Follow My Lead: Assertive Cheap Talk and the Gender Gap

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Cheap Talk and Gender

- Success in the labor market often depends on others' willingness to follow your guidance
- Growing body of literature suggesting gender gap in being heeded
  - (e.g., Hengel, 2019; Mengel et al., 2018; Boring, 2017)
- Assertive cheap talk is a common tool to increase influence
  - (e.g., Cooper and Kagel, 2016; Charness et al., 2018; Rudman and Glick, 2016)

Cheap Talk and Gender

- Unclear whether women should engage in assertive cheap talk
  - Use of stronger assertive language is a tool to get ahead (e.g., Libby, 2016)
  - Assertive and self-promoting behavior seen as masculine, and evidence that violating gender norms may cause negative backlash (Rudman and Phelan, 2010; Williams and Tiedens, 2016)

Questions of Interest

1. Are subjects less likely to follow women's advice due to gender discrimination?
2. Does assertive cheap talk affect willingness to follow advice?
3. Are there differential returns to assertive cheap talk by gender?

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Mechanism of cheap talk:

- Do women have different preferences for using assertive cheap talk?
- Do subjects expect gender discrimination by others in advice-following?
- Can such expectations explain different preferences for assertive language?

Approach

- Subjects randomly matched to an unseen leader who provides advice on a logic game (Cooper and Kagel 2005)
- Cross randomize leader **gender** and **assertiveness in cheap talk** when providing advice

- Implement a laboratory experiment at UC Merced
- Conduct a replication of the experiment on Amazon MTurk

Overview of design

Subject is randomly matched to a team leader, whose role is to provide advice

	Cheap Talk Type		
	Least assertive	**Moderately assertive**	**Most assertive**
Male team leader	Male team leader using the least assertive cheap talk (i.e., self-deprecating)	Male team leader using moderately assertive cheap talk (i.e., neutral)	Male team leader using the most assertive cheap talk (i.e., self-promoting)
Female team leader	Female team leader using the least assertive cheap talk (i.e., self-deprecating)	Female team leader using moderately assertive cheap talk (i.e., neutral)	Female team leader using the most assertive cheap talk (i.e., self-promoting)

Individual Game (i.e., Signaling Game)

- Goal: explore responses to advice in a problem with a clear correct answer that is difficult to guess
- "Individual Game": Signaling Game for 10 rounds (adapted from Cooper and Kagel, 2005)
  - Subject chooses a number 1 through 4
  - Most initially select 3, but expected payoff is higher when selecting 4

▸ Game Structure

Interaction with Team leaders

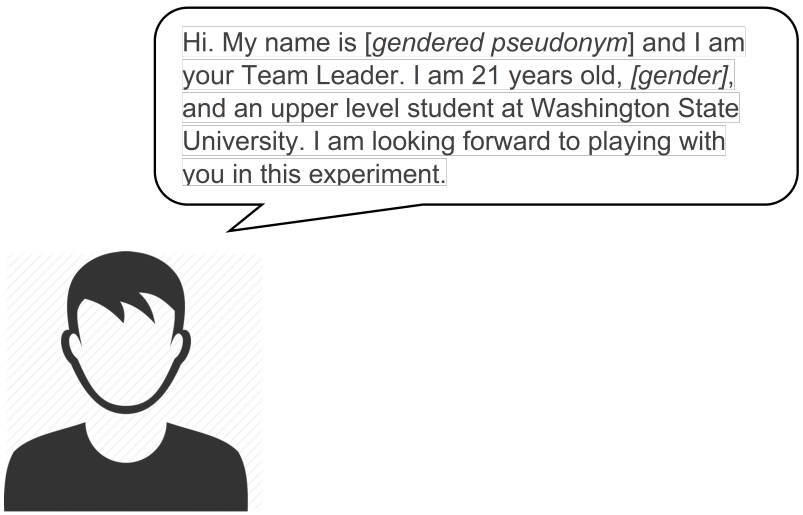
- Each subject is introduced to their team leader via computer interface
- Subject plays ten rounds of the game:
  - Observes what their leader played and points earned
  - Potentially receives message from team leader

Team leaders

- Team leaders were students from Washington State University
- Team leaders consented to sending **prescripted** messages to subjects and were given a bonus increasing in subjects' performance
- We selected 1 male and 1 female leader with identical selection and histories in game play and messages sent

Team leader: Gender Treatment

- Inform subjects of the team leader's gender
- Use a gendered pseudonym and gendered grammar
- Use a gendered image when providing advice
- 93% correctly recalled team leader gender



Team leader: assertive cheap talk treatment

- All substantive aspects of the advice are identical across treatments
- Three sets of messages that differ in assertiveness
- Most assertive cheap talk: selected from excerpts of cover letters
- Least assertive cheap talk: career advice internet sites that advise against weak phrases
- Subjects significantly more likely to report "assertive" messages as being assertive

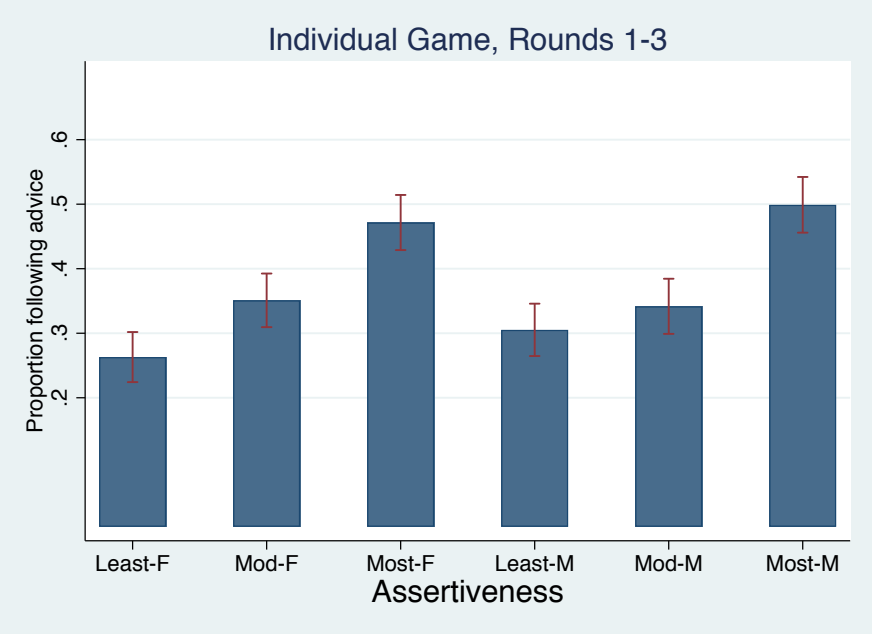
	Cheap Talk Type		
	Least Assertive	**Moderately Assertive**	**Most Assertive**
Introduction Message to Subjects:	Hi. My name is _____ and I am your Team Leader. I am 21 years old, *[gender]*, and an upper level student at Washington State University. **I am not sure how good a leader I will be**, but I am looking forward to playing with you in this experiment.	Hi. My name is _____ and I am your Team Leader. I am 21 years old, *[gender]*, and an upper level student at Washington State University. I am looking forward to playing with you in this experiment.	Hi. My name is _____ and I am your Team Leader. I am 21 years old, *[gender]*, and an upper level student at Washington State University. **If you listen to my advice, I can assure you that my skills and experiences will help you perform well in this game. I am looking forward to playing with you in this experiment.**
Round 1 Advice:	I played 4. **I am not sure whether it is a good choice.**	I played 4.	I played 4. **I am convinced that it is the best choice.**
Round 2 Advice:	I played 4, **but I'm not an expert at this game.**	I played 4.	I played 4. **Follow my lead and choose 4 too.**
Round 3 Advice:	**I might be missing something in choosing to play 4.**	My decision was to play 4.	**I have figured out how to make good decisions in this experiment. Trust me, 4 is the best play.**
Round 4 Advice:	**You probably have better problem-solving skills than I do, but here is what I am thinking:** When you play 4, Player 2 guesses you are Type B.	When you play 4, Player 2 guesses you are Type B.	**I have extremely strong problem-solving skills and my advice can be an asset to you.** When you play 4, Player 2 guesses you are Type B.
Round 5 Advice:	**I am not sure, but it might help** to make Player 2 think you are Type B. **Am I making sense?**	You need to make Player 2 think you are Type B.	**My strengths include exceptional analytical thinking.** You need to make Player 2 think you are Type B.
Round 6 Advice:	**I don't know, but playing 4 seems like it's working.**	When you play 4, Player 2 is more likely to think that you are Type B.	**I have earned the trust of my peers in the past, and I strongly encourage you to play 4.**
Round 7 Advice:	**Sorry, but I was just thinking that if you play 4, Player 2 might be more likely to play Out, so you might earn more. I'm not sure if that makes sense.**	If you play 4, Player 2 is more likely to play Out, so you earn more.	**I pride myself on my ability to deliver, and I want you to succeed. I figured out that if you play 4, Player 2 is more likely to play Out, so you earn more. That is why I recommend you play 4.**
Round 8 Advice:	**I don't know if this is helpful, but my thought is that maybe** you can make the computer think you are Type B by playing 4.	You can make the computer think you are Type B by playing 4.	**I gravitate naturally to instruction, and I am keen to help you. The smart move is to play 4. See,** you can make the computer think you are Type B by playing 4.

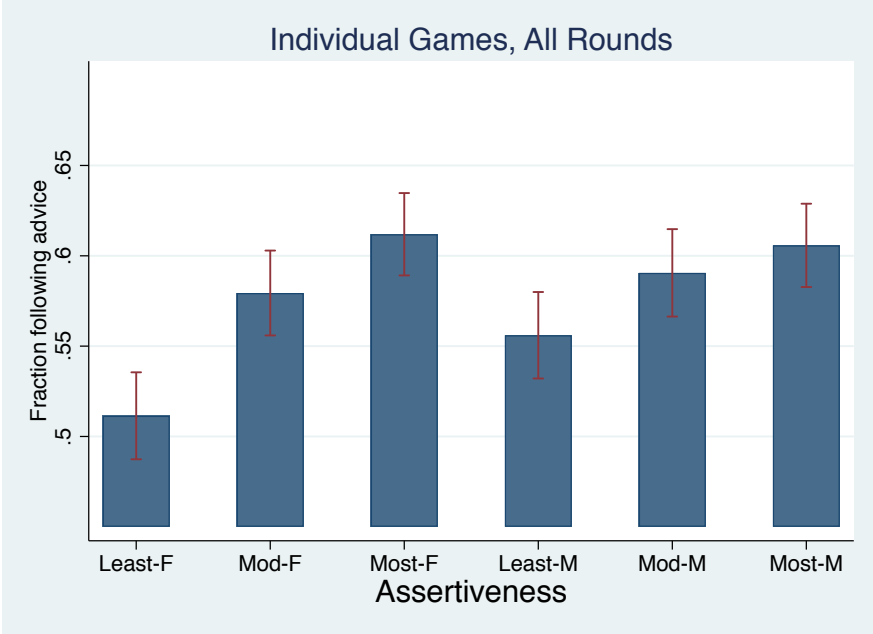
Assertiveness in cheap talk aligns with gender norms

	(1) Masculine	(2) Feminine	(3) Masculine	(4) Feminine
Assertive	0.140***	-0.0977***	0.140***	-0.0980***
	(0.0146)	(0.0149)	(0.0142)	(0.0144)
Fem. Leader			-0.158***	0.164***
			(0.0225)	(0.0219)
Sample FE	X	X	X	X
Observations	1010	1010	1010	1010

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses. Dependent variables reflect the subject's perception of the team leader's advice: Masculine(Feminine) is an indicator for Characterized Messages as Masculine (Feminine). Assertive is a variable ranging from 0 to 2, increasing in the assertiveness of the cheap talk. Sample fixed effects are fixed effects reflecting whether the subject participated in the original experiment at UC Merced or the replication experiment on Amazon MTurk.

Gender Does Not Matter, but Cheap Talk Does





Gender Does Not Matter, but Cheap Talk Does

	Round 1			Round 1 to 3			All Rounds		
	(1) UCM	(2) MTurk	(3) All	(4) UCM	(5) MTurk	(6) All	(7) UCM	(8) MTurk	(9) All
Fem. Leader	-0.0827	0.0103	-0.0320	-0.0671	0.00177	-0.0293	-0.0295	-0.0528	-0.0426
	(0.0567)	(0.0543)	(0.0394)	(0.0417)	(0.0442)	(0.0310)	(0.0340)	(0.0376)	(0.0261)
Assertive	0.0913**	0.0529*	0.0674***	0.110***	0.0867***	0.0953***	0.0245	0.0254	0.0245
	(0.0384)	(0.0300)	(0.0238)	(0.0246)	(0.0251)	(0.0180)	(0.0209)	(0.0209)	(0.0151)
Fem. Leader × Assertive	0.0371	-0.000788	0.0167	0.0173	-0.00207	0.00647	0.0267	0.0257	0.0247
	(0.0502)	(0.0434)	(0.0328)	(0.0341)	(0.0356)	(0.0253)	(0.0284)	(0.0300)	(0.0211)
Round FE	X	X	X	X	X	X	X	X	X
Practice round	X	X	X	X	X	X	X	X	X
Sample FE			X			X			X
Obs (Individual*Round)	435	575	1010	1305	1725	3030	4350	5750	10100
A + F × A	0.128	0.0521	0.0842	0.128	0.0847	0.102	0.0512	0.0510	0.0492
P-val	0.000	0.096	0.000	0.000	0.001	0.000	0.008	0.018	0.001

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses, clustered at the individual level. Assertive is a variable ranging from 0 to 2, increasing in the assertiveness of the cheap talk. Practice Round is an indicator for playing strategically in practice round. Round FE are fixed effects for each of the ten rounds played. Sample fixed effects are fixed effects reflecting whether the subject participated in the original experiment at UC Merced or the replication experiment on Amazon MTurk. UCM refers to the original sample at UC Merced, MTurk refers to the replication sample on Amazon MTurk, and All refers to both samples combined.

Lack of backlash on subjective evaluations

	(1) Exp. Perf.	(2) Retained	(3) Eval.	(4) Self-Power
Fem. Leader	-0.225	-0.00871	0.0269	-0.0381
	(0.478)	(0.0309)	(0.0508)	(0.0674)
Assertive	-0.0340	0.0112	0.0981***	-0.00364
	(0.266)	(0.0157)	(0.0266)	(0.0363)
Fem. Leader × Assertive	0.399	0.00626	0.0235	0.00240
	(0.377)	(0.0227)	(0.0376)	(0.0506)
Sample FE	X	X	X	X
Observations	1001	1010	1009	1009
A + F × A	0.365	0.0174	0.122	-0.00124
P-val	0.172	0.289	0.000	0.972

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses. Assertive is a variable ranging from 0 to 2, increasing in the assertiveness of the cheap talk. Dependent variables reflect the subject's assessment of the team leader. Exp. Perf is subject's belief of the ventile of points earned by the team leader over all ten rounds in the Individual Game (Expected Leader Performance). Retained is an indicator for whether the subject kept the team leader (as opposed to getting a new team leader) for a final incentivized game (Retained Leader). Eval. is the summary index of 16 questions evaluating the team leader, increasing in positive evaluation (Leader Evaluation). Self-Power: Summary index of 8 questions evaluating the subject's own feelings of power and control. Selects is an indicator for whether the subject selected the team leader to play an incentive logic game in which the subject gained earnings if the team leader performed well and lost earnings if the team leader performed poorly (Selects Leader for Risky Puzzle). Missing observations reflect subject preferring not to respond to the questions used to construct the dependent variable. Sample fixed effects are fixed effects reflecting whether the subject participated in the original experiment at UC Merced or the replication experiment on Amazon MTurk.

Expectations of Gender Discrimination: Subject Priors

		Assertiveness		
	(1) Full sample	(2) Most	(3) Mod.	(4) Least
Panel A: Unincentivized Priors, Individual Game				
Pct: Female preferred	7.51	8.33	8.70	5.56
Pct: Male Preferred	36.15	40.28	31.88	36.11
Pct: Equal	56.34	51.39	59.42	58.33
Obs (Individuals)	213	72	69	72
Panel B: Incentivized Priors, Individual Game R1				
Fem. Leader	-0.0865***	-0.0710***	-0.0768***	-0.113***
	(0.00836)	(0.0134)	(0.0133)	(0.0164)
Male Mean	0.692***	0.695***	0.708***	0.673***
	(0.00907)	(0.0154)	(0.0166)	(0.0152)
Obs (Individuals*Prior per Gender)	1141	400	365	376
Estimated Effect	0.00914	-0.0182	0.0781	-0.0216
P value: est. effect = prior	0.00855	0.412	0.0170	0.115

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses. Panel A reports the percent of subjects reporting they expected peers were more likely to follow advice in the *Individual Game* when provided by female team leaders, male team leaders, or both genders equally. Panel B estimates the difference between subject's expectation of the percentage of MTurk subjects following the advice in Round 1 of the *Individual Game* when provided by a male team leader relative to when provided by a female team leader and uses robust standard errors. Panel A is calculated on the subset of subjects in the original sample to whom the question was asked; Panel B is estimated on the replication sample. The observations reflect two priors per subject: beliefs about the expected adherence to male team leaders and to female team leaders.

Expectations of Gender Discrimination: Self-Fulfilling Prophecy?

- In the replication experiment, we conduct a Coordination Game
- Subjects are partnered with another Amazon MTurk worker who has not played the first game
- Similar logic to original Individual Game, **except** subject receives no payout if they select differently from their partner
- No gender gap in willingness to follow the leader: subject's expectations of others' discrimination did not translate into discrimination against female leaders

Language Preferences by Gender

	(1) Assertive Preference	(2) Prefers Most Assertive	(3) Prefers Least Assertive
Female Subject	-0.126***	-0.102***	0.0239
	(0.0452)	(0.0336)	(0.0234)
Constant (Male Mean)	1.330***	0.429***	0.0981***
	(0.0529)	(0.0392)	(0.0263)
Sample FE	X	X	X
Observations	778	778	778

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Robust standard errors in parentheses. Assertive Preference is a variable ranging from 0 to 2, increasing in the assertiveness of the cheap talk. Prefers Most Assertive (Least Assertive) is an indicator for selecting messages from the Most Assertive (Least Assertive) treatment arm if he/she were a team leader in the Individual Game, instead of messages from the More Assertive or Least Assertive (Most Assertive) treatment arm. Female Subject is an indicator for the subject being female and the Male Mean is the mean of male subjects. Sample fixed effects are fixed effects reflecting whether the subject participated in the original experiment at UC Merced or the replication experiment on Amazon MTurk. Observations include a subset of subjects from the original experiment at UC Merced and all subjects in the replication experiment on Amazon MTurk.

Additional Results

- Subjects expect peers will be less likely to follow advice from female team leaders
- But subjects continue to not discriminate against female leaders even when coordinating with each other
- Female subjects are less likely to select using assertive cheap talk, though response to assertiveness does not differ from male subjects

Conclusion

- Find support that assertive cheap talk matters
  - Positive returns to both genders
  - Gender norm violations do not result in negative returns
- Significant expectation that others discriminate, but not as a function of assertive cheap talk
- Female subjects do not prefer assertive cheap talk, resulting in a gender gap

Game Structure

Player 1

Type A				Type B			
A's choice	In	Out		B's choice	In	Our	*Expected Payout (not shown)*
1	168	444		1	276	568	*299*
2	150	426		2	330	606	*395*
3	132	426		3	352	628	*466*
4	-188	-38		4	316	592	*573*

Player 2

Player 2's choice	Type A	Type B
In	500	200
Out	250	250

Back