

# Reshaping Adolescents' Gender Attitudes: Evidence from a School-Based Experiment in India (2018)

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# Social Norms

## Literature Review

Centuries-old norms might be amenable to change

- ▶ [Becker and Mulligan \(1997, \*QJE\*\)](#) How individual preferences are shaped
- ▶ [Beaman et al. \(2009, \*QJE\*\)](#) Reserved seats for female politicians reduce gender-biased attitudes in India
- ▶ [Jensen and Oster \(2009, \*QJE\*\)](#) Television programming can change fertility preferences

# Endogenous Preferences

## Literature Review

### Making attitudes more gender-progressive

- ▶ Fernandez et al. (2004, *QJE*) Mothers' labor force participation
- ▶ Washington (2008, *AER*) Having daughters and sisters
- ▶ Dahl et al. (2017) Serving with women in the military

# Persuasion & Communication

## Literature Review

Persuasion, which is communication intended to change preferences or beliefs

- ▶ [Cantoni et al. \(2017, \*JPE\*\)](#) Chinese students taught with textbooks designed to convey pro-Communist messages exhibit more pro-government views and skepticism of free markets as adults
- ▶ [Banerjee et al.\(2018\)](#) Concealing one's HIV status from sexual partners
- ▶ [Paluck\(2009\) & Bursztyn et al.\(2018\)](#) Altering perceptions about social norms about discrimination and female employment respectively.

# Description of Intervention

- ▶ The project emerged from the Government of Haryana's interest in testing policies to narrow gender gaps.
- ▶ "*Taaron ki Toli*", or Gang of Stars aimed to create awareness of gender-based discrimination, change dominant gendered perceptions and promote gender equitable attitudes, raise aspirations, and provide tools to participants to translate attitude change and greater aspirations into behavior change.
- ▶ Influencing a wide range of behaviors related to female education, mobility, work, marriage and fertility.

# Experimental Design

- ▶ An RCT in 314 secondary schools across 4 districts in Haryana.
- ▶ Randomly treat 150 schools.
- ▶ 2.5 school years, 27 regular sessions, students in grade 7 & 8
- ▶ Measuring [attitudes](#), [aspirations](#), [behavior](#), and a rich set of individual and household characteristics through baseline and endline surveys.

# Baseline characteristics

- ▶ Balance of various school characteristics such as co-ed status, urban/rural, number of male and female students, and number of teachers.
- ▶ Balance of gender-related attitudes, aspirations, and behavior between the treatment and control groups.

# Specification

$$Y_{ij} = \beta_0 + \beta_1 \text{Treat}_j + \beta_2 Y_{ij}^0 + \beta_3 \mathbf{X}_{ij} + \epsilon_{ij}$$

- ▶  $Y_{ij}$  is the outcome variable measured at endline for student  $i$  in school  $j$
- ▶  $\beta_1$  represents the average effect of the intervention on the outcome.
- ▶  $\mathbf{X}_{ij}$  controls for grade-gender fixed effects and district-gender fixed effects
- ▶ The hypothesis is  $\beta_1 > 0$

# Results

	Gender Attitudes Index (1)	Aspirations Index (2)	Girls' Behavior Index (3)	Boys' Behavior Index (4)	Behavior Index (5)
Treated	0.250*** [0.019]	0.052*** [0.019]	0.199*** [0.031]	0.461*** [0.031]	0.323*** [0.022]
Basic controls	Yes	Yes	Yes	Yes	Yes
Extended controls	No	No	No	No	No
Observations	13988	13988	7787	6201	13988

**Table 1:** Effects of the gender attitude-change intervention on attitudes, aspirations, and behavior

- ▶ Robustness check for social desirability bias
- ▶ Marlowe-Crowne module questions

## Examining Control Group

To benchmark the size of the program's effect, Table 2 shows the correlation in the control group between endline attitudes and baseline factors that might affect them.

	Gender Attitudes Index (1)	Aspirations Index (2)	Girls' Behavior Index (3)	Boys' Behavior Index (4)	Behavior Index (5)
Female	0.679*** [0.026]	0.268*** [0.024]			1.031*** [0.028]
Baseline Parent Gender Attitudes Index	0.033*** [0.011]	0.026** [0.011]	0.042** [0.018]	0.033** [0.015]	0.035*** [0.009]
Basic controls	Yes	Yes	Yes	Yes	Yes
Extended controls	No	No	No	No	No
Observations	7327	7327	3980	3347	7327

Table 2: Benchmarking the effect sizes

# Attitude Decomposition

Which topics students paid most attention to?, Which attitudes are more malleable?, or Where the program thrust was greatest?

	Education Attitudes	Employment Attitudes	Attitudes towards Female Gender Roles	Fertility Attitudes
	(1)	(2)	(3)	(4)
Treated	0.190*** [0.020]	0.319*** [0.020]	0.223*** [0.021]	0.036** [0.018]
Basic controls	Yes	Yes	Yes	Yes
Extended controls	No	No	No	No
Observations	13988	13988	13988	13988

Table 3: Effects of intervention on attitude subindices

# Heterogeneity of Effects

	Gender Attitudes Index (1)	Aspirations Index (2)	Behavior Index (3)	Gender Attitudes Index (4)	Aspirations Index (5)	Behavior Index (6)
Treated	0.281*** [0.028]	0.078*** [0.028]	0.462*** [0.029]	0.279*** [0.039]	0.049 [0.037]	0.331*** [0.036]
Treated*Female	-0.055 [0.037]	-0.047 [0.036]	-0.250*** [0.036]			
Treated*Above median baseline parent attitudes				-0.043 [0.051]	-0.006 [0.049]	-0.053 [0.042]

Table 4: Heterogeneity of effects by gender and baseline parent attitudes

## Two Remarks

1. Boys and girls can adopt gender-equal attitudes with relatively equal ease, but girls face more constraints on translating their attitudes into behavior
2. Little evidence to conclude that pro-girl parent attitudes facilitate or hinder the success of the intervention

# Behavior Decomposition

	Interaction with the Opposite Sex	Participation in HH Chores	Supporting Female Relatives' Ambitions	Girls' Mobility	Girls' Decision- making
	(1)	(2)	(3)	(4)	(5)
Treated	0.277*** [0.041]	0.078** [0.035]	0.484*** [0.029]	0.092*** [0.026]	0.016 [0.029]
Treated*Female	0.146*** [0.045]	-0.070 [0.044]	-0.453*** [0.033]		
Basic controls	Yes	Yes	Yes	Yes	Yes
Extended controls	No	No	No	No	No
Observations	13988	13988	13988	7787	7787

Table 5: Effects of intervention on behavior subindices

- A quite general phenomenon that men face fewer external constraints on their behavior and specifically to act in a more gender-progressive way than women do.

# Changes in Perceived Social norms

	<i>Social norms towards work</i>			<i>Social norms towards education</i>		
	<i>Student agrees that...</i>			<i>Student agrees that...</i>		
	women should be allowed to work	community thinks women should be allowed to work	women should be allowed to work and thinks community will not oppose them	women should be allowed to study in college even if it is far away	community should be allowed to study in college even if it is far away	women should be allowed to study in college and thinks community will not oppose them
	(1)	(2)	(3)	(4)	(5)	(6)
Treated	0.129*** [0.011]	0.052*** [0.013]	0.072*** [0.012]	0.084*** [0.008]	0.056*** [0.014]	0.067*** [0.013]
Basic controls	Yes	Yes	Yes	Yes	Yes	Yes
Extended controls	No	No	No	No	No	No
Observations	6862	6464	6409	7074	6752	6717

Table 6: Effect of intervention on perception of social norms

# Conclusion

- ▶ A school-based gender attitude change intervention could succeed in making adolescents' attitudes less discriminatory, raise girls' aspirations, and reduce gender-biased behavior
- ▶ The approach centered on having students think about and discuss gender differences and gender equality in classroom sessions
- ▶ Based on our short-run findings, we hope to track the respondents into adulthood to examine long-run outcomes.

Thanks for your attention!