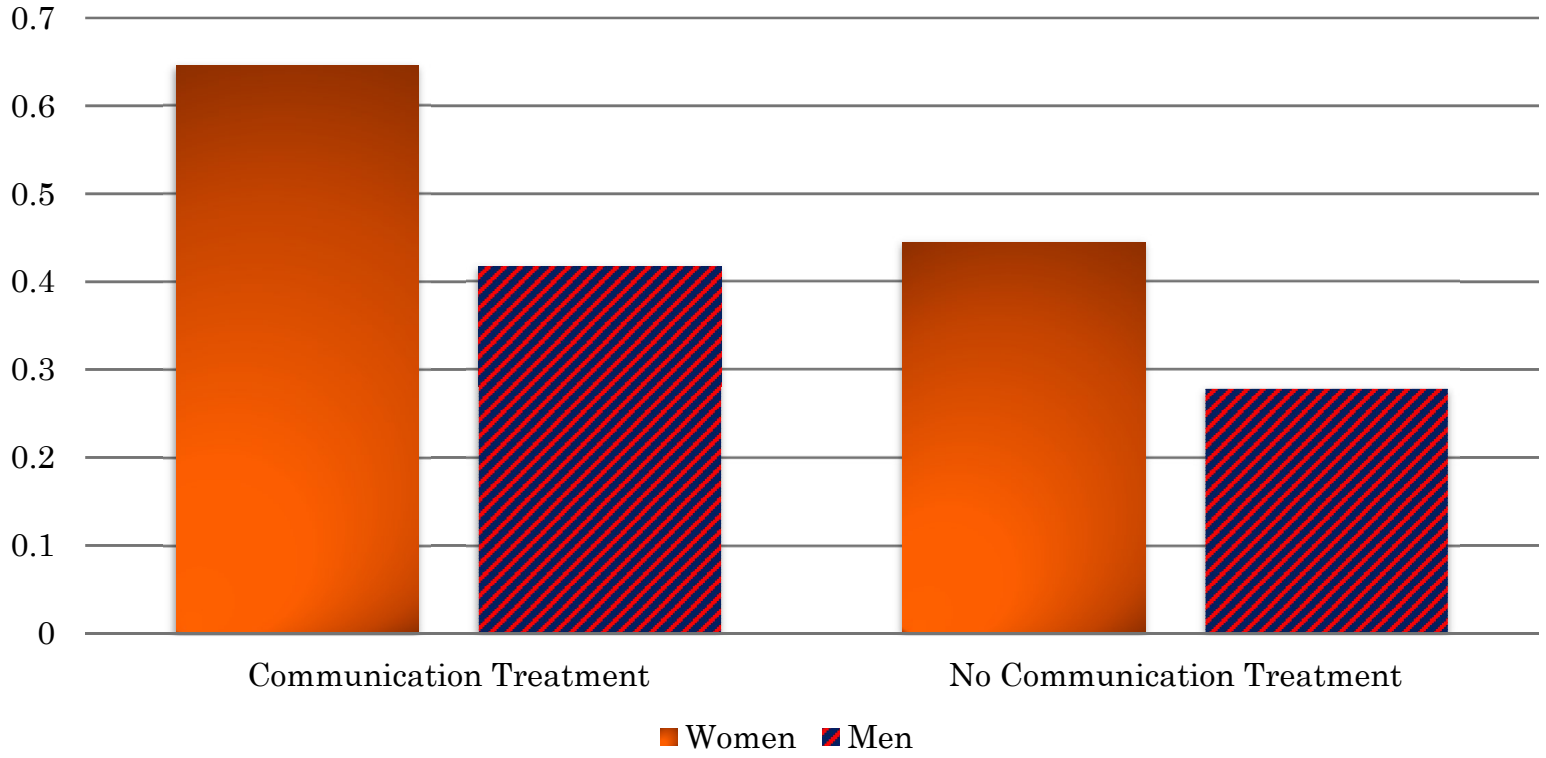
- Dependent Variable = 1 if KIND Choice J

	Choices with Uniform Gender		Choices Only by Women (with Comm)		All Choices with Info Revealed	
	(1)	(2)	(3)	(4)	(5)	(6)
Dummy = 1 if Woman	0.167* (0.081)	0.163† (0.094)			0.083 (0.075)	0.076 (0.085)
Number of Other Women in Group					0.036 (0.051)	0.035 (0.052)
Dummy = 1 if Communication	0.122 (0.155)	0.216* (0.108)			0.215† (0.113)	0.261* (0.118)
Dummy = 1 if Gender Info Provided			0.174* (0.075)	0.174* (0.077)		
Intercept	0.306* (0.138)	0.351* (0.178)	0.417** 0.063)	0.620** (0.168)	0.256* (0.126)	0.335† (0.196)
Demographic and Risk Preference Controls	No	Yes	No	Yes	No	Yes
Observations	132	132	192	192	396	396

- Significant differences for uniform gender groups
- Women act in a manner consistent with female stereotypes when gender is observable to others

Payoff Preferences without Coordination Incentives

Figure 3: Frequency of KIND Individual Allocations, by Gender



Gender difference is highly significant: 17%-23%; (p-value=0.018)

Communication difference is also significant (p-value=0.048)

(No significant interaction)

BELIEFS

- We ask the following belief questions:
  - For Position Z players: "What percentage of Men (Women) do you think chose M in the above case (0-100)?"
  - For Position C players: "Not including yourself, what percentage of Men (Women) do you think chose M in the above case (0-100)?"

- Subjects are paid 25 ECUs if their answer is within 10 percent of the true value; 10 ECU's if it is within 10.01 percent and 20 percent of this value and 0 ECUs otherwise.

Chat Communication

- In 8 or the 11 sessions Position C subjects could exchange written chat messages for 60 seconds before coordinating
- All 2,578 lines of chat in 384 chat rooms, were independently coded for content by 3 coders
- Coding reliability (assessed using Cohen's Kappa) was generally good, with most content categories in the "substantial" or "moderate" agreement ranges
- Men tended to communicate more than women (2.75 lines per chat room, compared to 2.12 lines; *p*-value=0.045)

Summary of Findings

- Many of the most important decisions made in organizations involve group decision-making, and communication
- Experiment provides evidence that women prefer not to impose negative externalities on others, more so than do men
- Strong difference in beliefs re: which gender will be more kind
- Gender differences in coordination game choices are statistically significant for all-female compared to all-male groups, and women more often express concerns for external party's welfare and agree to choose the KIND option

Communication Focus

- Subjects tend to focus chat on the choice between the **M** and **J** action, which is not surprising given their need to coordinate

- Explicit mentions of **gender** were very rare—only 10 of 2,578 chat lines (suggests that subjects were not primed). Examples:
  - I feel like all the females agree on making sure everyone gets money haha
  - Does gender really matter?
  - i think it has to do with decisionmaking and gender
  - You're nice, Female born in Spring.

Robustness (Majority rule voting)

- Counterfactual Scenario:
  - Decisions made through majority rule voting rather than consensus.
  - Consider if majority vote determined the group choice in Part 1 and assume that individuals voted the same as their individual allocation choices made in Part 2.
  - This would lead the fraction of KIND-TO-Z group choices to increase monotonically with the number of women in the group.
  - Our data is consistent with this expectation;
    - KIND-TO-Z choices increase with the number of women in the group (p-value<0.01 for linear probability model with random session effects).

Robustness (Placebo test)

- Birth timing provides a convenient placebo test to contrast with the significant gender difference.
  - We do not expect birth timing to be correlated with subjects' choices..

- Regressions analogous to Table 5, but with a dummy variable for birth (during the first two rather than last two seasons of the year) replacing gender
  - we find no birth timing impact (p-value=0.38 for all choices as in column (1), and p-value=0.76 for the communication condition as in column (3)).
  - Similarly, birth timing does not correlate with Part 1 coordination game choices (p-value=0.65 for specification analogous to column (1) of Table 3).

Chat Communication: Analysis

- All 2,578 lines of chat in 384 chat rooms, were independently coded for content by 3 coders

- Coding reliability (assessed using Cohen's Kappa) was generally good, with most content categories in the "substantial" or "moderate" agreement ranges

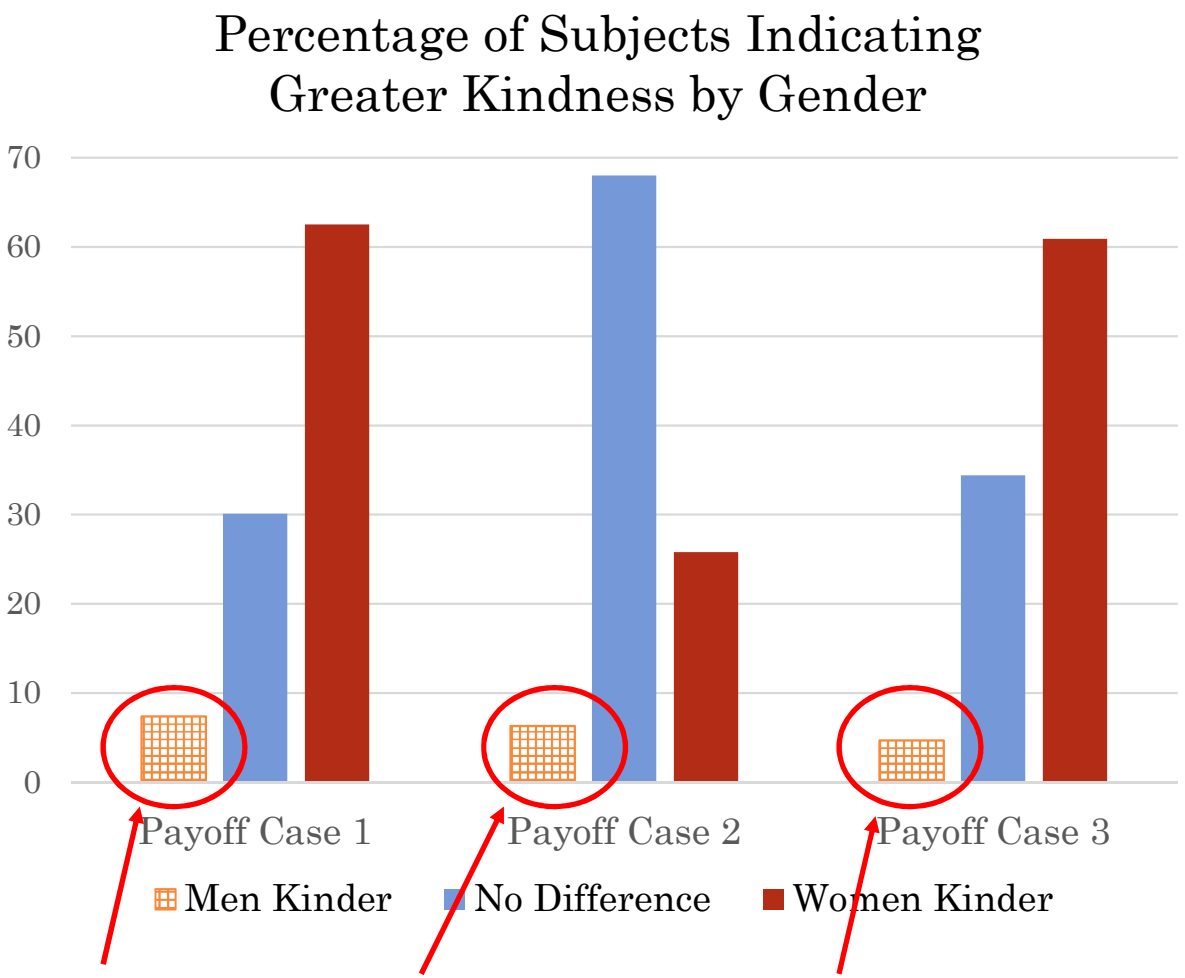
EXAMPLES

- Concerns expressed for player Z's earnings/welfare/well-being:
  - this is rough for the Z players
  - ehh im feeling sorry for type z
  - whoever was put in group Z is getting screwed
  - Im thinkin the 2 pts isnt that big of adeal. lets give Z something. J?

- Mentions of money:
  - Trying to get the most money for the group
  - we make the decisions so we should get the money
  - we are trying to make money. not give it to someone else. choose m

Large Majority of Subjects Believe Women Make More KIND Choices

- Note Payoff Case 2 increases Z's payoff from 4 to 24 for the KIND choice J, which is rarely chosen by either gender



Almost nobody expects men to be kinder than women

COMMUNICATION AFFECTS BEHAVIOR

- Part 1: Coordination game: communication raises kindness by **19pp on average**

- Part 2: Although not preceded by additional communication, if coordination game included communication the later revealed preference for kindness increases by **17pp on average**

- Part 4: Reported ***beliefs*** correctly anticipate communication's impact on kindness, believing an increase of **8pp on average**
  - This is even recognized by the Position Z subjects who have no interaction with any other subject; they believe that Part 1 communication will increase kindness by **16pp on average**

LITERATURE ON GENDER AND LEADERSHIP

- Leadership and Gender:
  - Grossman, Komai and Jensen, 2015; Arbak and Villeval, 2014
- Affirmative action and entry in tournaments:
  - Niederle, Segal and Vesterlund, 2012; Balafoutas and Sutter, 2012
- Leadership experiments:
  - Meidinger and Villeval 2002, Guth, Levati, Sutter and van der Heijden, 2007; Eckel, Fatas and Wilson 2010; Levy, Padgitt, Peart, Houser and Xiao. 2011; Jack and Recalde 2014; d'Adda, Darai and Weber 2014.

Evidence on Impact: Quotas for Women on Board Positions in Norway

- 40% of seats on corporate boards of publicly listed companies are reserved for women in 2006
- Firms affected by the female board quota undertook fewer workforce reductions, leading to lower short-term profits (Matsa and Miller, 2013).
- Exodus of firms listed on Norway's stock exchange, down from 563 firms in 2003 to 179 in 2008 (Economist, 2014).

Randomized Affirmative Action Policy

- Nationwide Policy: decentralised decision making which is community led

- Key Feature: Reserved Seats are randomly allocated:
  - only difference between reserved and unreserved villages is that some were picked to be reserved and some were not.
  - Therefore any difference in outcomes would reflect the impact of the policy.

Randomisation of the Policy

- Randomisation procedure (Chattopadhyay and Duflo, 2004):
- All village councils ranked in order of their serial administrative number
- 3 separate lists are drawn from this main list
  - List of councils reserved for Scheduled Caste, Scheduled Tribes, Unreserved
- Using these three lists: every third council starting from the first on the list is reserved for women
- In next election cycle: every third council starting with the second on the list is reserved.

Subject Recruiting

- Pre-visit (2 RA's: 1 male and 1 female)
  - Advertising flyers in prominent places in village (bus stop, tea shops, temples/mosques, community centres)
  - House-to-house: announcing experiment
- Eligibility
  - 18+ years, literate
- Balance in male and female participants

Field Experiment

- The Leadership experiment
  - Total of 956 subjects (= 239 groups)
  - One session per village, 40 villages.
  - 24 participants per session; Six groups per session
  - Anonymous matching with no communication
    - No identities revealed

- Average earnings = $US 7
  - approx. two days wages ~ Rs. 420

RECRUITMENT FLYERS

रिसर्च में भाग ले और

पैसे कमाएँ!

आपको निश्चित रूप से 100 रुपेये मिलेंगे इसके अलावा आपके निर्णयों के आधार पर आप और भी पैसे (100-600) रुपेये के बीच) कमा सकते हैं| रिसर्च प्रॉजेक्ट में 180 मिनिट लगेंगे| एक्सपेरिमेंटल सेशन इस समय के भीतर होंगे :

तिथि:

स्थान:

समय:

इस प्रॉजेक्ट में भाग लेने के लिए आपको हिन्दी लिखनी व पढ़नी आनी ज़रूरी हैं| अगर आप समय पर नही हैं तो आप भाग नही ले सकते|

अगर आपको कोई भी सवाल हैं तो संपर्क करें : ड्र. तरुण जैन - 91.40.2318.7267

EARN CASH

AS A RESEARCH PARTICIPANT

We invite you to participate in a research project conducted at

_____ _____

You will definitely earn **Rs 100** and you can earn more money according to your decisions (between Rs 100- 600). The research project will take 180 minutes. The experimental sessions will be conducted during the period:

Date:

Location:

Time:

To participate in the project, you must be able to read and write in Hindi.

If you have any questions, please contact:

Dr Tarun Jain (Indian School of Business) on +91.40.2318.7267

Randomization and Balance Achieved

- Individual Level
  - Gender revealed vs. Gender not revealed villages
  - Male vs. Female group leader
  - Role of Leader vs. Citizen

- Village Level
  - Gender Revealed vs. Gender not revealed villages
  - Male vs. female headed villages.
  - Intensity of exposure to female head (0, 1 and 2 or more female heads in last three elections)

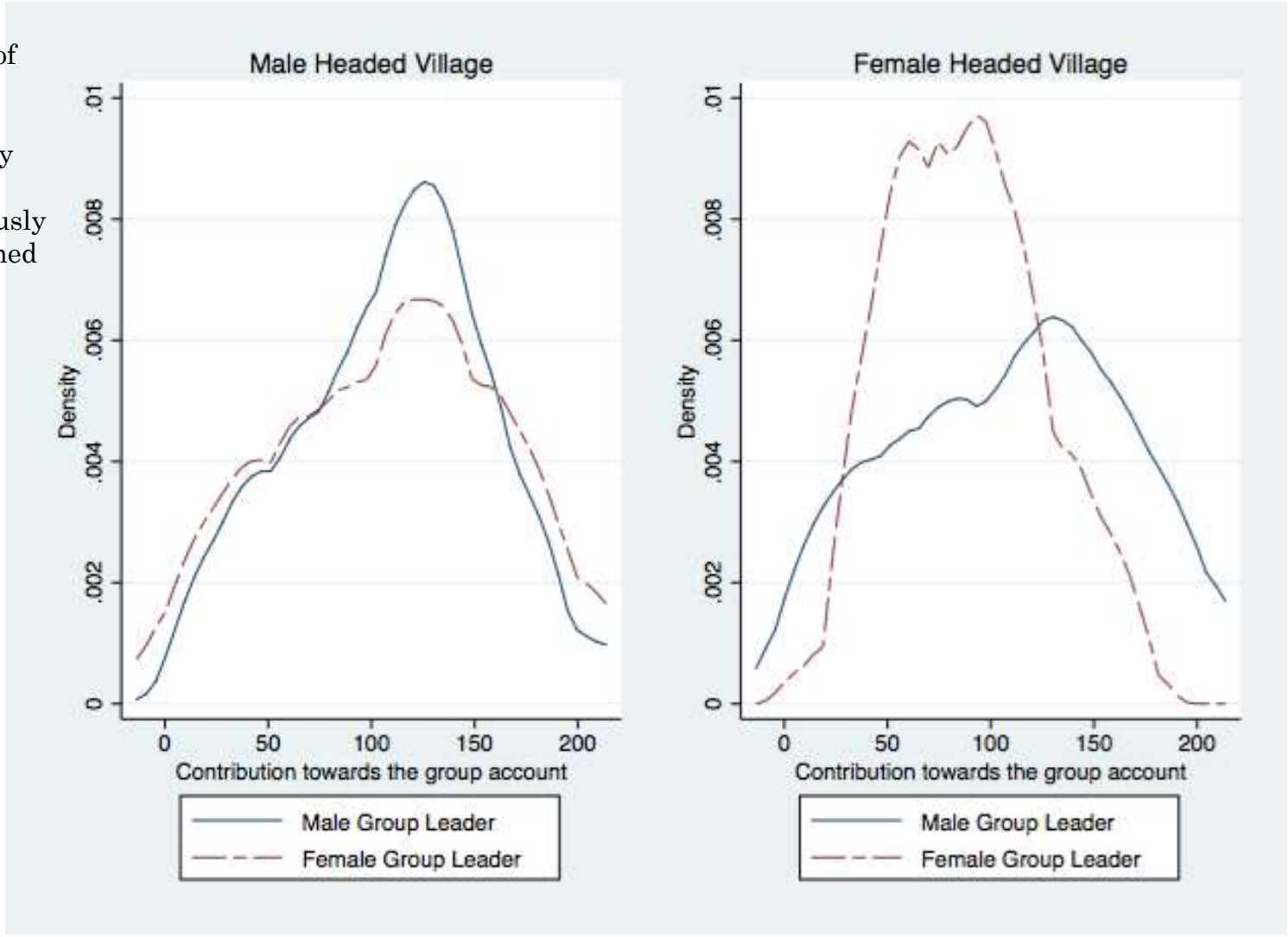
Decisions in Leadership Experiment

	Female	Male
Difference in amount sent to group: Female leader – Male leader	5.60	-12.24*
Female headed village. Difference in amount sent: Female leader – Male leader	-10.11	-21.27*
Male headed village. Difference in amount sent: Female leader – Male leader	-0.03	-1.30

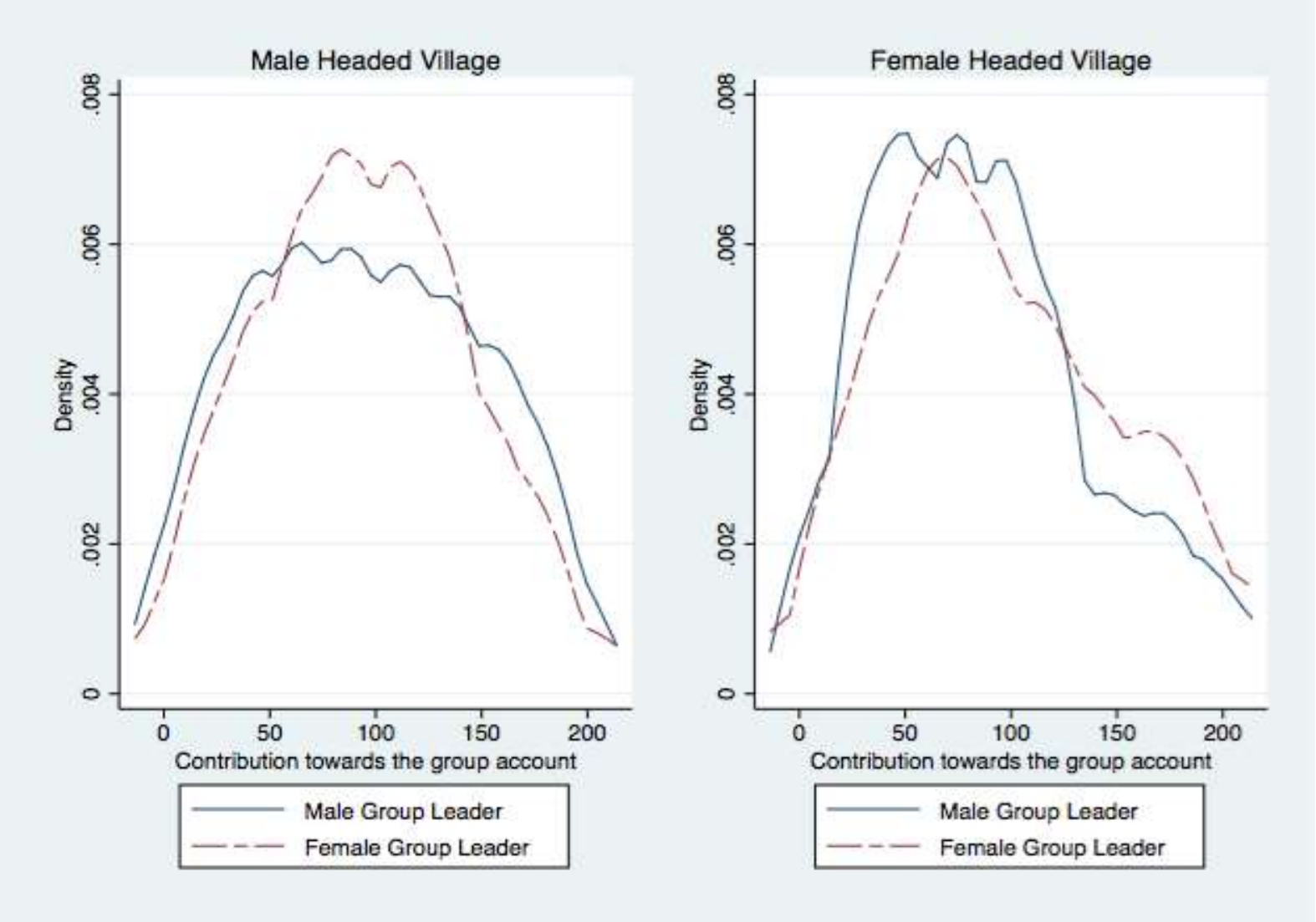
Differences in means: t-test.

- **Result 2:** Male citizens contribute significantly less to female led groups in female headed villages (K-S test, p-value = 0.017).

Gender of Village head is randomly and exogenously determined



- Female citizens: No statistically significant difference



Understanding Backlash: Social Norms Experiment

- Conducted experiments in similar villages: same districts
  - 21 villages, 267 participants (50% women)
- Rate the social appropriateness of a male/female citizen that contributes 0, 50, 100, 150 and 200 towards a male/female leader
- Subjects were paid:
  - Task 1: same response as the modal decision by other men
  - Task 2: same response as the modal decision by other women
  - Task 3: Vignettes: paid according to modal decisions by other subjects
- From Tasks 1 and 2: Males believe that it is more socially appropriate for men to contribute 50% or less of their endowment to a female led group
  - Consistent with Result 1
  - Less socially costly for males to contribute less to female led groups.

Alternative Explanations for Backlash?

- Women are *or* are perceived to be Ineffective Leaders.

- Women are *tokens* for spouses or other powerful elites in the community.

Data from the experiment and the post-experiment survey show that the above have little explanatory power in our setting:

- these alternative arguments cannot explain backlash.

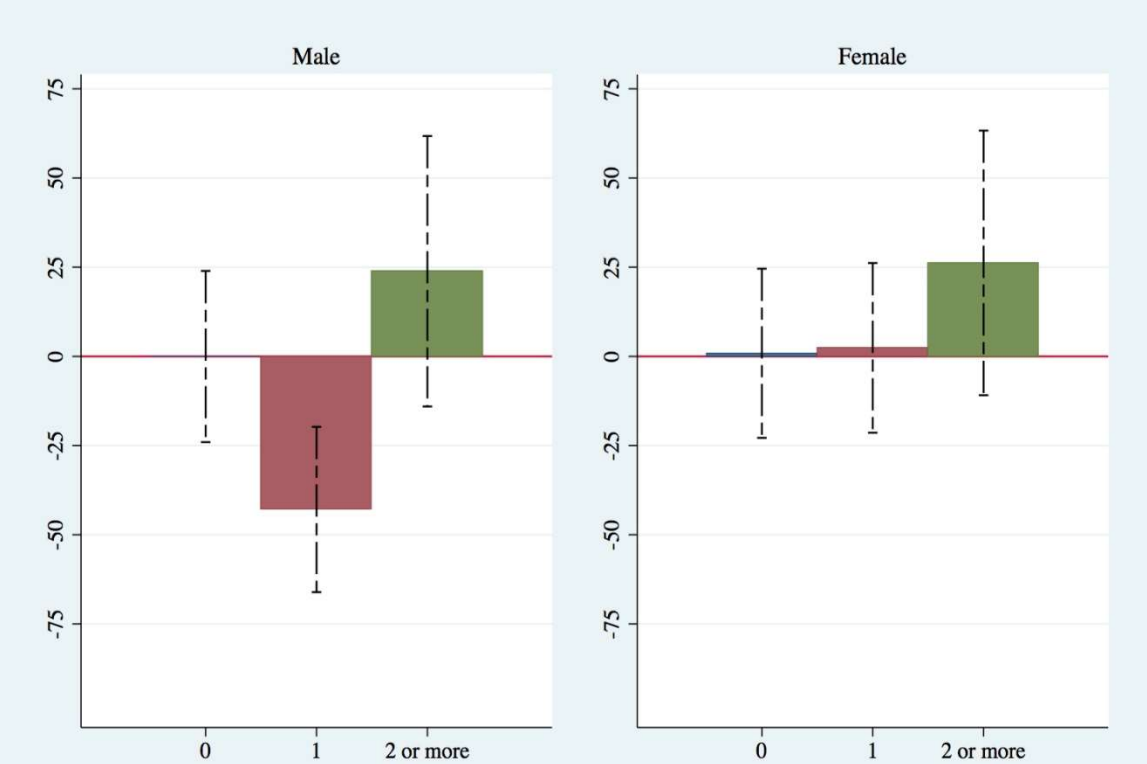
Effect of Increased Exposure

- Can affirmative action policies be effective in situations when violation of identity leads to backlash?

- Perhaps an increase in the intensity of exposure to female heads can change male perceptions about female leaders?

- Exposure intensity (based on last 3 elections)
  - No female head (42.5%)
  - One female head (40%)
  - Two or more female heads (17.5%)

- Increased exposure reduces male bias against female leaders.



Negative effect ceases. Data from Social norms experiment consistent with this.

- Regression equation:
  - Reference category is male group leader in gender not revealed session

For citizen i in group j in village k

$$C_{ijk} = \beta_0 + \beta_1 \text{female}_{ijk} + \beta_2 L^f_{jk} + \beta_3 L^m_{jk} + \beta_4(\text{female}_{ijk} * L^f_{jk}) + \beta_5 (\text{female}_{ijk} * L^m_{jk}) + \gamma X_{ijk} + \eta_k + \varepsilon_{ijk}$$

Additional contribution to female led groups (over male led groups)

Females: $(\beta_2 + \beta_4) - (\beta_3 + \beta_5)$

Males: $\beta_2 - \beta_3$

FRAMEWORK INCORPORATING SOCIAL IDENTITY

- max $u_i = \pi_i + I_i(.)$
  - Where π_i represents standard pecuniary payoffs from the public good
  - $I_i(.)$ represents identity payoffs from when social norms are maintained; adapted from Akerlof and Kranton (2001)

FRAMEWORK INCORPORATING SOCIAL IDENTITY

- The citizen's problem is

  $\text{Max } u_i = e - g_i + \beta \sum g_j + I_{i(}(g^{\sim} - g_i, L, H)$

  - Where: e is the endowment; n is the group size
  - β : Returns to amount contributed to the group account; $\beta < 1 < n\beta$.
  - $g_i \geq 0$: Decision variable for player i
  - I_i : Identity of player i
  - $g^{\sim} - g_i$ Participants' corrective action when identity is threatened
  - L = {m,f}:Leader's gender
  - H= {m,f}: Village head's gender

FRAMEWORK INCORPORATING SOCIAL IDENTITY

- Suppose in the absence of identity, two potential equilibria
  - $g_i = 0$ for all I, is the Nash strategy
  - $g_i = g^{\sim} > 0$ for all I, is the cooperative strategy

- If H= m, neither men's or women's social identity is threatened. So, $g_i = g_j = g^{\sim}$ is likely to be sustained as an equilibrium.

- If L=m, H= f, men's social identity is threatened. However, since the leader is male, men are less likely to take corrective action in the experimental game, and $g_i^m = g^{\sim}$. Women are also likely to contribute $g_i^f = g^{\sim}$ since women's social identity is (presumably) not threatened, and men are less likely to deviate from the cooperative equilibrium. Hence, $g_i = g_j = g^{\sim}$ is more likely to be sustained as an equilibrium.

FRAMEWORK INCORPORATING SOCIAL IDENTITY

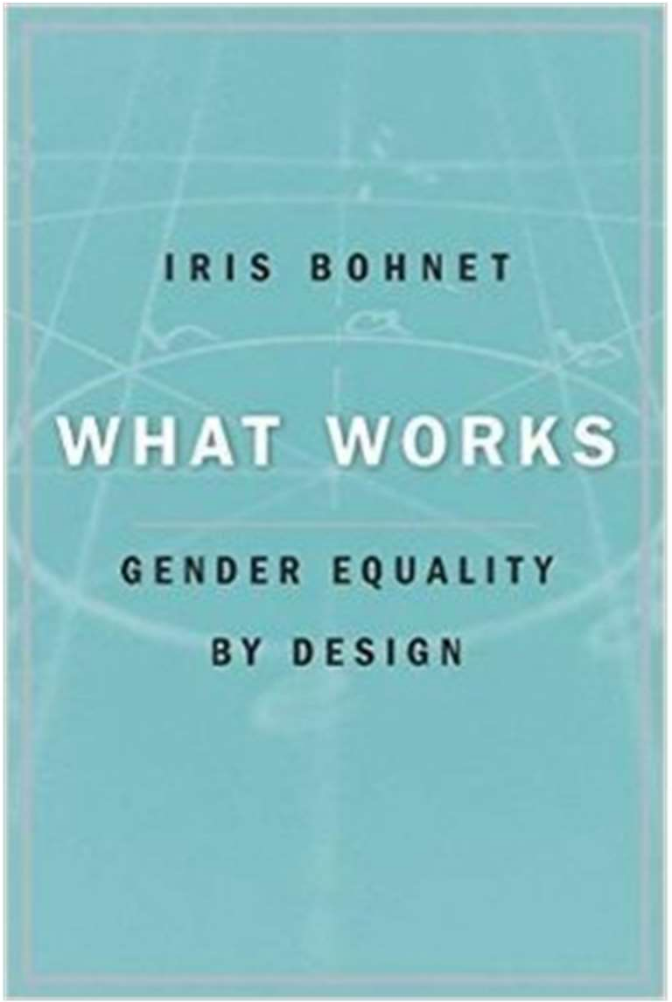
- If L=f, H=f, men's social identity is significantly threatened and they can take corrective action by reducing their investment in the public goods game when the leader is revealed as female.

- By setting $g_i^m = 0$, men increase utility from $I_i(.)$ simultaneously leading to lower contribution to the public account. Thus, for women, equilibrium contribution is also $g_i^f = 0$, leading to lower overall investment when the leader is female in a female headed village.

FRAMEWORK INCORPORATING SOCIAL IDENTITY

- Leader's payoff function
  - $\max v_i = \pi_i + f(\sum g_j)$
- $\Pi_{i:}$ Standard pecuniary payoffs from VCM
- $f(\sum g_j)$, $f'(.) \geq 0$: Leader's non-pecuniary payoffs when group contributions increase
- Through backwards induction, female leaders contribute lower when they are revealed as leaders, and not otherwise.

Motivation



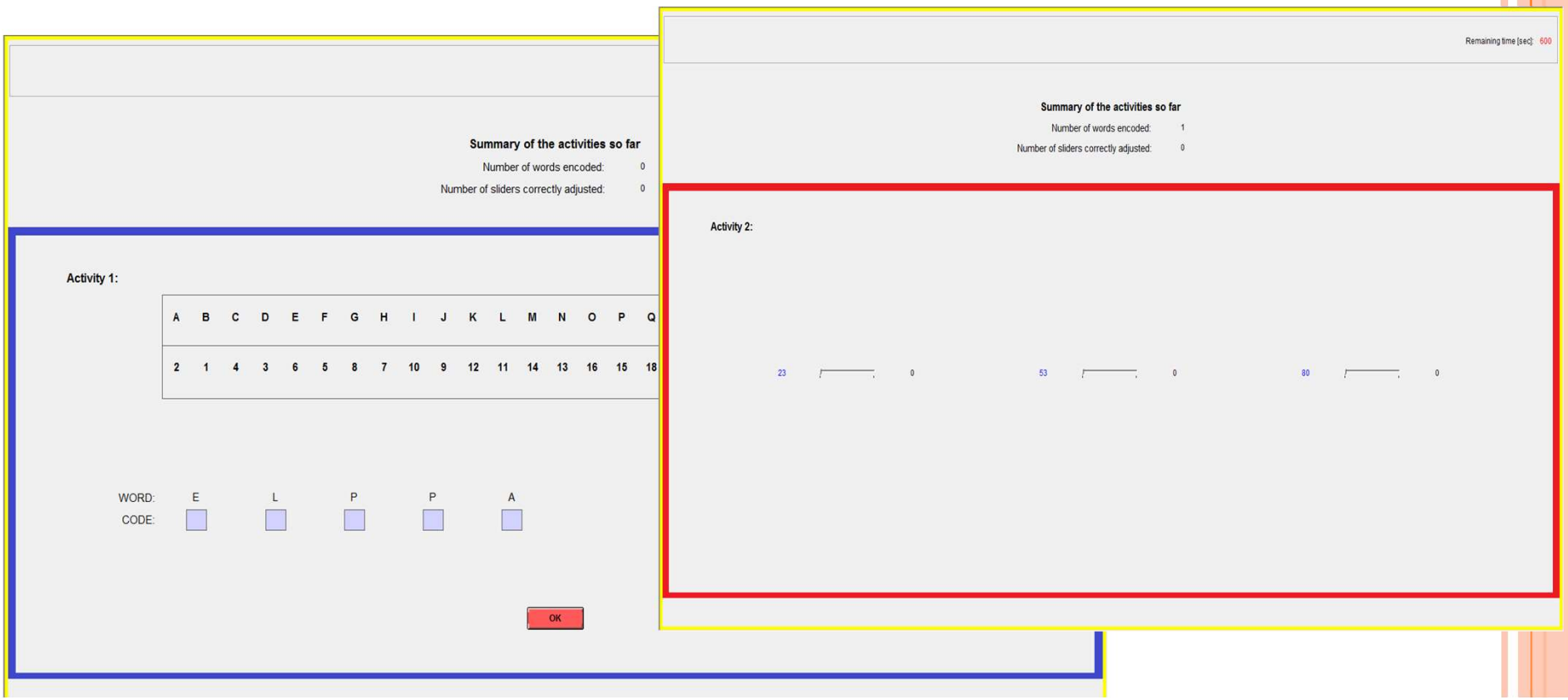
"…Diversity training programs have had limited success, and individual effort alone often invites backlash. Behavioral design offers a new solution. By de-biasing organizations instead of individuals, we can make smart changes that have big impacts…"

ROADMAP FOR TODAY'S TALK

- Motivation
- Research Question
- Experimental Design:
  - Study 1: Opt-in/Opt-out and the Glass Ceiling
    - Framework and Hypotheses
    - Results
  - Study 2: Preferences for Opt-in and Opt-out
    - Feasibility of implementing Opt-Out
    - Perceptions of both mechanisms
- Conclusion

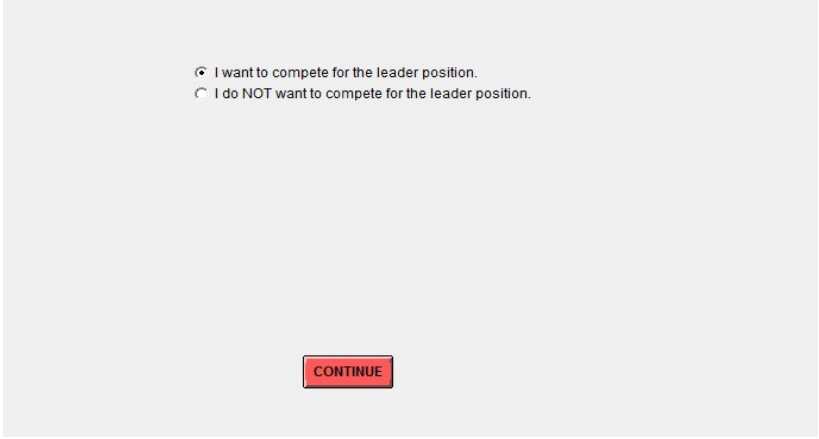
Experiment I: Individual tasks

- 10 minutes to work on two tasks: slider (Gill and Prowse, 2012) and encoding (Erkal et al, 2011).
- Piece rate

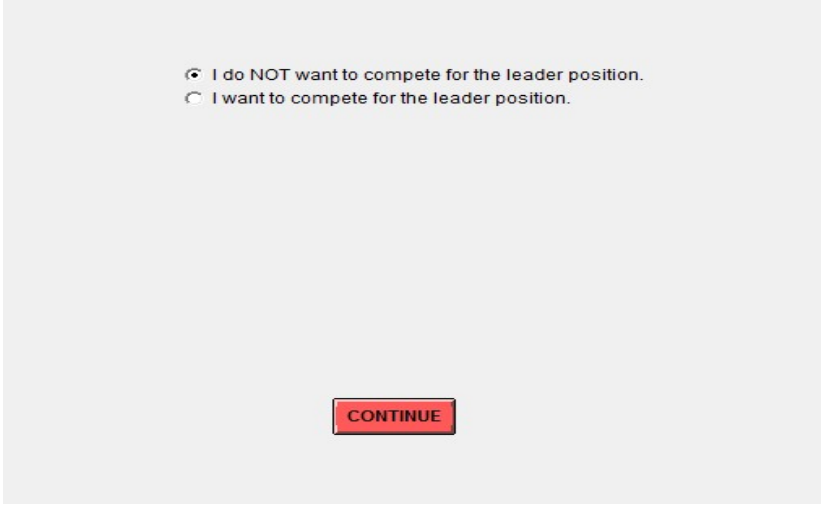


Experiment II: Stage 1 – Leader selection

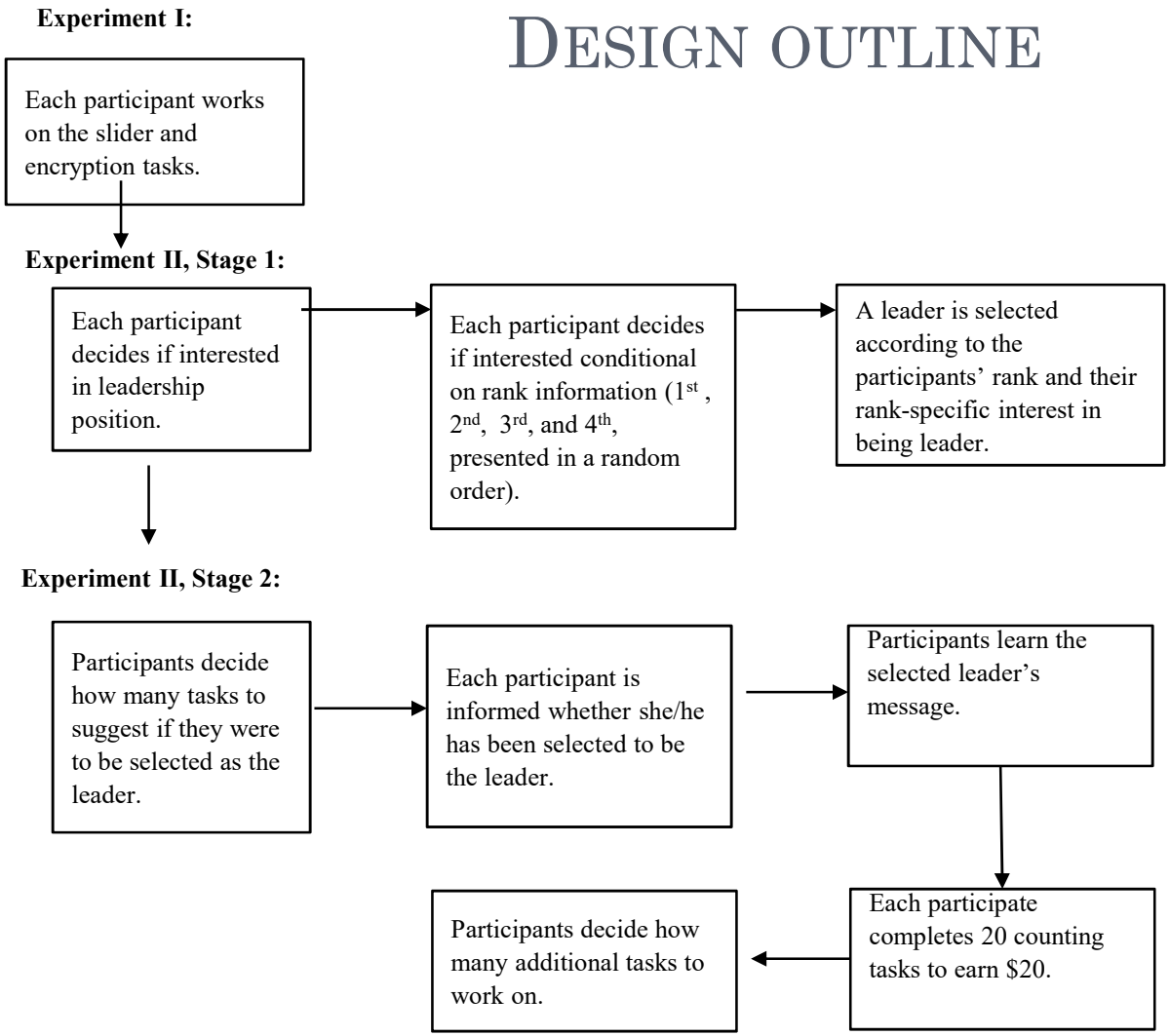
- Opt-out:



- Opt-in:



DESIGN OUTLINE



EXPERIMENTAL PROCEDURE

- Z-tree (programming) and ORSEE (recruiting participants).
- University of Melbourne.
- 6 treatments, total of 496 subjects; Average Earnings: $38.

FRAMEWORK: DECISION TO PARTICIPATE

- The payoff that subject i expects to receive if s/he becomes the leader: L_i
- We assume that both monetary and non-monetary factors (such as personal satisfaction and altruism) contribute to L_i .
  - $E_{i,L}$ and $E_{i,F}$: the (expected) monetary income that subject i would earn in the role of a leader (L) and a follower (F) in Stage 2.
  - P_i : the personal satisfaction that subject i receives from being a leader.
  - G_i : denotes the utility that subject i receives from helping others.

DECISION TO PARTICIPATE

- The payoff that subject i would receive from being the leader:
  - $L_i = P_i + G_{i,L} + E_{i,L}$

- To become the leader, subject i has to choose to participate in the leadership selection process. Subject i's expected payoff from participating in the leadership selection process is
  - $\rho_i \left(E_{i,L} + P_i + G_{i,L}\right) + (1 - \rho_i)\left(E_{i,F} + G_{i,F}\right) + C_i$
    - ρ_i :subject i's subjective probability of winning in the competition for leadership.
    - C_i: the utility or disutility that subjects may receive from competition.

DECISION TO PARTICIPATE

- Individuals participate in leadership selection in N if:

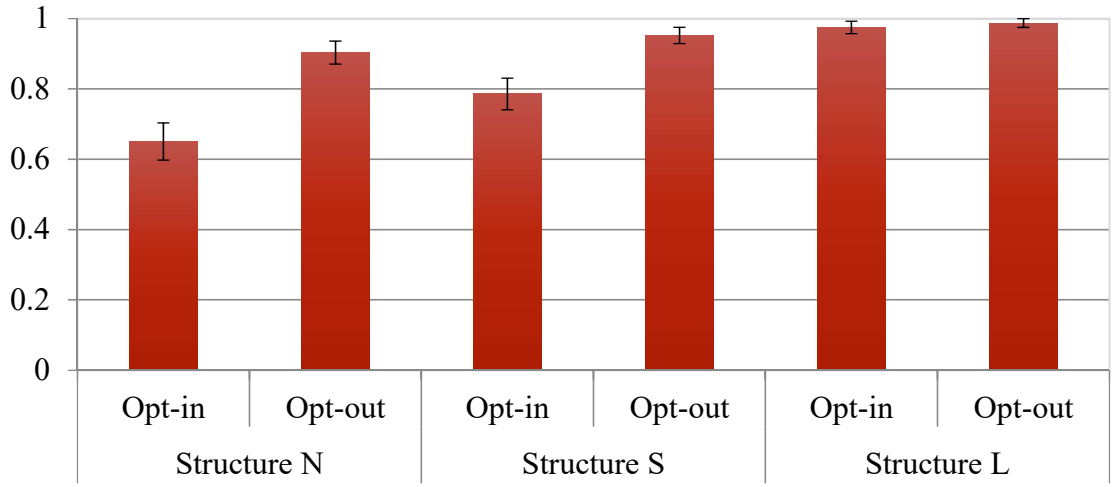
$$\rho_i\left[P_i + \left(G_{i,L} - G_{i,F}\right)\right] + C_i > 0$$

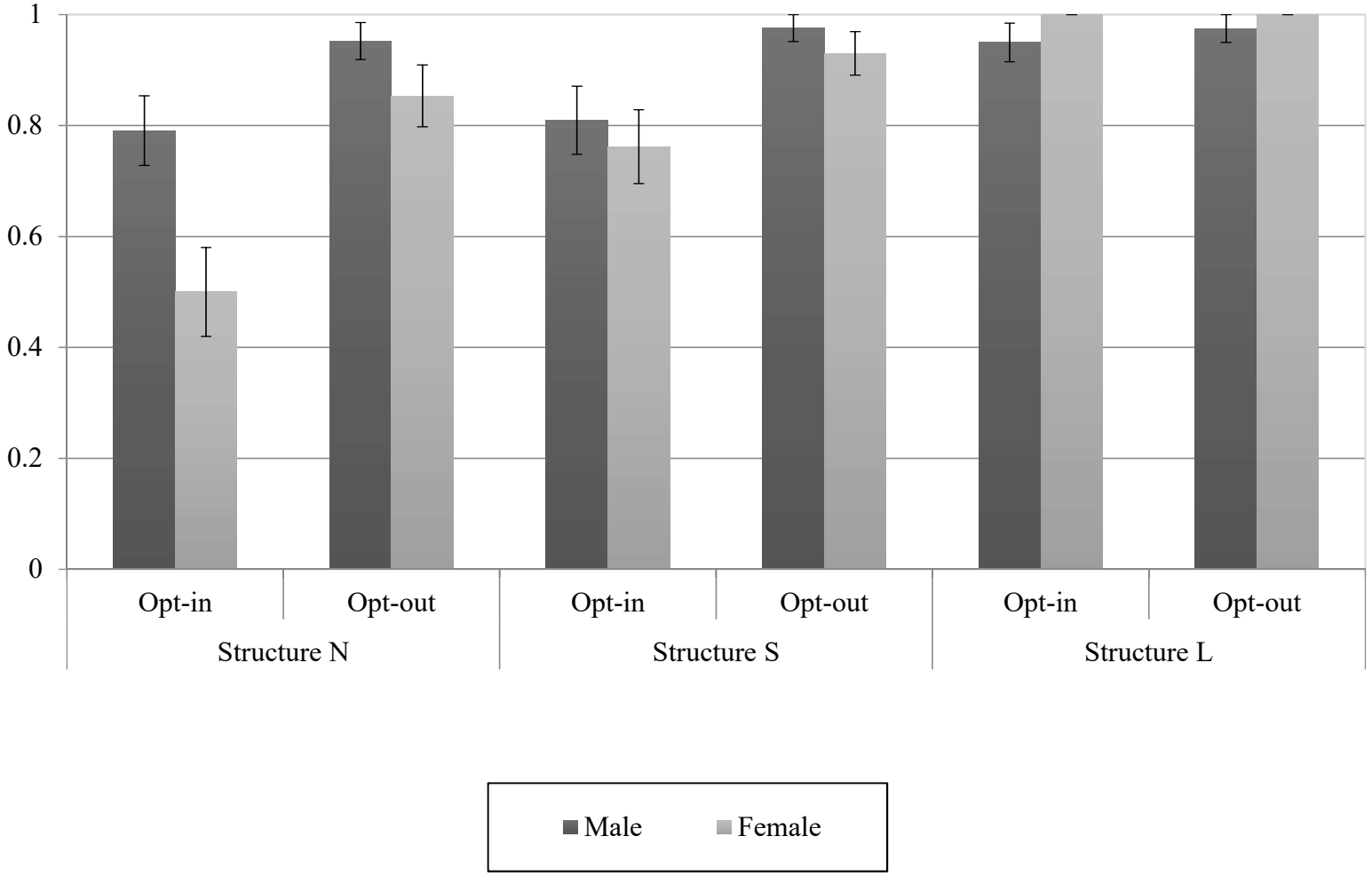
- Suggests that differences in P_i , C_i, ρ_i, $G_{i,L}, G_{i,F}$ may cause gender gaps in leadership
- In addition, monetary incentives ($E_{i,L} - E_{i,F}$) may play a role in the L structure
- Hypothesis: under the Opt-in mechanism, we are less likely to see a gender gap under the Leader scenario than under the other two leadership scenarios.

Results: Decision to Participate

- As expected, highest participation rates under the L structure.
- Default effect on participation: No-Monetary > Shared > Monetary ≈ 0.

Proportion of subjects who participate in leader selection by treatment




1
0.8
0.6
0.4
0.2
0
Opt-in
Opt-out
Opt-in
Opt-out
Opt-in
Opt-out
Structure N
Structure S
Structure L
Male
Female

Results: Decision to Participate (Regressions)

	Regression 1	Regression 2
Opt Out	0.11***	0.154***
	(0.023)	(0.035)
Female	-0.290***	-0.254**
	(0.060)	(0.081)
Opt Out*Female	0.192**	0.193**
	(0.756)	(0.049)
Social Value Orientation		-0.003
		(0.002)
Expectation of the rank		-0.081
		(0.049)
Constant	0.791***	1.007***
	(0.009)	(0.048)
R-squared	0.160	0.199
Observations	166	

Opt-out mechanism significantly reduces the gender gap in the Third-party scenario as compared to the Opt-in mechanism by increasing the participation of women.

RESULTS: WILLINGNESS TO PARTICIPATE CONDITIONAL ON RANK

	Top 2	Bottom2
Opt Out	0.102** (0.034)	0.261*** (0.054)
Female	-0.241*** (0.026)	-0.178** (0.061)
Opt Out*Female	0.226** (0.079)	0.062 (0.068)
Constant	0.791*** (0.028)	0.453*** (0.022)
R-squared	0.126	0.118
Observations	166	

The Opt-out increases participation of women in general and is very effective for those in top 2 positions.

Results: Conditional on Rank

	Coefficient
β_1 : Top2*Female*Opt Out	0.321***
β_2 : Top2*Male*Opt Out	0.275***
β_3 : Top2*Female*Opt In	0.162***
β_4 : Top2*Male*Opt In	0.309***
Constant	0.512***
Wald chi2(4)	286.85
Observations	332
β_1 vs.β_2	chi2(1)=0.47 p=0.494
β_3 vs.β_4	chi2(1)=85.86 p=0.000
β_1 -β_2 vs.β_3 -β_4	chi2(1)=7.71 p=0.006

- Under Opt-in an improvement in rank (and therefore the chance of winning) has a more significant effect on men's willingness to take on leadership positions than women's.
- With the Opt-out mechanism, the gender difference disappears.

Results: Team Performance Outcomes

- We use three measures and compare across the Opt-in and Opt-out mechanism:
  - Quality of the chosen leader: 17/21 selected leaders under Opt-in and 19/21 selected leaders under Opt-out were the best performers in their group in Experiment 1.
    - high-performers are not less likely to consider leadership positions under the Opt-out mechanism
  - The number of suggested tasks: No significant difference between the two mechanisms in the number of tasks suggested.
  - The number of completed tasks: No significant difference in the number of additional tasks completed by participants.

Results: Team Performance Outcomes

- the number of suggested tasks: no significant difference between the two mechanisms in the number of tasks suggested

		Mean (s.e.)
Wanted to be considered	Opt-out ((# of obs.: 75)	19.31 (1.49)
	Opt-in (# of obs.: 54)	18.81 (1.80)
	p-value[1]	0.788
Leaders	Opt-out (# of obs.: 21)	16.76 (2.43)
	Opt-in (# of obs.: 21)	21.48 (3.15)
	p-value	0.326

NO SIGNIFICANT DIFFERENCE IN THE NUMBER OF ADDITIONAL TASKS COMPLETED BY PARTICIPANTS.

		Mean (s.e.)
Non-leaders	Opt-out (# of obs.: 62)	24.23 (1.73)
	Opt-in (# of obs.: 62)	24.90 (1.78)
	p-value[1]	0.711
leaders	Opt-out (# of obs.: 21)	27.81 (3.13)
	Opt-in (# of obs.: 21)	25.05 (3.21)
	p-value	0.542

Participants completed significantly more tasks when the suggested number is high compared to when it is low: leader's suggestion does have an impact.

LEADERSHIP SELECTION WITHOUT COMPETITION

- If it is mainly differences in preferences for competition (C_i) which are responsible for the gender gap observed under the Opt-in mechanism, then we would expect the gender gap to disappear in the Opt-in (No Competition) treatment.

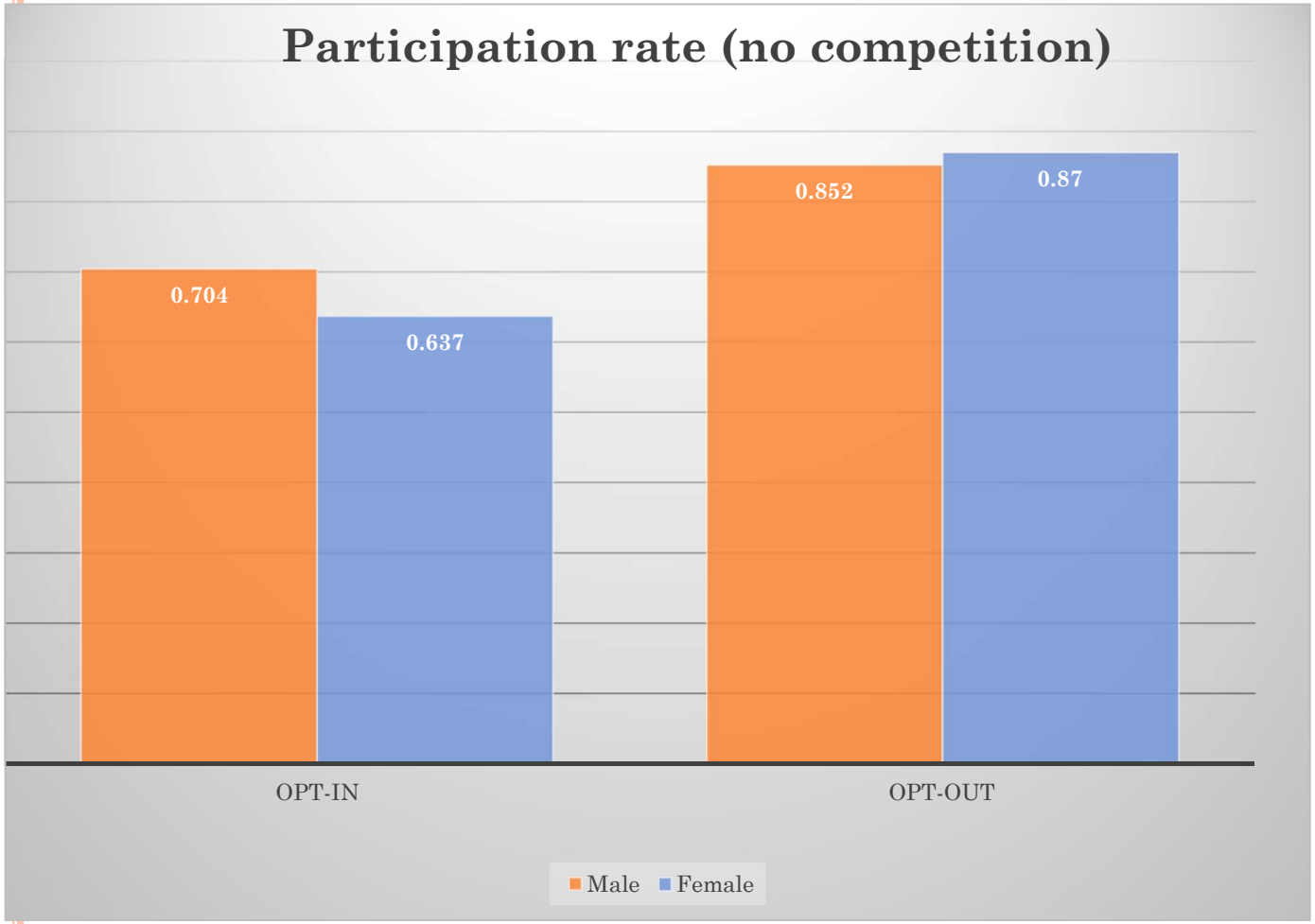
- However, if both differences in preferences for competition and differences in preferences for leadership P_i^S, contribute to the gender gap observed under the Opt-in mechanism, then we would still expect to observe a gender difference in the Opt-in (No Competition) treatment.

- Moreover, if the change of the default affects the personal satisfaction from being a leader, (P_i^S), then the Opt-out mechanism should result in a higher participation rate (among both men and women) even in a non-competitive environment.

FINDINGS

- Gender difference not significant: differences in willingness to compete under the default of no participation therefore plays an important role.
- Opt out increases both male and female participation significantly.

P=0.005 for women and =0.065 for men.

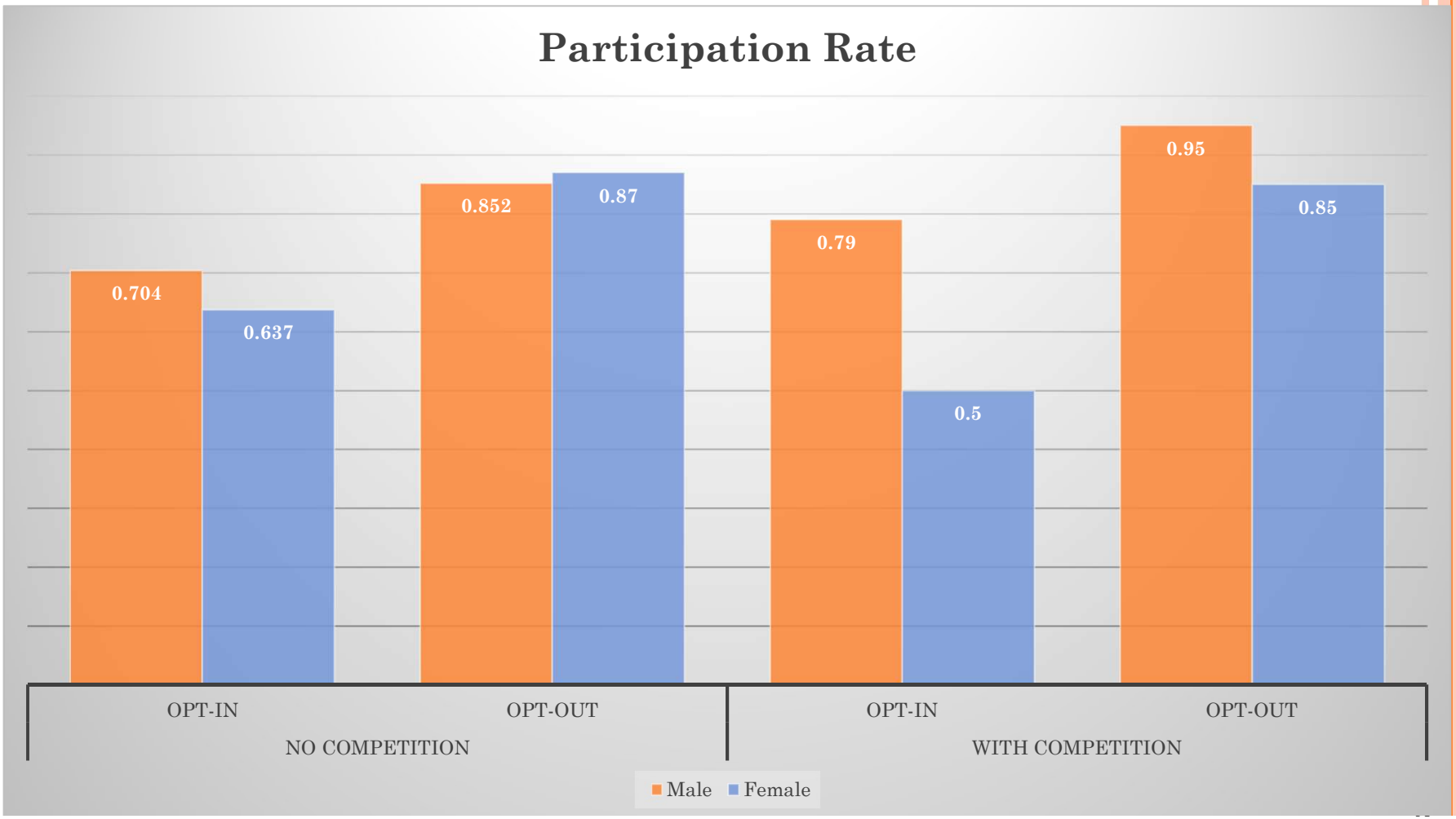


Findings:

Opt-out helps with and without competition.

Helps eliminate the gender gap we see under competition.

It also helps increase participation in the absence of competition.



SUMMARY

- The Opt-out mechanism can be an effective way to encourage more women to participate in the leadership selection process without worsening leadership outcomes.

- Remaining question: What are the preferences over the two mechanisms?
  - Are people willing to work in organizations that use an Opt-out mechanism?
  - Is the Opt-in mechanism more popular because people do not like the Opt-out mechanism?

STUDY 3: A BRIEF SUMMARY

- Similar to Study 1: except, add another stage at the start of Exp II. Subjects choose between the Opt-in (Method X) and Opt-out (Method Y). One subject's choice is randomly selected and implemented.
  - Overall, subjects do not have a strong preference for one mechanism over the other (164 subjects)

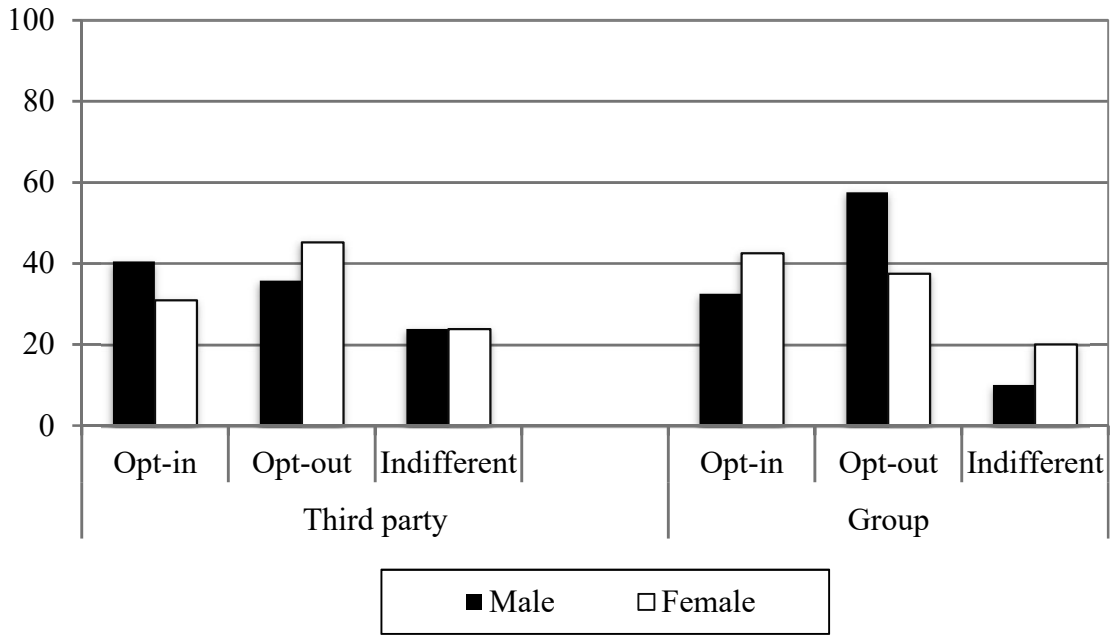
- Open ended questions at the end of the experiment to explain the reasons for their choice. Conducted incentivized content analysis of the survey responses, with 29 subjects.
  - Opt-out not perceived inferior by those who value fairness and who would like to maximize their chance of leadership; viewed as the better option for ensuring quality of leadership.
  - less preferred by those who care about freedom of choice (less than 10% of subjects) .
  - In implementation stage: one could ensure these views/perceptions are addressed.

STUDY 3

- Similar to Study 1: except, add another stage beginning of Experiment II.
- Experiment II:
  - Stage 1: Random assignment to groups of four. Subjects choose between the Opt-in (Method X) and Opt-out (Method Y) mechanisms. One subject's choice is randomly selected and implemented.
  - Stage 2: The leader is selected.
  - Stage 3: The leader suggests to the group how many tasks to complete.

RESULTS

- Overall, people do not have a strong preference for one mechanism over the other (164 subjects)



RESULTS

- Open ended questions at the end of the experiment to explain the reasoning behind their decisions.
- Conducted incentivized content analysis of the survey responses (Houser and Xiao, 2011).
- Two research assistants (blind to the research hypotheses)
- Seven categories were created based on responses.
- We recruited 29 subjects to code the responses using these categories.
- The coding was incentivized.
  - Three responses were randomly picked for each subject. For each, if a coder's chosen category matched the most commonly chosen one by the rest of the coders in the session, he was paid $5 for that message.

REASONING BEHIND THEIR DECISIONS

	Third-party (%)	Group (%)
Freedom of choice	5.95 (0.39)	10.00 (0.47)
Fairness	17.86 (0.60)	10.00 (0.49)
Quality of the leader	15.48 (0.44)	18.75 (0.58)
My chance of winning	16.67 (0.49)	26.25 (0.66)
Learn my rank in Experiment I	11.90 (0.64)	8.75 (0.65)
No Preference	27.38 (0.66)	20.00 (0.77)
Other	2.38 (0.17)	6.25 (0.32)
Total # of Obs.	84*	80

The numbers in the parentheses are the kappa-statistic measure of inter-rater agreement:
values ≤ 0 as indicating no agreement, 0.01–0.20 as none to slight, 0.21–0.40 as fair, 0.41– 0.60 as moderate, 0.61–0.80 as substantial, and 0.81–1.00 as almost perfect agreement.

Reasons for Opt-in and Opt-Out

	Third-party			Group			Pooled		
	Total #	Opt-in (%)	Opt-out (%)	Total #	Opt-in (%)	Opt-out (%)	Total #	Opt-in (%)	Opt-out (%)
Freedom of choice	5	60.00	20.00	8	75.00	25.00	13	69.23	23.08
Fairness	15	33.33	66.67	8	50.00	50.00	23	39.13	60.87
Quality of the leader	13	53.85	46.15	15	6.67	93.33	28	28.57	71.43
My chance of winning	14	42.86	35.71	21	57.14	42.86	35	51.43	40
Learn rank in Experiment 1	10	30.00	70.00	7	28.57	71.43	17	29.41	70.59
No Preference	23	21.74	8.69	16	6.25	18.75	39	15.38	12.82
Other	2	0.00	100.00	5	80.00	20.00	7	57.14	42.86
Total Obs. #	84*	29	33	80	30	38	164	35.98	43.29

Summary: Opt-out not perceived inferior by those who value fairness and those who would like to maximize their chance of leadership.

It is viewed as the better option for ensuring quality of leadership.

Opt-out less preferred by those who care about freedom of choice (less than 10% of subjects see this as an important factor).

In implementation stage: one could ensure these views/perceptions are addressed.

Conclusion

- Implementation of an Opt-out mechanism in organizations may be enabled by some adjustments in the culture of the institution.
  - For example, care can be taken such that people do not see the Opt-out as reducing their freedom of choice.
    - Mechanism can be designed such that people are not forced into leadership: administer pre-surveys to elicit broad interest in leadership. Also press a button to confirm.
  - Opt-out mechanism and transaction costs.
    - One can define eligibility criteria such that this is minimized.
  - Opt-out and un-intended signals.
    - Can be designed to mitigate such concerns: a button to confirm design conveys the norm of participation and yet allows those who really do not want to participate to do so by not taking any action rather than explicitly expressing their desire not to participate.

CONCLUSION

- The results have implications for the literature on gender differences in competitiveness.
  - In all these studies, the researchers examine the choice of competition under an Opt-in mechanism.
  - This research shows that women are less likely to enter the competition than men (Niederle and Vesterlund, 2007; Balafoutas and Sutter, 2012; Flory et al., 2015).
  - Our findings suggest that the existing results on gender differences in competition may be due to the Opt-in mechanisms used in these studies.

CONCLUSIONS

- In the field, the Opt-out mechanism may have a stronger impact.
  - Help avoid negotiation stress.
  - Backlash that women may face under Opt-in when they explicitly put themselves forward as candidates can be avoided.

- Implementation of an Opt-out mechanism in organizations may be enabled by some organizational features.
  - For example, where eligibility criteria can be precisely defined.

  - Universities Australia: Best Practice Gender Equality Recruitment Guidelines to Fast Forward the Advancement of Women in Australian University Executive Appointments