Female Leadership and Workplace Climate

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What Is This Paper About?

- Understanding how female leaders shape workplace climate in the corporate world.. differently than male leaders

    - Relational dynamics
    - Employee retention and promotions
    - Perceived workplace climate

- Using unique data we collected from over 2000 white-collar professionals from 24 major corporations in Turkey in 2019

    - 6 sectors: defense, energy, chemistry, finance, construction, textile
    - Conditionally random leader-subordinate matches at the team level

- We define **LEADER** broadly: *Team leaders* within departments

Our Contribution and Snapshot of Results

1 Male and female leaders possess equal cognitive capacity but different socio-emotional characteristics

- Chen and Houser, 2019; Alan et al., 2020; Born et al., 2020

2 Female leaders disrupt male homophily, and foster inter-gender professional interactions

- Cullen and Perez-Truglia, 2023; Mengel, 2020; Zeltzer, 2020

3 Under female leadership, females quit their jobs less often, but are not more likely to be promoted

- Kunze and Miller, 2017; Battaglini et al., 2023; Bagues et al., 2017

4 Females working under female leaders are less happy, particularly when their leader is unsupportive

- Artz and Taengnoi, 2016; Chakraborty and Serra, 2022; Abel, 2022

Outcomes: Characterization of Workplace Climate

1 Social Network: *"List at most 3 colleagues (in the firm) that you receive regular professional (personal) help from."*

- Individual-level measures: Links to leaders, links to colleagues
- Department-level measures: Coleman Index of male and female homophily ("the higher-than-expected intra-gender ties")

2 Perceived Workplace Climate

- Workplace satisfaction, meritocracy, collegiality, job satisfaction, behavioral norms, leader professionalism

3 Official Records of Job Separations and Promotions

4 Individual Characteristics

- Economic and Social Preferences
- Cognitive and Sociocognitive Skills

Characteristics of a Corporate Leader

- Who becomes a leader?
    - Older and married professsionals, and those with higher fluid IQ and verbal creativity

- Gender gap in leadership is 4.7%
    - Adding age, tenure, marital status, department size, proportion of females in the department, eliminates the gender gap in leadership

Gender Differences in Leaders and Non-leaders
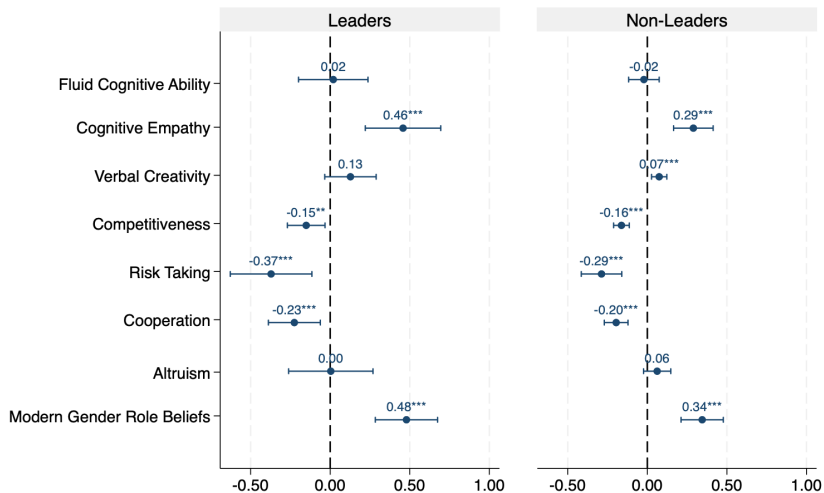
Estimated gender differences (females-males) in outcomes on the Y-axis. All regressions control for firm fixed effects.

Internal Validity

- Key assumption: *Assignment to female leaders is as good as random once we control for variables that are mechanically related to working under female leadership.*

- Centralized and transparent hiring and worker allocation practices

- Empirical validation exercises:
  - "Female-type jobs": control for firm fixed effects, share of female employees in the department, and nature of the job performed (ISCO-08)
  - Simulation-based tests: whether within-firm variation in exposure to female leaders observed in our data is consistent with a random allocation process ▸Show
  - Balance of demographics, cognitive skills, and economic and social preferences across male and female-led teams ▸Show

Empirical Model

Individual-level empirical specification:

$$y_{ijf} = \alpha_0 + \alpha_1 \text{FemLead}_{ijf} + \text{IC}'_{ijf}\beta + \text{FemShare}'_{jf}\gamma + \delta_f + \varepsilon_{ijf}, \quad (1)$$

- y_{ijf}: outcome of individual i in department j in firm f
- $FemLead_{ijf}$: binary indicator of working under female leader
- IC_{ijf}: fluid cognitive ability, verbal creativity, cooperation (individual level covariates selected by post-double-selection LASSO)
- $FemShare_{ijf}$: department female share

Department-level empirical specification:

$$y_{jf} = \alpha_0 + \alpha_1 \text{ShareFemLead}_{jf} + \text{FemShare}'_{jf}\gamma + \delta_f + \varepsilon_{ijf}, \quad (2)$$

- $ShareFemLead_{jf}$: share of female leaders in the department

Leader's Gender and Support from Leader

	Professional Support			Personal Support		
	Pooled	Females	Males	Pooled	Females	Males
Under Female Leader	0.028	0.110***	-0.045	0.075**	0.152***	-0.002
	(0.041)	(0.039)	(0.056)	(0.032)	(0.031)	(0.035)
Wild Bootstrap P-value	0.489	0.018	0.439	0.036	0.000	0.956
Mean (Under Male Leader)	0.594	0.547	0.621	0.431	0.333	0.488
N	1604	658	946	1604	658	946
P-Value (Male=Female)	0.007			0.000		

Dependent variable is a binary indicator of nominating leader in the network. Females columns use the female subsample. Male columns use the male sub-sample.

Leader's Gender and Support from Female Colleagues

	Professional Support			Personal Support		
	Pooled	Females	Males	Pooled	Females	Males
Under Female Leader	0.252***	0.277***	0.235***	0.227***	0.213***	0.244***
	(0.024)	(0.031)	(0.037)	(0.020)	(0.031)	(0.039)
Wild Bootstrap P-value	0.000	0.000	0.000	0.000	0.000	0.000
Mean (Under Male Leader)	0.237	0.381	0.153	0.309	0.561	0.157
N	1577	648	929	1499	627	872
P-Value (Male=Female)		0.361			0.585	

Dependent variable is the proportion of females nominated in the network. Females columns use the female subsample. Male columns use the male subsample.

Female Leaders and Homophily in the Department

Homophily: *"the higher-than-expected intra-gender ties in a department"*

	Professional Support			Personal Support		
	Male Homophily	Female Homophily	Density	Male Homophily	Female Homophily	Density
Proportion of Female Leaders	-0.362**	0.463**	0.004	-0.554***	0.305	0.007
	(0.144)	(0.182)	(0.045)	(0.142)	(0.183)	(0.035)
Wild Bootstrap P-value	0.008	0.026	0.943	0.000	0.112	0.849
Outcome Mean	0.214	-0.017	0.094	0.244	0.196	0.076
N	195	166	212	192	168	210

Dependent variables are Coleman's homophily index and department network density.

Leader's Gender, Employee Separation, and Promotions

	Layoffs			Quits			Promotions		
	Pooled	Females	Males	Pooled	Females	Males	Pooled	Females	Males
Under Female Leader	0.007	-0.008	0.030	-0.017	-0.067**	0.011	0.011	0.026	0.021
	(0.009)	(0.006)	(0.023)	(0.016)	(0.026)	(0.024)	(0.023)	(0.034)	(0.027)
Wild Bootstrap P-value	0.527	0.410	0.287	0.215	0.043	0.614	0.641	0.392	0.460
Mean (Under Male Leader)	0.010	0.007	0.011	0.078	0.119	0.057	0.086	0.074	0.092
N	486	183	303	486	183	303	486	183	303
P-Value (Male=Female)		0.166			0.045			0.893	

Dependent variable is a binary indicator of layoff, quit, or promotion.

- Administrative data covering 1 July 2021-30 November 2021 (1.5 years after measuring our outcome variables)
- Subsample of 10 firms
    - 4 firms dropped out
    - Only *Control* firms from the RCT (see *Alan et al., 2023*)

Leader's Gender and Reported Workplace Climate

Panel I: Pooled Sample

	W-Satisfaction	Meritocracy	Collegiality	Job Satisfaction	Behavioral Norms	Leader Prof.
Under Female Leader	-0.132**	-0.110*	0.022	0.030	-0.047	-0.054
	(0.056)	(0.055)	(0.084)	(0.070)	(0.088)	(0.082)
Wild Bootstrap P-value	0.026	0.061	0.810	0.688	0.620	0.522
Mean (Under Male Leader)	0.010	-0.026	-0.015	-0.022	0.010	0.023
N	1424	1384	1518	1491	1467	1493

Panel II: Female Sample

	W-Satisfaction	Meritocracy	Collegiality	Job Satisfaction	Behavioral Norms	Leader Prof.
Under Female Leader	-0.199*	-0.193**	0.047	-0.056	-0.009	0.030
	(0.099)	(0.077)	(0.115)	(0.101)	(0.137)	(0.107)
Wild Bootstrap P-value	0.068	0.018	0.695	0.600	0.953	0.765
Mean (Under Male Leader)	-0.135	-0.052	-0.090	-0.195	-0.039	-0.038
N	604	589	637	633	621	624

Panel III: Male Sample

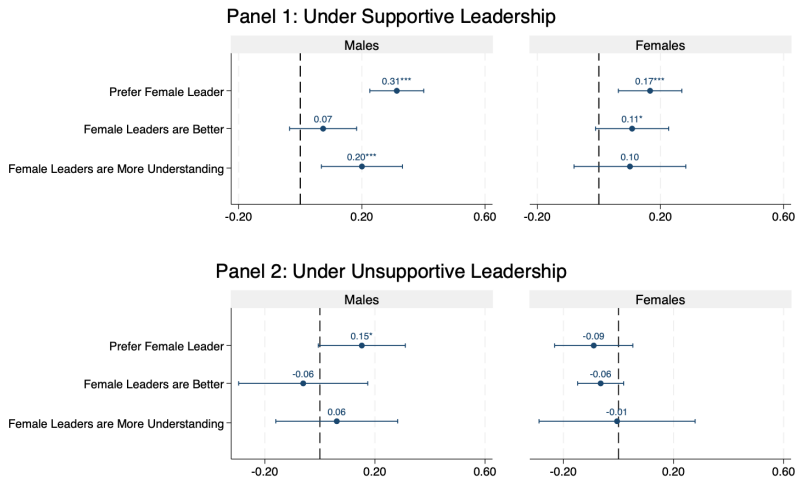|	W-Satisfaction	Meritocracy	Collegiality	Job Satisfaction	Behavioral Norms	Leader Prof.
Under Female Leader	-0.076	-0.019	0.021	0.083	-0.058	-0.143
	(0.070)	(0.074)	(0.110)	(0.081)	(0.092)	(0.115)
Wild Bootstrap P-value	0.305	0.788	0.860	0.290	0.544	0.265
Mean (Under Male Leader)	0.101	-0.009	0.031	0.087	0.041	0.061
N	820	795	881	858	846	869
P-Value (Male=Female)	0.297	0.034	0.829	0.205	0.701	0.153

Dependent variable is a standardized workplace climate item as indicated. 'W-Satisfaction' stands for workplace satisfaction, whereas 'Leader Prof.' stands for leader professionalism.

Leader Gender Preferences
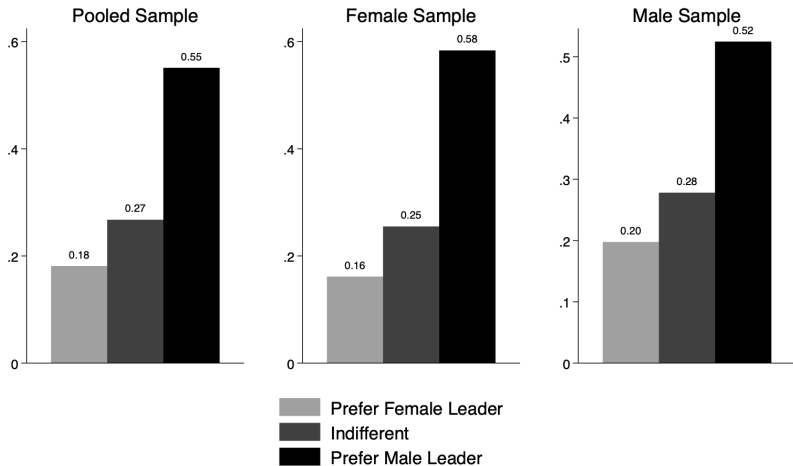
The figure plots the shares of subordinates who prefer having a female leader, a male leader, and remain indifferent between the two.
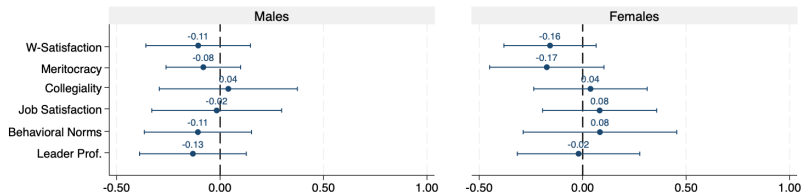
# Leader Gender Preferences Under (Professionally) Supportive and Unsupportive Leadership

Panel 1: Under Supportive Leadership

Panel 2: Under Unsupportive Leadership

The figure plots effects of having a female leader on leader gender preferences separately for female and male employees under supportive and unsupportive leaders.

Climate Perceptions Under (Professionally) Supportive and Unsupportive Leadership
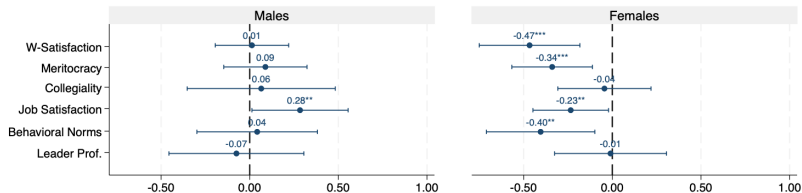
The figure plots effects of having a female leader on workplace climate separately for female and male employees under supportive and unsupportive leaders.

Summary

Female leaders are *pivotal* in transforming the relational culture in the workplace

1. Do not possess *"male-like"* characteristics
   - Equally smart, less competitive, more risk-averse, higher cognitive empathy, more progressive gender role beliefs

2. Create a more inclusive workplace
   1. Male homophily is reduced
   2. Both males and females establish more links with female colleagues
   3. Females receive more support from their leaders and quit less often

3. The Puzzle: Majority prefer to work under male leadership!
   - Females working under female leaders have lower workplace satisfaction and worse meritocratic perceptions

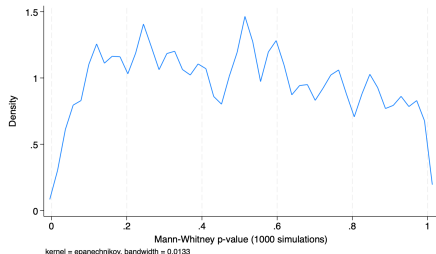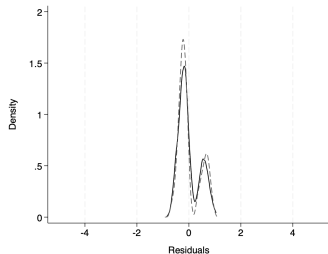4. The Real Game-changer: Having a *Supportive Leader*

THANK YOU!

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Appendix

Left figure displays the kernel density plots of residuals from regressions of exposure to female leaders conditional on the share of females within department, nature of the job performed, and firm fixed effects, with actual and simulated data. Right figure displays the kernel density plots of p-values corresponding to the Mann-Whitney test statistics obtained from comparing the actual and simulated distributions of residuals.

Balance Tests with Individual Characteristics ▸ Back

	N	Under Male Leader Mean	Under Female Leader Mean	P-value of Difference
Female	1892	0.372	0.550	0.988
Age	1892	34.784	33.612	0.197
Married	1892	0.631	0.556	0.720
Tenure	1892	6.962	5.752	0.422
Fluid Cognitive Ability	1721	-0.107	-0.136	0.403
Cognitive Empathy	1726	-0.110	0.030	0.169
Verbal Creativity	1726	-0.135	-0.172	0.231
Competitiveness	1720	0.476	0.485	0.012**
Risk Tolerance	1724	0.002	-0.119	0.158
Cooperation	1724	-0.046	-0.141	0.534
Altruism	1724	-0.071	-0.053	0.799
Modern Gender Role Beliefs	1494	-0.012	0.066	0.819

All regressions control for the share of females within department, nature of the job performed, and firm fixed effects.