What can behavioral economics tell us about gender equality?

Lecture 4: Gender identity, stereotypes and norms

PhD Course, May 2019, Oslo

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This lecture

- Introduction
- Stereotypes – a definition and taxonomy
- How do we explore stereotypes in economics and what do we find?
- The economic impact of identity and gender roles.
- Discussion

Aim of this lecture

- Acquire knowledge about economic research on stereotypes and gender identity.
- Deeper understanding of how stereotypes are studied in economic research.
- Deeper understanding how stereotypes and related concepts may impact economic behavior and shape economic outcomes.
- Reflect a bit on our own role as researchers with respect to stereotypes.
- Identify new research opportunities.

Borrowed from Emma von Essen

Stereotypes - a definition

- The oxford English dictionary defines a stereotype as a "widely held but fixed and oversimplified image or idea of a particular type of person or thing."
- We use stereotypes when we assign characteristics based on group membership.
  - *"Women are bad at math," or "Women are docile and generous."*
  - *"Asians are good at math," or "Irish are red-headed."*
- Solid belief but may evolve over time.
- 3 broad approaches to stereotypes:
  - Economics: Manifestation of statistical discrimination based on rational expectations about group members.
  - Sociology: Incorrect and derogatory generalizations about group traits based on prejudice, possible used to justify discrimination.
  - Social psychology: Intuitive generalizations that save cognitive effort.

Stereotypes
Bordalo et al. (2016 QJE)

- Model stereotypes as a cognitive schema or heuristic (approach 3) that reduces cognitive effort.
- Stereotypes may be useful, and have some truth to them, but exaggerate differences.
- Concentrated around group features that are very distinctive for a group (large between group differences, small within).
- Based on the representative heuristic proposed by Kahneman and Tversky which suggests that "an attribute is representative of a class if it is very diagnostic; that is, the relative frequency of this attribute is much higher in that class than in the relevant reference class."

The representative heuristic

"Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations."

Which is more probable?

- Linda is a bank teller.
- Linda is a bank teller and is active in the feminist movement.

Many people would identify her as a feminist bank teller, although it is far more likely that Linda is a bank teller. She fits in with our existing ideas of how a feminist might be.

Stereotypes
Bordalo et al. (2016 QJE)

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- High representativeness is captured in Bordalo et al. through a high likelihood ratio in the equation

$$\frac{\Pr(T = t|G)}{\Pr(T = t|-G)}$$

- where t is the type and G the group.
- It means stereotypes are context dependent, and vary with the traits of the reference group.
- The most representative types come to mind first, leading us to overestimate the proportion of a specific type.

Stereotypes
Bordalo et al. (2016 QJE)

- In this framework, a stereotype can be based on something that is not very common, it is just more uncommon in other groups. Consider the stereotype "Florida residents are elderly."

age	0 – 19	20 – 44	45 – 64	65+
Florida	24.0%	31.7%	27.0%	17.4%
US	26.9%	33.6%	26.4%	13.1%

- Actual differences are not that great, but the largest difference is among retired people.
- Bordalo et al. tests this in the laboratory, varying the base rate and showing how lower base rates imply overestimation of representative types. For details on the model, see Bordalo et al. (2016).

A taxonomy of stereotypes

Fiske et al. (2002)

- Fiske et al. argues that stereotype content can be captured by 2 dimensions: warmth and competence.
- The assigned warmth and competence depend on 2 other dimensions: Social status and ”competitiveness.”
- Perceived high status predicts perception of competence, perceived threat predicts low warmth.
  - High warmth/low competence: Paternalistic
  - High warmth/high competence: Admiration
  - Low warmth/low competence: Contempt
  - Low warmth/high competence: Envious

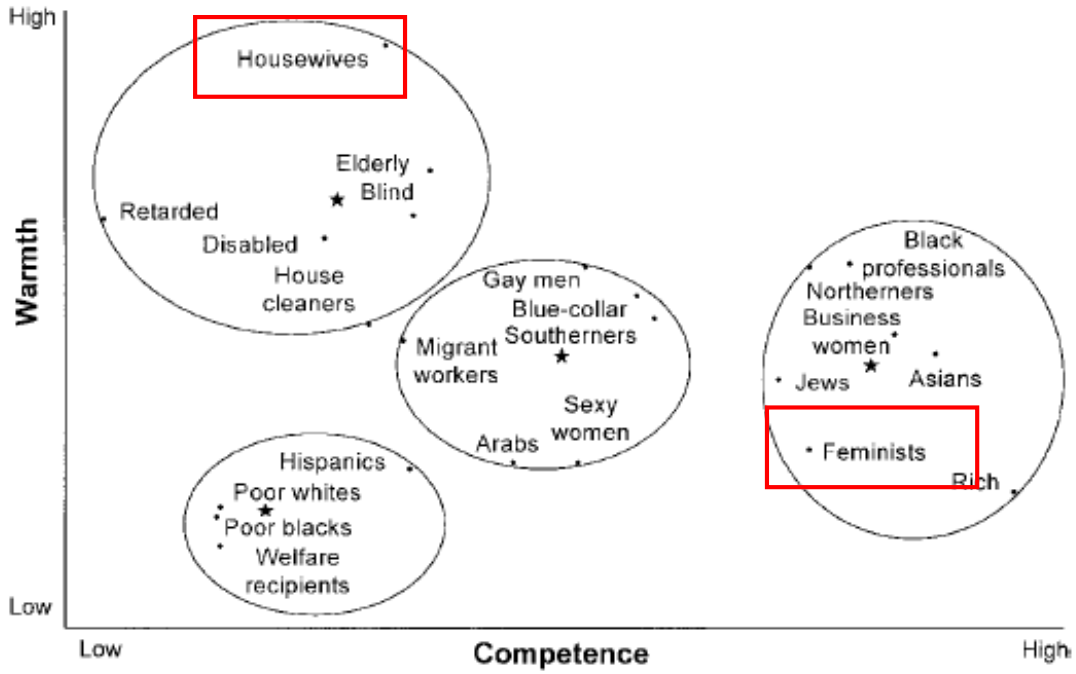

Figure 1. Four-cluster solution, Study 1, long survey, student sample.

How do we measure the impact of stereotypes?

- Stereotype threat (e.g., Steel and Aronson 1995, Flore et al. 2019)
- Priming (Benjamin et al. 2010, Boschini et al. 2014)
- Framing (e.g., Ellingsen et al. 2013)
- Discrimination across differently stereotyped tasks (e.g., Coffman et al. 2018)
- Psychological Instruments
  - Implicit Association Test (Greenwald et al. 1998)
  - Scales to measure attitudes
  - Vignettes

Vignettes

- A vignette is a brief evocative description, account, or episode presented to the participant to measure attitudes.
- A well-known vignette example is the trolley problem.

- "You see a runaway trolley moving toward five tied-up (or otherwise incapacitated) people lying on the tracks. You are standing next to a lever that controls a switch. If you pull the lever, the trolley will be redirected onto a side track, and the five people on the main track will be saved. However, there is a single person lying on the side track. You have two options:
  - Do nothing and allow the trolley to kill the five people on the main track.
  - Pull the lever, diverting the trolley onto the side track where it will kill one person.

- Which is the more ethical option?"

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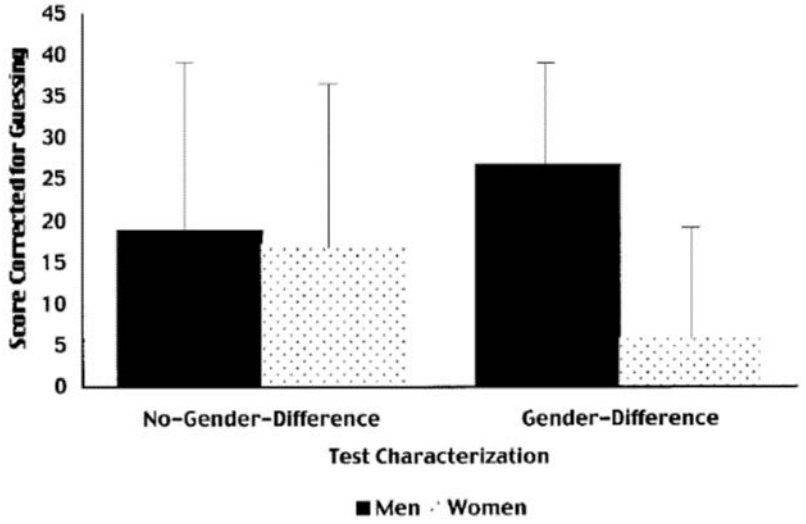
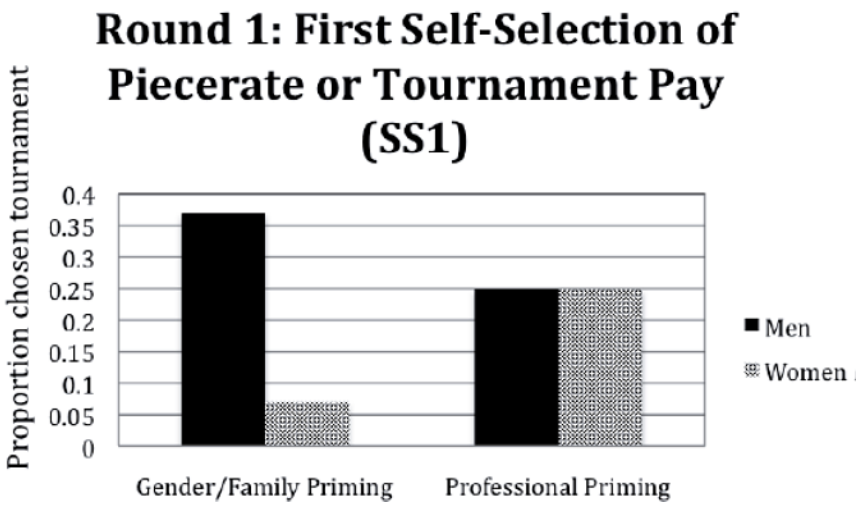
- Discrimination across differently stereotyped tasks (e.g., Coffman et al. 2018)
- Psychological Instruments
  - Implicit Association Test (Greenwald et al. 1998)
  - Scales to measure attitudes
  - Vignettes
- An economic approach to measuring norms is worth mentioning: Krupka and Weber (2013)

The impact of stereotypes

- Stereotype threat: Being at risk of confirming negative stereotypes about one's group increases stress and impacts performance.
  - Women tend to underperform on difficult math tests when gender is salient, but not when it is less salient (e.g. Spencer et al. 1999, but, this literature has been criticized).
- Gender identity: Social roles imply prescriptions about behavior and characteristics. Violating these prescriptions generate anxiety and discomfort, both in others and one self.
  - Female MBAs primed with gender/family identity are significantly less competitive than when primed with professional identity, whiles males are not (e.g. Cadsby et al. 2012).





Self-stereotyping and the recognition of knowledge

Coffman (2014), Bordalo et al. (2017) and Coffman et al. (2019)

- As indicated by the previous slide, stereotypes are not only a basis for discrimination, but can also give rise to "self-stereotyping" where men and women change their behavior, or their perception of their own relative ability, depending on stereotypes.
- In a series of papers Coffman and coauthors explore how stereotypes impact beliefs about the competence of men and women.
- These papers show men and women underestimate their own and other´s ability in areas associated with the opposite sex stereotype.
- They also underline the costs of these stereotypes in terms of difficulties to recognize and use expertise, and how groups fail to identify expertise.

Self-stereotyping and the contribution of ideas

Coffman (2014)

- Today a very large share of productive activity in general is performed in different types of teams.
- The output and decisions of groups are the result of the different group members' contributions and how this is combined to a final product.
- Research question: What determines whether an individual contributes her ideas to a group?
  - Can gender and gender stereotypes lead to low contributions of women in male stereotype domains, and contribute to the gender gap in, e.g., STEM fields or business?

Self-stereotyping and the contribution of ideas

Coffman (2014)

- Experiment design:
  1. Individual quiz in 6 different categories that vary in their gender stereotype (arts and literature vs sports and games, as judged by participants).
  2. Participants are randomized to pairs and answer similar questions as in the first part.
     - To answer, each participant indicates how willing they are to have their answer count for the pair (This is done by indicating their preferred position in a line from 1-4, compare how long to wait to raise your hand, how assertive you want to be).
     - The participant who is most willing automatically has her answer submitted for the pair.
     - Group answers determine payoffs and are observable at the end of the study.
  3. Confidence in own and partner ability is elicited.
- Importantly, this design excludes discrimination (and beliefs thereof). Whether a participant's answer is taken into consideration depends only on the relative willingness to contribute.
- Treatments vary if relative performance is known, and whether an individual's photo is presented together with the answers provided by the group at the end.

Self-stereotyping and the contribution of ideas

Coffman (2014)

- Result:
  - Contribution decisions are impacted by both ability and the interaction between gender and the gender stereotype of the question category.
    - Conditional on ability (wo)men are more likely to contribute ideas to questions that are (fe)male stereotyped, and this tendency is particularly strong for women.

Self-stereotyping and the contribution of ideas

Coffman (2014)

TABLE IV

WILLINGNESS TO CONTRIBUTE

OLS predicting position in line for question *i* in Part C

Category	Art	Pop	Env	Hist	Geo	Sports	Pooled
Maleness *z*-score	−1.18	−1.01	0.13	0.23	0.27	1.56	
Female dummy	−0.226****	−0.090*	0.217****	0.145**	0.296****	0.383****	0.145***
	(0.065)	(0.048)	(0.067)	(0.071)	(0.065)	(0.058)	(0.048)
Maleness of category							−0.120****
							(0.013)
Female × maleness							0.265****
							(0.019)
Answered qn. *i* correctly	−0.480****	−0.977****	−0.683****	−0.415****	−0.553****	−1.003****	−0.706****
	(0.053)	(0.058)	(0.040)	(0.046)	(0.048)	(0.046)	(0.023)
Part B score in category	−0.081****	−0.016	−0.103***	−0.119****	−0.081***	−0.067**	−0.024***
	(0.025)	(0.025)	(0.034)	(0.026)	(0.031)	(0.031)	(0.009)
Constant	3.53****	4.27****	2.26****	3.42****	2.80****	3.78****	3.33****
	(0.226)	(0.175)	(0.294)	(0.273)	(0.252)	(0.255)	(0.193)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	460	460	460	460	460	460	460
Obs.	2,299	2,300	2,300	2,298	2,298	2,298	13,793
R^2	0.268	0.548	0.160	0.170	0.166	0.322	0.241

Notes. Lower positions in line indicate greater willingness to contribute. Maleness *z*-score is the *z*-score of the average perception of the gender type of the category elicited from participants. The unit of observation is individual *j*'s answer to a Part C question *i*, standard errors clustered at individual level. Controls are treatment dummies, race dummies, session size, gender composition of session, U.S. high school dummy, OSU undergrad dummy, and overall probability of a correct answer in our sample for that particular question *i* from Part C. *Significant at the 10% level, **5% level, ***1% level, ****0.1% level.

Self-stereotyping and the contribution of ideas

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- Result:
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    - Conditional on ability (wo)men are less likely to contribute ideas to questions that are (fe)male stereotyped, and this tendency is particularly strong for women.
  - Why do we these differences? These contribution patterns are partly explained by confidence, which varies significantly (and a lot!) with how gender congruent the question is.

Self-stereotyping and the contribution of ideas

Coffman (2014)

TABLE V

PREDICTING PARTICIPANT BELIEFS ABOUT PART B PERFORMANCE

Probit predicting Pr(guessed she had highest Part B score in group)							
Category	Art	Pop	Env	Hist	Geo	Sports	Pooled
Maleness z-score	−1.18	−1.01	0.13	0.23	0.27	1.56	
Female dummy	0.211****	0.207****	−0.021	−0.132***	−0.254****	−0.416****	−0.088****
	(0.052)	(0.051)	(0.051)	(0.051)	(0.050)	(0.045)	(0.023)
Maleness of category							0.121****
							(0.015)
Female × maleness							−0.249****
							(0.021)
Part B score in category	0.123****	0.075***	0.100****	0.125****	0.089****	0.125****	0.092****
	(0.023)	(0.026)	(0.026)	(0.022)	(0.025)	(0.028)	(0.008)
Constant	0.403****	0.389****	0.614****	0.390****	0.511****	0.438****	0.457****
	(0.021)	(0.022)	(0.022)	(0.021)	(0.022)	(0.020)	(0.009)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Clusters	460	460	460	460	460	460	460
Obs.	460	460	460	460	460	460	2,760
Pseudo R^2	0.114	0.071	0.054	0.121	0.067	0.231	0.113

Notes. Interaction corrected using Norton, Wang, and Ai (2004). Controls are treatment dummies, race dummies, session size, gender composition of session, U.S. high school dummy, OSU undergrad dummy; standard errors clustered at subject level for pooled specification; marginal effects reported. *Significant at the 10% level, **5% level, ***1% level, ****0.1% level.

Self-stereotyping and the contribution of ideas

Coffman (2014)

- Result:
  - Contribution decisions are impacted by both ability and the interaction between gender and the gender stereotype of the question category.
    - Conditional on ability (wo)men are less likely to contribute ideas to questions that are (fe)male stereotyped, and this tendency is particularly strong for women.
  - Why do we these differences? These contribution patterns are partly explained by confidence, which varies significantly (and a lot!) with how gender congruent the question is.
  - As a result of stereotyped beliefs, group performance is negatively influenced.
    - Groups miss out on correct answers.
    - They fail to recognize the expert when the experts gender does not match the stereotype associated with an area.
    - "…talented women are much less likely than talented men to be recognized as most knowledgeable in male-typed domains, simply due to the fact that they contribute their ideas less often."

Self-stereotyping and the contribution of ideas

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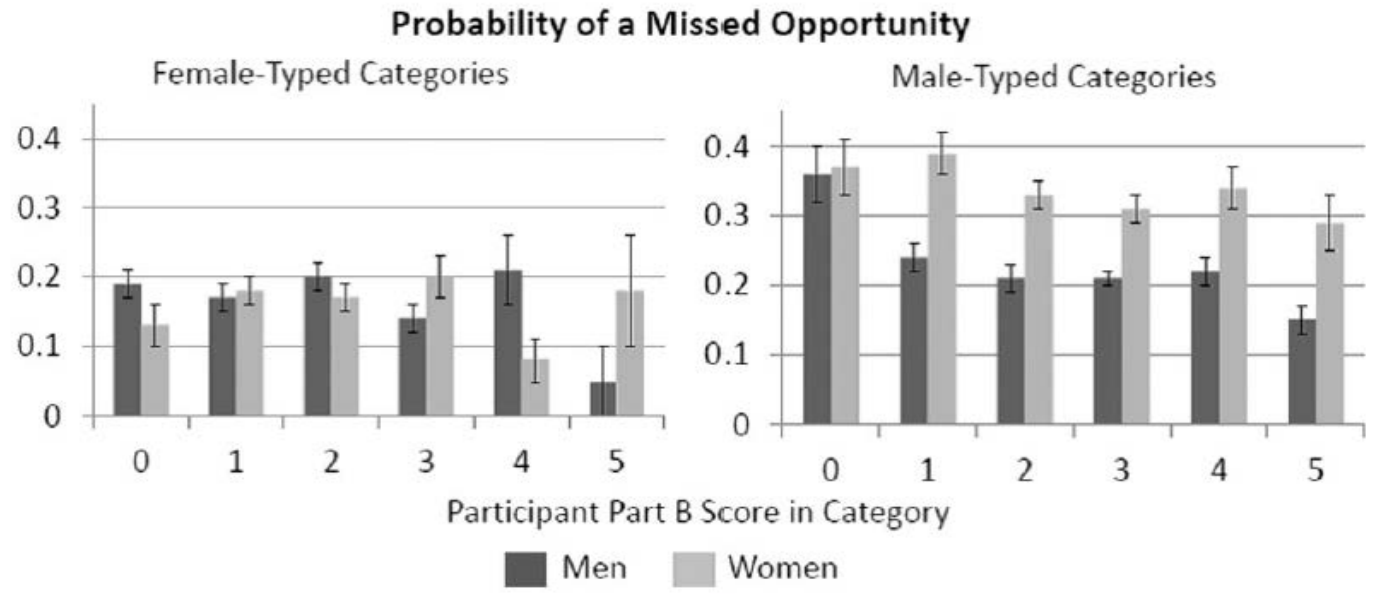

FIGURE II

The Probability of a Missed Opportunity, Split by Gender and Gender-Type of Category

A missed opportunity occurs when an individual answers a question correctly in Part C but submits a place in line strictly greater than her partner.

Self-stereotyping and the contribution of ideas

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    - Conditional on ability (wo)men are less likely to contribute ideas to questions that are (fe)male stereotyped, and this tendency is particularly strong for women.
  - These contribution patterns are partly explained by confidence, which varies significantly (and a lot!) with how gender congruent the question is.
  - As a result, group performance is negatively influenced.
    - Groups miss out on correct answers – would improve if women "leaned in"
    - They fail to recognize the expert when the experts gender does not match the stereotype associated with an area
    - "…talented women are much less likely than talented men to be recognized as most knowledgeable in male-typed domains, simply due to the fact that they contribute their ideas less often."
  - An intervention informing pair members of their relative strengths and weaknesses does not impact the probability to contribute. Policy implications/what may help?

Is there a marriage market penalty to ambition?

- A related idea is explored in Bursztyn et al. (2017). They argue that stereotypes do not need to be internalized to impact behavior if it is costly to deviate from them.
- Men seem to avoid competent women.
  - Correlational evidence has shown that increases in women's – but not men's – earnings is associated with divorce (e.g., Becker, Landes, and Michael 1977; Weiss and Willis 1997).
  - Fisman et al. (2006) show in a speed dating experiment that men value female intelligence and ambition as long as it does not exceed their own. (See also, e.g., Greitemeyer 2007, or Hitsch et al. (201) for preferences for partner´s education.)
  - Folke and Rickne (forthcoming) find that divorce rates double for women being promoted to a top job (they also remarry at lower rates), but not for men or women who pursued, but did not get, the promotion.
- If true, this implies that women face a tradeoff between labor market and marriage market outcomes, where traits like ambition and assertiveness may be attractive in one market but penalized in the other.

Acting wife

Bursztyn, Fujiwara and Pallais (2017)

- Bursztyn et al. explore whether women´s behavior is consistent with a marriage market penalty for ambition among elite MBA students.
- Motivate study with initial evidence:
  - A survey to first year MBAs find 73% of single women reported having avoided actions beneficial to their career because they were worried about looking too ambitious (N=272).
  - Single women attend fewer classes, a part of the grade disclosed to future employers, but otherwise perform equally well (administrative data for cohorts 2010-2016).
- Primary experiment: Questionnaire about job preferences to support summer internship placements (important for future jobs) at first day of MBA program. N=355 (112 women, 60 single).
  - Two treatments varying whether survey instructions stated that ”your” answers, or ”anonymized” answers, would be discussed in a career class.
- Supplementary experiment: 3 months later, exploring whether exposure to men (esp. single men) matter for how single women indicate job interest (high salary vs shorter working hours, a lot of travel vs. promotion prospects). Discussions in small groups comprising either only women, one (single) woman and men, or all men). N=272

Acting wife

Bursztyn, Fujiwara and Pallais (2017)

- Initial evidence: Reports of avoided career related behaviors

TABLE 2—AVOIDANCE OF WORKPLACE BEHAVIORS BY GENDER AND RELATIONSHIP STATUS (*Survey Data*)

	Taking initiative in negotiating a wage raise or promotion	Asking for a leadership role in a team or task force	Offering to make a presentation or sales pitch	Speaking up at meetings	Any behavior	Observations
Single women	63.5	40.4	25.0	51.9	73.1	52
Non-single women	39.4	24.2	15.2	33.3	60.6	33
Single men	25.3	23.0	18.4	27.6	43.7	87
Non-single men	30.3	23.6	6.7	29.2	50.6	89
p-values of differences						
Single versus non-single women	0.030	0.129	0.284	0.095	0.234	85
Single women versus others	0.000	0.014	0.031	0.002	0.002	261

Notes: Data are from a survey administered to first-year MBA students in the fall of 2016. Each number in the first four rows of data is the percentage of the group indicated by the row that avoided the action indicated by the column in their previous two years of work, despite the fact that they believed it could help their careers because they were concerned about appearing too ambitious, assertive, or pushy. Non-single refers to respondents in a serious relationship, cohabiting, engaged, or married.

Acting wife

Bursztyn, Fujiwara and Pallais (2017)

- Evidence Experiment 1: Single women, public and private setting.

TABLE 4—EFFECT OF THE PUBLIC TREATMENT ON REPORTED JOB PREFERENCES AND SKILLS
(*Primary Experiment*)

	Kling-Liebman-Katz index	Desired compensation	Days per month of travel	Desired weekly hours of work	Tendency to lead	Professional ambition	Comfort in competitive environments	Writing skills
Panel A. Single women								
Public treatment	−0.56	−18.12	−6.93	−3.89	−0.39	−0.75	0.12	0.13
	(0.13)	(8.17)	(2.35)	(2.11)	(0.19)	(0.18)	(0.21)	(0.23)
Private treatment mean	−0.06	131.05	13.55	52.21	3.87	4.13	3.29	3.84
Observations	59	60	60	59	60	60	60	60
R^2	0.23	0.08	0.13	0.05	0.07	0.23	0.01	0.01

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Notes: Each cell in panels A through D presents the results of regressing the outcome indicated by the column on a dummy for being in the public treatment. Regressions are limited to the sample indicated by the panel. No controls are included. The Kling-Liebman-Katz index is defined in the text. The desired compensation and hours of work variables correspond to the midpoint of the range the respondent chose. Desired compensation is in thousands of dollars. The travel variable is the number of days per month the respondent would be willing to travel; it is also coded as the midpoint of the chosen range. The remaining outcomes are on a 1-to-5 scale. Robust standard errors are in parentheses. Panel E provides for each outcome the *p*-values for the tests that the effect of the public treatment is the same for (i) single and non-single women and (ii) single women and all other students.

Acting wife

Bursztyn, Fujiwara and Pallais (2017)

- Evidence Supplementary Experiment: The impact of male peers

TABLE 5—EFFECT OF GROUP COMPOSITION ON SINGLE WOMEN'S REPORTED JOB PREFERENCES
(*Supplementary Experiment*)

	Kling-Liebman-Katz index	Prefers higher salary over fewer hours	Prefers promotion over less travel	Prefers social impact over interactions with coworkers
Panel A. Peer gender				
Male peers indicator	−0.77	−0.26	−0.42	0.01
	(0.23)	(0.14)	(0.16)	(0.15)
Mean for single women in female groups	0.00	0.68	0.79	0.42
Observations	40	40	40	40
R^2	0.29	0.14	0.26	0.09
Panel B. Marital status of male peers				
Share of male peers who are unmarried	−1.20	−1.23	0.08	0.44
	(0.34)	(0.19)	(0.27)	(0.33)
Mean for single women in male groups	−0.58	0.43	0.52	0.38
Observations	21	21	21	21
R^2	0.36	0.61	0.19	0.22

Notes: Panel A shows the results of regressing either the King-Liebman-Katz index or an indicator for choosing a given job on a dummy for being in a group with male peers, controlling for section fixed effects. Panel B shows the results of regressing the same dependent variables on the share of male peers who are unmarried. Regressions are limited to single women in panel A and to single women in groups with male peers in panel B. The choices presented and the Kling-Liebman-Katz index are described in the text. Standard errors clustered at the group level are in parentheses.

Acting wife

Bursztyn, Fujiwara and Pallais (2017)

- Discussion: what do you think about this study?
  - Very subtle experimental manipulation. (Did they all read it? Did they really think their individual answers would be discussed in class?)
  - Few participants, and a difference within a subgroup…
  - Pre-analysis plan with many degrees of freedom, e.g., " greater assurance of privacy from classmates regarding the answers is proposed to reduce how women, in particular those more engaged in the dating market, will adapt their answers to conform to gender norms" E.g., what is more engaged in the dating market? Married? In a serious relationship, in a relationship, interested in a relationship?
  - Group allocation in second experiment is not subtle.
  - If assertiveness impacts who is in a relationship we may under-, or over-, estimate the effect…
  - But, very interesting finding, important educational and career choices are made only once, and when the focus on finding a partner is high.
  - Supplementary experiment exploring within group variation mitigates issues with unobservables.
  - Thinking through mechanisms carefully (writing skills rule out modesty), MTurk validations, survey evidence, and so on.
  - And, a study anyone can do…

Does social image concern impact female competitiveness?

Buser, Ranehill, van Veldhuizen (2017 WP)

- Or, the less well implemented version of ”Acting wife”
- Think about why Bursztyn et al. a better paper…

Does social image concern impact female competitiveness?

Buser, Ranehill, van Veldhuizen (2017 WP)

- Motivation:
  - We see large differences in competitive choices which are impacted by task gender stereotypes.
  - But, almost all evidence on competitiveness comes from anonymous lab experiments.
  - What if women are even more reluctant to compete in public?
    - If competition is at odds with stereotypes (women = soft and docile) and gender identity, social image concerns may imply that previously estimated gaps are actually underestimating the impact.
    - Arguably, if you want to be promoted you have to somehow indicate your interest…

Does social image concern impact female competitiveness?

Buser, Ranehill, van Veldhuizen (2017 WP)

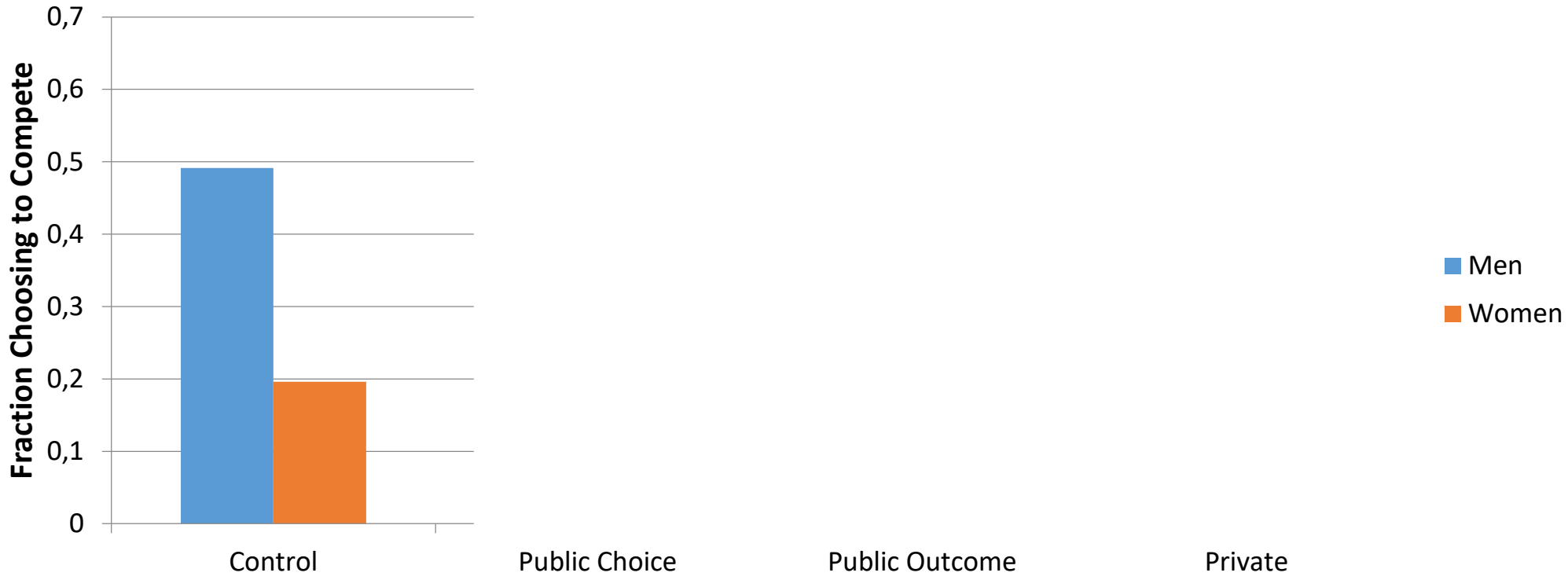
The central part of the design:

1. Participants privately choose tournament or piece rate pay in different treatments varying the concern for social image
2. The treatments (Information about treatment was given *before* participants made their competitive choice.)
   - Control: Name
   - Public Choice: Name + choice
   - Public Outcome: Name + choice + outcome
   - Private: No introduction
3. Competition in real effort task (4 minutes)
4. Feedback
5. (Public outcome: Announcement of outcome)

- Participants were collected in 2 waves due to low initial power. Final N = 784, 220 per condition (apart from the private condition where we have fewer observations.)

Does social image concern impact female competitiveness?

Buser, Ranehill, van Veldhuizen (2017 WP)



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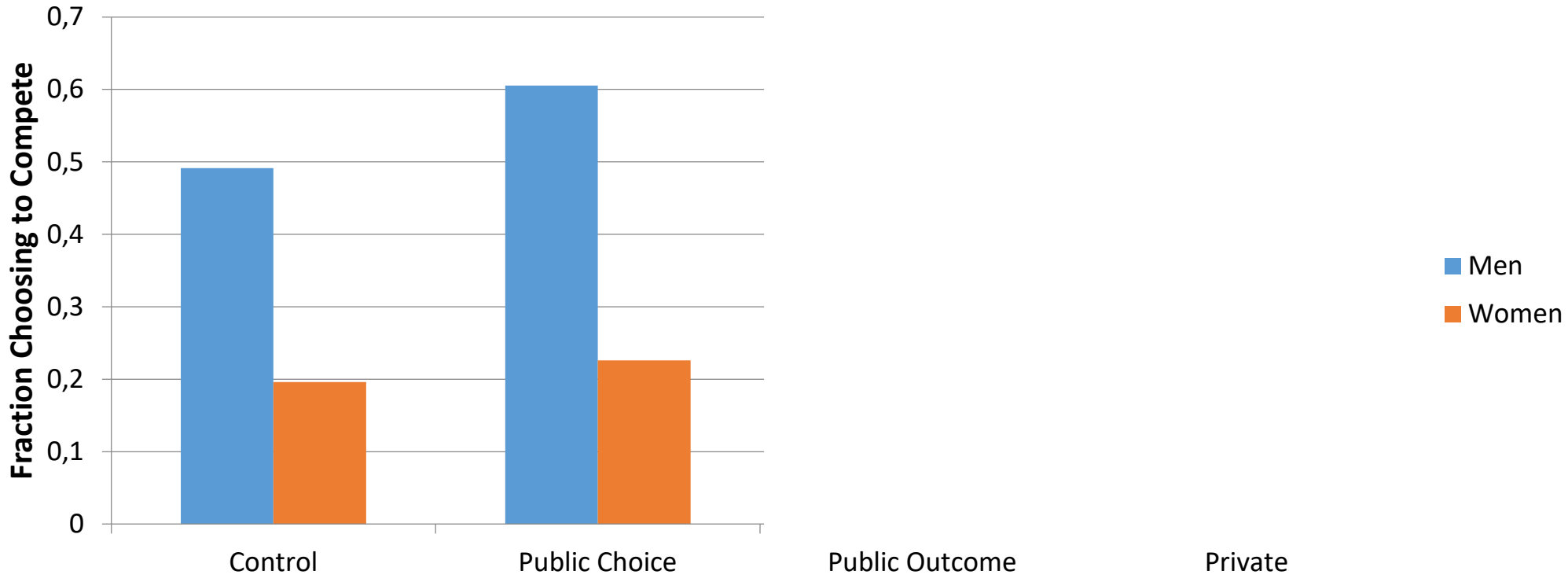

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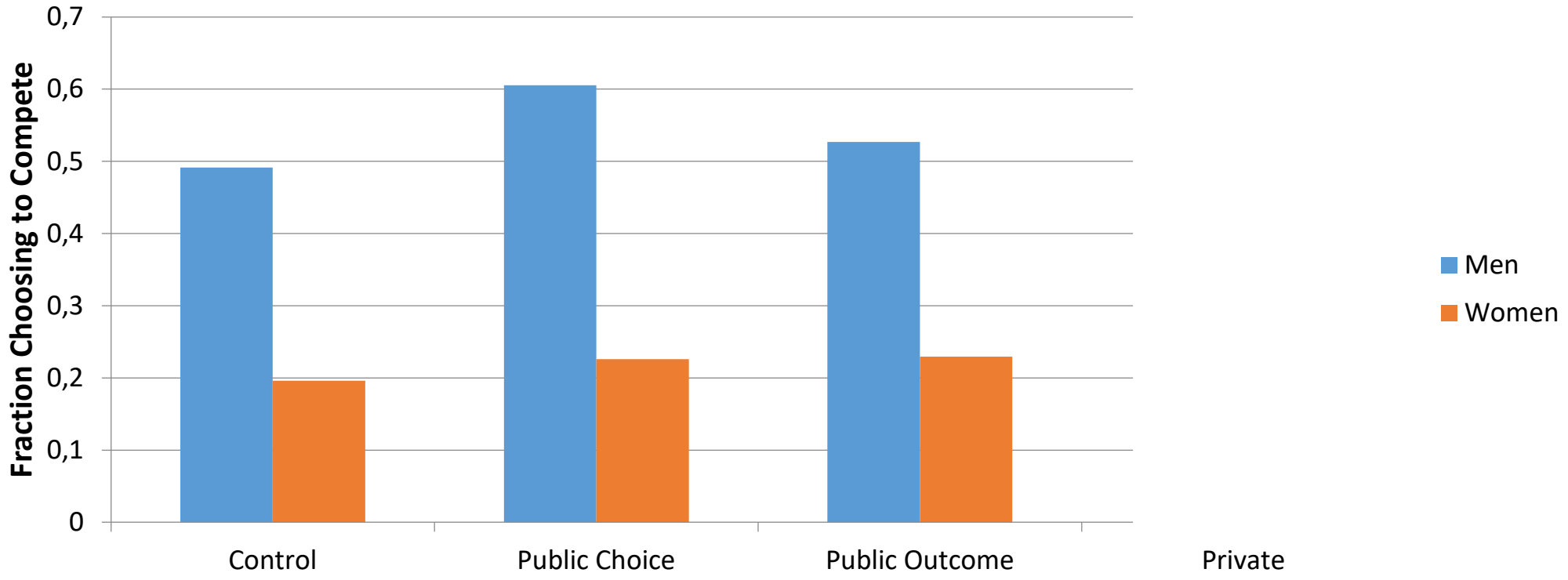
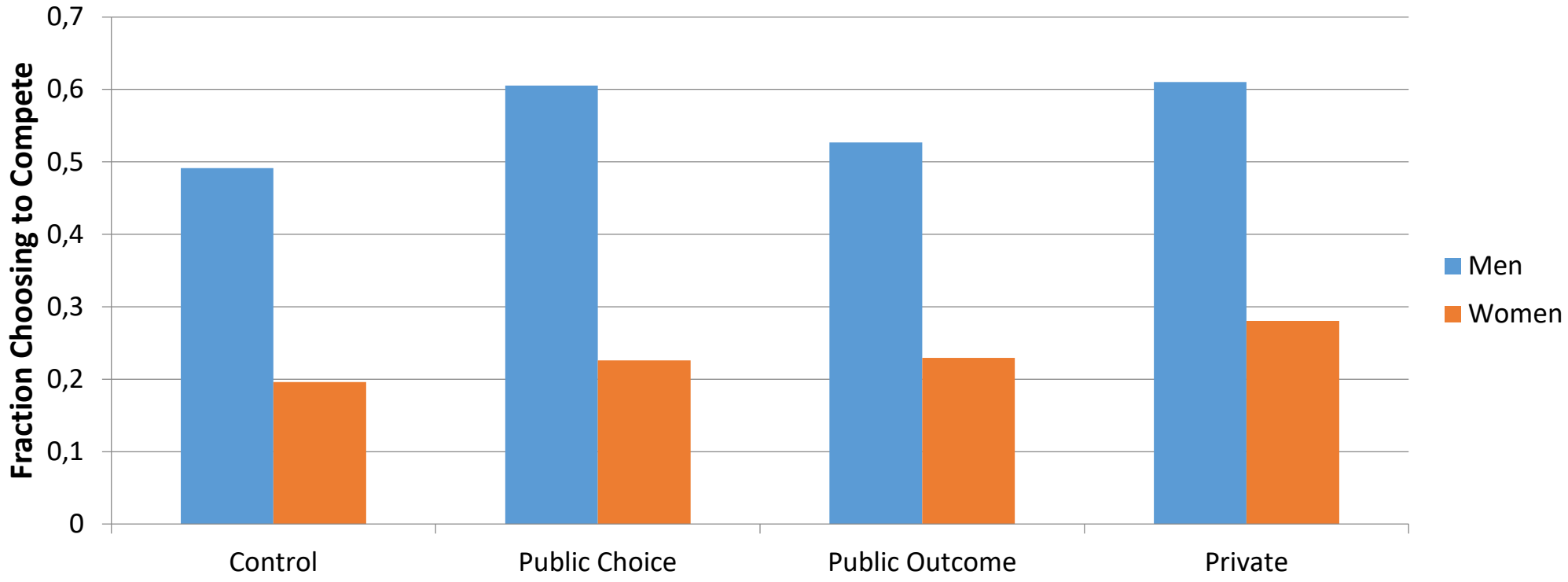


Does social image concern impact female competitiveness?

Buser, Ranehill, van Veldhuizen (2017 WP)



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- Why a null result?
  - Null robust to controlling for risk, confidence and performance.
  - Low power?
    - 30pp: 0.98, 25pp: 0.90, 20pp: 0.71
    - We have good power to detect even smaller effects than those in the literature (average: 28pp)
  - Result is supported by vignettes measuring the hireability and likeability of a competitive male or female candidate finding no gender difference in attitudes.
  - (I like the vignette in our study, but conflicting results can also harm (if referees judge the results more than the study…))

Vignettes

- We used a vignette asking that participants put themselves in the shoes of a bank employee asked to evaluate a candidate for an internship (Material from Linda Babcock). The evaluator got access to a CV and comments from an interview. We varied the description of the candidate only with respect to competitiveness and gender, and measured whether the competitive female candidate was less judged as a less attractive employee.
  - [Competitive Vignettes Only:] He(She) also said that he(she) found competitive environments stimulating, and asked if the bank provides a ranking of the interns hired for the year's summer internship program, after the program is completed.
  - Participants answered both for themselves and regarding their beliefs about others (according to Krupka Weber 2013).

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- Why is Bursztyn et al. a better paper?
  - They ask a similar question, but tie it much better to the bigger picture. It is better presented and better argued.
  - They do a lot of extras generating interest (initial evidence, Mturk surveys etc).
  - They find a better sample (elite MBAs) and setting (Actual job relevance).
  - Better thought trough design.

- It is worth spending the energy to ”make a question bigger” and to think a design through fully. We can all do this with a bit of effort and advice.

Gender identity

- Previous slides illustrate different recent ways that gender stereotypes have been studied in economics. Another very prominent way attitudes to gender has been incorporated is through the concept of identity.
- The concept of identity already used in other fields such as social psychology, and was introduced to economics by Akerlof and Kranton in a series of articles.
- Identity
  - Akerlof and Kranton (2000) define identity as one's sense of self, or one's sense of belonging to one or multiple social categories, and with belonging to a category comes a belief about how people belonging to these categories should behave.
- Gender identity
  - 2 categories associated with different physical attributes and prescribed behaviors: Men and women.
  - These categories thus come both with descriptive norms – how men and women *are* and look – and prescriptive norms – how men and women *should* be and look.

A model of identity

Akerlof and Kranton (2000)

- Basic intuition:
  - Behavioral prescriptions for specific categories are at least partly internalized, and deviating from the behavior prescribed to one's social category cause anxiety and discomfort both for one self and for others. Thus, identity may change the individual's payoff associated with an action.
    - For example, if you are a man, it may be very costly to wear a dress at work, or, if you are a woman, to be a marine.
  - But, actions incongruent with an individuals category may also threaten others, resulting in backlash or ostracism
    - For example, women entering a specific profession may indicate that the job can be done by lower status employees, or that a profession is "women´s work."
  - Thus, identity may change the payoffs associated with specific actions and impact behavior

A model of identity

Akerlof and Kranton (2000)

- This can be captured by including identity in the utility function

$$U_j = U_j(a_j, a_{-j}, I)$$

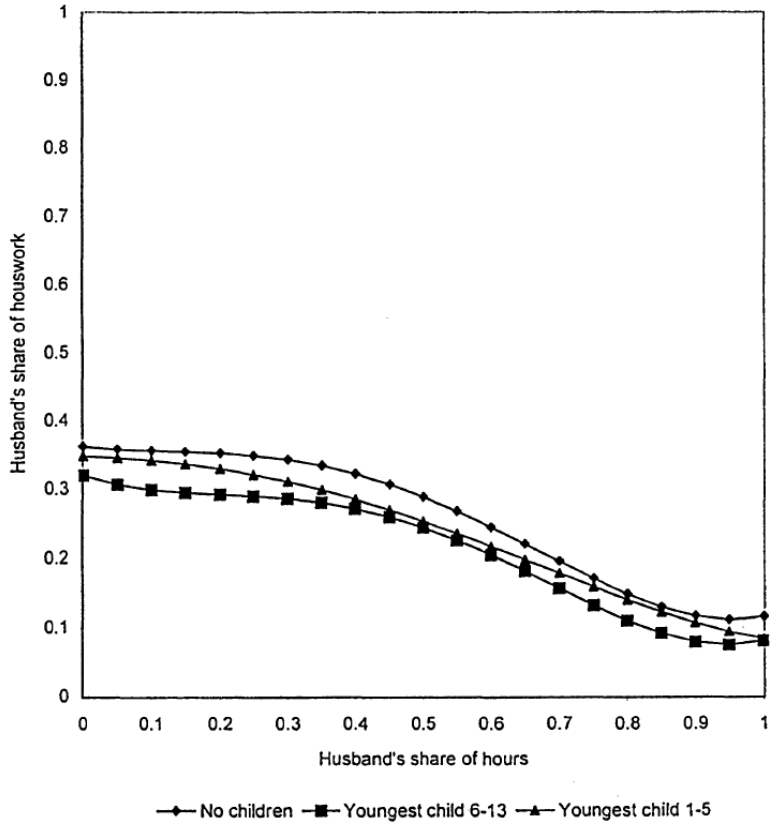
- Where an individual's utility depends on the usual vector of actions, a_j, as well as those of others, a_{-j}, and I is an individual's identity, defined as:

$$I_j = I_j(a_j, a_{-j}, c_j, \varepsilon_j, P)$$

- Where c_j indicates the social category as individual is assigned to, how well an individuals own characteristics, ε_j, match the ideal characteristics of the relevant categories, and P, the actions prescribed for those categories.
- In the simple case, and individual tries to maximize utility taking c_j, ε_j, P, and a_{-j} as given.
- Of course, choices, categories etc. may be more or less consciously chosen, categories, prescriptions etc change over time, and are impacted by individual actions...
- Identity may explain things otherwise hard to understand (self-mutilation, dangerous hobbies, persistent segregation…)

Identity and the economics of the household

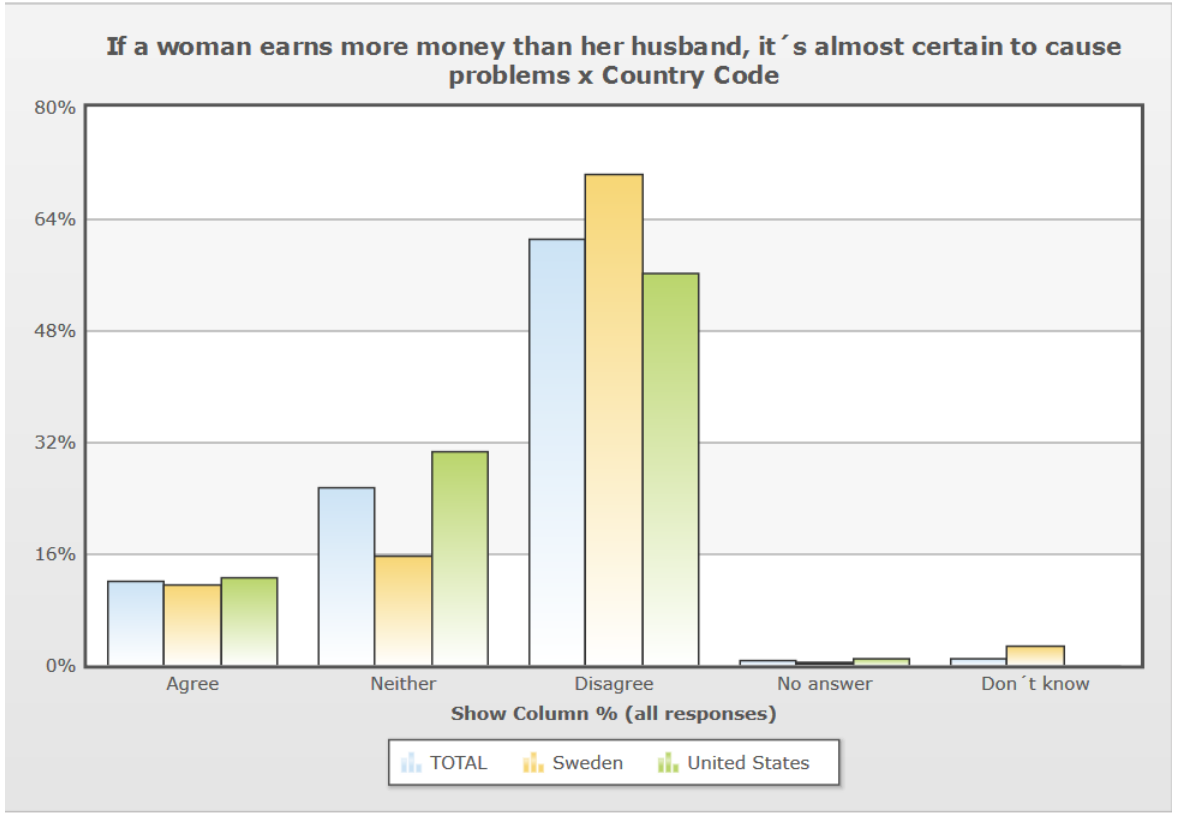
- A paradox? Models of comparative advantage predicts whoever work the most outside of the household will work less at home.
  - But, data shows a gender asymmetry. When women work more outside of the household, they still undertake more work at home.
  - Consistent with identity loss according to prescription ”men should not do women´s work, and should earn more than their wives.” Utility is restored if wife does more housework.
- Identity has been explored in the context of the economics of the household in a prominent study by Bertrand et al. (2015).



Share of household work by married men according to the PSIF as reported in Akerlof and Kranton (2000)

Do traditional gender attitudes still impact important economic decisions?

- Do gender norms prescribe that a man should earn more than his wife?
  - 38% of the U.S. respondents to the 1995 World Value Survey agree with the claim "If a woman earns more money than her husband, it's almost certain to cause problems."
  - "When wives earn more than their husbands, neither partner likes to admit it," (The New York Times, July 17th, 2018).
    - Comparing census answers to tax records, men in opposite sex marriages who earn less than their wife over-report their earnings with 2.9%, women underreport by 1.5%.
  - Example: Swiss tax forms presenting the form for the "first earner" and the "wife."



Selected sample: Sweden 2011,United States 2011 (3,438)

Gender and relative income within households

Bertrand, Kamenica and Pan (2015)

- 1st observation: There is a sharp drop in the distribution at the point where the wife starts to earn more (an estimated drop by 12%).
  - Holds for couples with and without kids, and decreases a bit over time.
- It is present at marriage, and is stronger among less educated couples (who also express the male breadwinner norm more often).
- 20 bins…

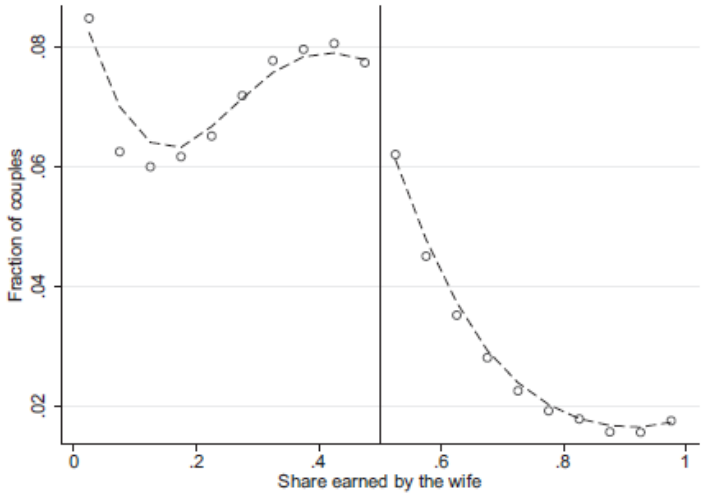


FIGURE I

Distribution of Relative Income (SIPP Administrative Data)

The data are from the 1990 to 2004 SIPP/SSA/IRS gold standard files. The sample includes married couples where both the husband and wife earn positive income and are between 18 and 65 years of age. For each couple, we use the observation from the first year that the couple is in the panel. Each dot is the fraction of couples in a 0.05 relative income bin. The vertical line indicates the relative income share = 0.5. The dashed line is the lowess smoother applied to the distribution allowing for a break at 0.5.

Gender and relative income within households

Bertrand, Kamenica and Pan (2015)

- 2nd observation: when the probability that a randomly chosen woman earns more than a randomly chosen man in a ”marriage market” goes up, marriage rates go down
  - The authors define a marriage market based on education, race, age and state of residence and calculate the probability a woman earns more than a man.
  - Attempt at generating exogenous change in the relative wage of men by using industry-wide wage changes at the national level (presumably uncorrelated with the characteristics of workers in a given marriage market) to instrument for gender-specific variation in local wages (given local industry structure).
  - The relationship between relative wages and marriage rates is driven by low income couples.

Gender and relative income within households

Bertrand, Kamenica and Pan (2015)

- Couples appear less likely to form when the woman earns more.
- What happens in couples where she does?
  - Given the wife´s characteristics, the authors create a variable that captures the likelihood the wife would earn more than her husband if her income was a random draw from the working women in her demographic group.
- 3rd observation: The likelihood a wife works is negatively correlated with the probability her income would exceed that of her husband.
  - The estimated effect is a 1.4pp decrease for a 10pp increase in the probability of earning the most.
  - (Unobservables are of course important here. The authors propose different ways to deal with this and find little impact on their estimate.)

Gender and relative income within households

Bertrand, Kamenica and Pan (2015)

- A less costly measure to avoid challenging the breadwinner norm is to simply reduce earnings.
- 4th observation: The more likely the wife is to earn more than her husband (based on estimates what her demographic profile predicts) the larger is the gap between her actual and potential income.
  - A 10% increase in the probability implies an increase in the gap of 1%.
  - (Same concerns about unobservables apply.)

Gender and relative income within households

Bertrand, Kamenica and Pan (2015)

- 5th observation: Having the wife earn more also appears challenging for marriages, reducing marital satisfaction.
- 6th observation: The couple are also more likely to divorce (an estimated 6 percentage point increase, or 50%), although this effect is not consistently significant.
- 7th observation: Wives that earn more than their husbands compensate and do *more* housework.
- These observations hold in a panel data set.

The case of Sweden

Hederos and Stenberg (2015)

- But, Hederos and Stenberg explores the case of household relative wages in Sweden and make an interesting point…
- "Social norms often only change slowly and in the above mentioned 1995 World Value Survey 33 percent of the Swedish respondents (vs. 38 percent in the US) agreed with the claim: "If a woman earns more money than her husband, it's almost certain to cause problems." Moreover, the Swedish labor market is still markedly divided by gender. For instance, there is a strong glass ceiling effect (Albrecht et al. 2003), occupational segregation is about the same as in other EU countries or the US (Halldén 2014), women take out 75 percent of the paid parental leave (Duvander and Viklund 2014) and are three times more likely to work part time (Boye 2014)."
- Hederos and Stenberg find the discontinuity in Swedish data to be the result not of a drop at .5, but a spike, and argue that understanding why there is a spike can help us decide whether this is driven by the breadwinner norm.

The case of Sweden

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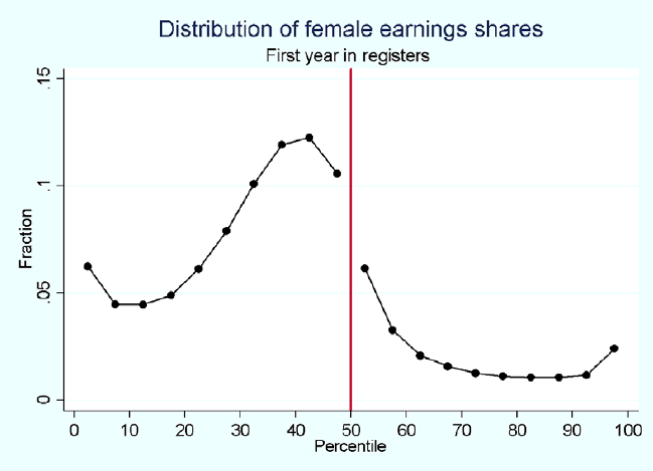

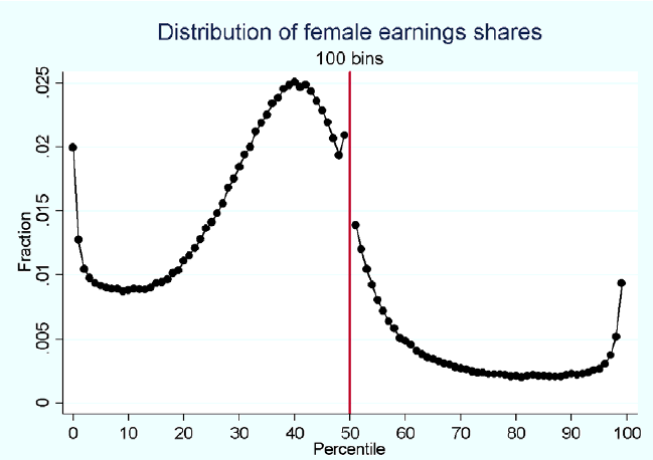

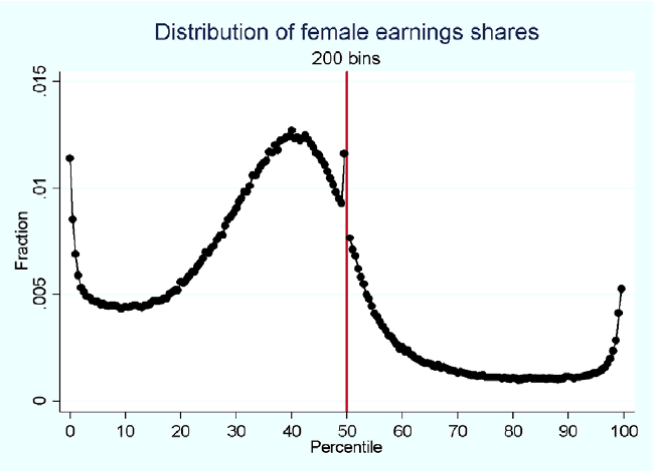

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- Hederos and Stenberg find the discontinuity in Swedish data to be the result not of a drop at .5, but a spike, and argue that understanding why there is a spike can help us decide whether this is driven by the breadwinner norm.
  - 1.8 million observations of individual couples allows to zoom in on couples that earn the same salary.
  - These couples to a very large degree comprise couples that are self-employed. In these couples, wives are generally undereducated, so it does not appear that they are held back by a breadwinner norm.

Gender roles and income – The impact of motherhood

(Kleven et al. forthcoming AEJ Applied)

- Kleven et al. explore the impact of children on gender inequality in labor market outcomes using Danish register data.
  - They find that women and men evolve in parallel until the birth of their first child, diverge sharply immediately after child birth, and do not converge again.
  - The long-run child penalty in earnings equals about 20% over the period 1980-2013 (and this is only the effect post-child. If women anticipate such an effect and invest less in human capital, for example, this is a lower bound).
  - The effect of children on women's careers has not fallen over time, and is now estimated to explain almost all of the resulting gender wage gap.
  - The impact partly goes through an impact on promotion rates, and job switching to more family friendly firms.
  - But why still so important? Transmitted across generations (on mothers side)…
  - And, interestingly, this dynamic appears very different among same sex couples. Eckhoff Andresen & Nix (2019) find that the partner who gives birth in female couples experience a somewhat larger child penality just after birth, but catch up. Neither partner in male couples experience a child penalty.

Where do gender identity and stereotypes come from?

- Really interesting area of work with little research!
- Brenoe (2019 WP) explores how the gender of a second born sibling impact first born women's gender conformity in Danish data.
  (Parents do not know the gender of a second born sibling when deciding to have another child, and by not including the whole sibship she avoids the endogeneity associated with this.)
- She finds that women with a second born brother adopt a more gender conform role in terms of occupational choice (education, work in professions that are more female dominated) and partner.
- Women with a second born brother also experience a larger reduction in earnings and reduce their labor supply more associated with giving birth, and Brenoe finds an indication that effects spill over to the next generation.
- The mechanism proposed is more traditional parenting in families with mixed children (Mothers spend more time with daughters and vice versa).

Do we as researchers reinforce or perpetuate stereotypes?

- We consciously look for differences.
- Start to consciously look at studies published well and less well. (You will learn lots of other things as well.) The difference is often the motivation and the story. Many people appreciate this, and consider it part of our profession and our skill.
- I think we are more and more in the business of selling stories that are coherent, intuitive, and persuasive and this helps us publish our papers. There are pros and cons to this.
- I think as researchers we should prioritize economically relevant questions, and well executed studies. A too large focus on the results generate publication bias, and a tendency to produce consistent stories.
- Increasingly complex papers and less and less time lead to inference based on simplified abstracts.
- I believe these patterns may be especially true for gender research.

Stereotypes of gender and leadership

- Next class will be about gender and leadership, and it is an area where gender stereotypes are strongly expressed.
- Most traits we associate with and consider necessary for leadership such as being agentic, forceful, competitive, authoritarian are associated with masculinity and at odds with norms about femininity as something warm and communal (Koenig et al. 2011).
- This creates role incongruity (a sort of cultural mismatch, or lack of fit) between demands asked of leaders, and demands asked of women. Eagly and Karau (2002) argues that this mismatch underlies biased evaluations of women as leaders.
- This gives rise to two forms of prejudice regarding female leaders.
  - Descriptive beliefs assign less leadership ability to women to start with (Women are less ”natural” leaders.).
  - Prescriptive beliefs generate less favorable evaluations when women display agentic behavior (women with leadership aspirations seem in appropriate, presumptuous, egoistic, cold).
- But, while stereotypes about masculinity and femininity are fairly stable, stereotypes about good leadership appears to develop faster, and be less masculine today.