# **Leader Identity and Coordination**

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**Appendix A: Tables and Figures** 

Table A1 Number of Sites and Respondents Across Different Treatment Arms

			Affirmative	
	Control	Contact	Action	Total
<u>Total</u>				
# sites	14	15	15	44
# groups	82	87	88	257
# respondents	328	348	352	1028
Low-conflict districts				
# sites	6	6	7	19
# groups	36	35	40	114
# respondents	144	140	160	456
High-conflict districts				
# sites	8	9	8	25
# groups	46	52	48	150
# respondents	184	208	192	600

**Table A2 Demographic Characteristics Across Towns in Different Treatment Groups** 

Demographic Characteristics Across Towns in Different Treatment Groups							
	Control	Contact	AA	p-value of difference	p-value of difference		
				(Contact v Control)	(Control v AA)		
Panel A: Town characteristics (Census 2011)							
Total Population	13709	14646	14011	0.727	0.917		
Fraction Muslim	0.43	0.40	0.38	0.803	0.631		
Women per 1000 men	913	908	902	0.665	0.415		
Girls per 1000 boys (age 0-6)	919	911	904	0.738	0.463		
Fraction literate	0.58	0.57	0.58	0.808	0.978		
Fraction women literate	0.50	0.49	0.50	0.880	1.000		
Fraction SC	0.13	0.13	0.13	0.986	0.949		
Fraction ST	0.00	0.00	0.00	0.488	0.323		
Work participation, male	0.46	0.47	0.46	0.355	0.837		
Work participation, female	0.11	0.14	0.14	0.167	0.262		
Fraction working men in household enterprise	0.07	0.08	0.07	0.612	0.912		
Fraction working men in non-agri and non-HH enterprise	0.65	0.60	0.64	0.555	0.894		
Panel B: Experiment participant characteristics							
Male	0.67	0.60	0.60	0.065	0.059		
Age	24.1	24.7	22.5	0.382	0.014		
Scheduled Caste or Scheduled Tribe	0.16	0.13	0.16	0.357	0.847		
Other Backward Caste	0.58	0.50	0.51	0.055	0.091		
Only primary education	0.13	0.12	0.12	0.646	0.686		
Completed grade 10	0.23	0.19	0.24	0.132	0.909		
Completed grade 12	0.39	0.35	0.37	0.347	0.659		
Completed college	0.25	0.34	0.27	0.007	0.497		
Family monthly income <=Rs 5,000	0.19	0.21	0.16	0.568	0.335		
Family monthly income Rs 5,000-10,000	0.31	0.30	0.29	0.875	0.574		
Family monthly income Rs 10,000-15,000	0.24	0.19	0.22	0.147	0.507		
Family monthly income Rs 15,000-30,000	0.17	0.23	0.23	0.069	0.063		
Family monthly income > Rs 30,000	0.09	0.07	0.11	0.302	0.550		
Pray several times a day	0.26	0.28	0.25	0.412	0.856		
Pray once a day	0.61	0.58	0.60	0.519	0.811		
Pray less than once a day	0.14	0.13	0.15	0.889	0.577		

Notes: p-value of difference is calculated by regression on the treatment dummies and using robust standard errors.

**Table A3 Coordination Game Payoff Table** 

		Minimum of the Hours Spent by Other Employees						
		0	5	10	15	20		
	0	₹ 500	₹ 500	₹ 500	₹ 500	₹ 500		
My Hours working	5	₹ 375	₹ 575	₹ 575	₹ 575	₹ 575		
	10	₹ 250	₹ 450	₹ 650	₹ 650	₹ 650		
	15	₹ 125	₹ 325	₹ 525	₹ 725	₹ 725		
	20	₹0	₹ 200	₹ 400	₹ 600	₹ 800		

Table A4
Experiment Participant Characteristics Across Groups with Hindu and Muslim Leaders

	Hindu leader	Muslim leader	p-value of difference
Male	0.64	0.60	0.235
Age	23.7	23.8	0.755
Scheduled Caste or Scheduled Tribe	0.16	0.13	0.172
Other Backward Caste	0.51	0.55	0.172
Only primary education	0.12	0.12	0.812
Completed grade 10	0.23	0.21	0.333
Completed grade 12	0.37	0.37	0.770
Completed college	0.28	0.30	0.457
Family monthly income <=Rs 5,000	0.17	0.20	0.126
Family monthly income Rs 5,000-10,000	0.31	0.29	0.568
Family monthly income Rs 10,000-15,000	0.25	0.19	0.031
Family monthly income Rs 15,000-30,000	0.19	0.23	0.126
Family monthly income > Rs 30,000	0.09	0.09	0.818
Pray several times a day	0.26	0.27	0.780
Pray once a day	0.59	0.60	0.918
Pray less than once a day	0.15	0.14	0.619

Notes: p-value of difference is calculated by regression on the Muslim leader dummy and using robust standard errors.

**Table A5 Summary Statistics of Key Variables** 

	Hin	du Leaders		Mus	lim Leaders	
	Control	AA	Contact	Control	AA	Contact
Minimum effort in group (rounds 1-4)	3.29	3.78	3.78	3.45	3.47	3.78
<b>5 1</b> · · · · · · · · · · · · · · · · · · ·	4.40	4.14	3.96	4.34	3.44	4.28
Minimum effort in group (rounds 5-6)	2.80	5.68	6.05	4.51	3.69	5.85
<b>5</b> 1 ( )	3.92	3.86	4.65	4.53	4.37	4.73
Leader Proposal (rounds 5-6)	9.39	12.22	11.98	10.49	11.88	11.65
	6.23	4.52	5.31	5.67	4.67	4.51
Individual effort (Hindus)	7.41	9.45	9.67	9.75	9.19	9.36
	6.26	5.82	5.75	6.46	6.11	5.72
Individual effort (Muslims)	8.51	9.88	10.23	9.41	9.72	9.57
,	6.35	5.47	5.54	6.16	5.48	5.81

Standard deviations in italics

Table A6
Do Leader Proposals Across Leader Identity and Treatment Arms?

Dependent variable: Leader Proposal (Periods 5 and 6)

	(1)	(2)
	Across Leader	Across
	Identity	Treatments
	Control Group	All Groups
Muslim Leader	1.093	0.923
	(0.979)	(1.000)
Muslim Leader * AA		-1.855
		(1.329)
Muslim Leader * Contact		-1.730
		(1.442)
Observations	164	504
R-squared	0.512	0.308
Mean for Hindu leaders in control group	9.390	9.390
Town FE	Yes	Yes
Demographic Controls	Yes	Yes
Religious Controls	Yes	Yes

Standard errors in parantheses, clustered at group level. Demographic controls include gender, age, education and monthly household income; religious controls include dummies for whether the participant prays several times a day or once a day.

Table A7
Alternative Explanations for Higher Coordination in Muslim-led Groups

Dependent variable: Minimum Effort in the Group

Dependent variable. Minimum Effort in	i ine Group					
	(1)	(2)	(3)	(4)	(5)	(6)
	Muslim	Leader	Muslin	Muslim Leader		about
	Comp	etence	Exp	osure	Leader	Effort
	Muslim	Hindu	Muslim	Hindu	Muslim	Hindu
	Leaders	Leaders	Leaders	Leaders	Leaders	Leaders
Leader (Period>4)	0.925	-0.138	1.833	-0.167	1.067	-0.488
	(0.754)	(0.487)	(0.669)	(0.619)	(0.509)	(0.393)
Leader* Fraction believe that Muslim	0.801	-2.492	, ,		,	
leaders are less competent	(2.478)	(2.288)				
Leader*Town has Muslim mayor			-1.208	-0.506		
			(0.959)	(0.798)		
Beliefs about average hours worked					0.35	0.577
by leader of the group					(0.199)	(0.144)
Observations	246	246	246	246	246	246
R-squared	0.488	0.439	0.484	0.436	0.492	0.490
Town FE	Yes	Yes	Yes	Yes	Yes	Yes
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes
Religious Controls	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors in parantheses, clustered at group level. Demographic controls include gender, age, education and monthly household income; religious controls include dummies for whether the participant prays several times a day or once a day. "Fraction believe that Muslim leaders are less competent" are those that agree with the statement "Do you think Muslim leaders are less capable relative to Hindu leaders?" in our post-experiment survey (27% of Hindus and 10% of Muslims answered yes). "Town has Muslim mayor" is a dummy that equals one if the town elected a Muslim mayor in the most recent urban local council elections of 2012 (17 out of 44 towns). Beliefs about hours worked by their leader was elicited by direct questions in the post-experiment survey.

Table A8
Leader Identity and Social Appropriateness of High Effort Choices

Panel A: Views of Hindu subjects

	Hindu leaders	Muslim leaders	p-value of difference
Hindu employees	2.76	2.72	0.38
Muslim employees	2.66	2.80	0.00

Panel B: Views of Muslim subjects

	Hindu	Muslim	p-value of
	leaders	leaders	difference
Hindu employees	2.75	2.70	0.18
Muslim employees	2.75	2.76	0.82

Numbers are the mean values of answers to the question "How socially appropriate would others consider it to be for a Hindu/Muslim employee to choose the 20 hours effort under a Hindu/Muslim leader?" Answers were on a scale of 1 to 4, where 1 represents "not at all socially appropriate" and 4 represents "very socially appropriate."

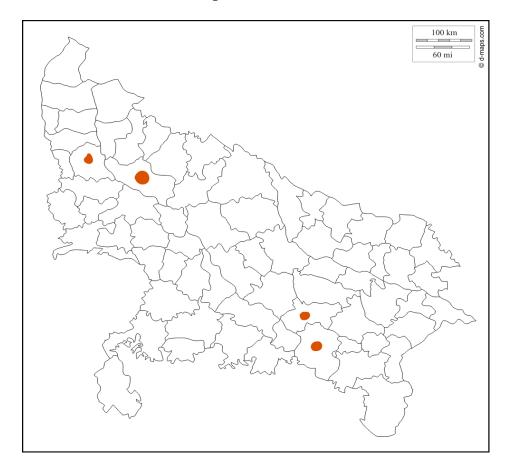
Table A9
Leader Identity and Individual Effort in Different Policy Environments

Dependent variable: Effort Choice of Participant

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
	Muslim	Muslim Leaders		Hindu Leaders		Leaders	Hindu	Hindu Leaders	
	Muslim	Hindu	Muslim	Hindu	Muslim	Hindu	Muslim	Hindu	
	Employees	Employees	Employees	Employees	Employees	Employees	Employees	Employees	
Leader (Period>4) $f_1$	1.157	0.377	0.015	-1.156					
	(0.427)	(0.522)	(0.509)	(0.401)					
Leader (Period>4)* $AAf_2$	-0.628	-0.420	0.088	2.524	-0.622	-1.549	1.098	2.454	
	(0.615)	(0.730)	(0.652)	(0.666)	(0.796)	(0.742)	(0.809)	(0.686)	
Leader (Period>4)*Contact $f_3$	-0.163	0.712	0.602	2.392	-0.146	-0.248	1.821	2.587	
	(0.672)	(0.670)	(0.670)	(0.680)	(0.677)	(0.655)	(0.829)	(0.596)	
Observations	1494	1524	1506	1506	498	508	502	502	
R-squared	0.197	0.153	0.178	0.231	0.223	0.215	0.087	0.347	
Town FE	Yes	Yes	Yes	Yes	No	No	No	No	
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Religious Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Experimental Controls	No	No	No	No	Yes	Yes	Yes	Yes	

Standard errors in parantheses, clustered at group level. Demographic controls include gender, age, education and monthly household income; religious controls include dummies for whether the participant prays several times a day or once a day; experimental controls include the leader's proposal and the group minimum effort in period 4. Data includes effort choices of both leaders and employees.

Figure A1
Districts Chosen for Experimental Sites



Notes: Map of districts in Uttar Pradesh state, India. Sites chosen are Aligarh (high-conflict) and Budaun (low-conflict) in the western part of the state and Allahabad (high-conflict) and Pratapgarh (low-conflict) in the central part of the state.

Figure A2
Experimental Setting and Layout of Player Locations





Four players were seated on each mat. Participants were told that the people on the mat were not part of their firm. Participants were provided folders so that their effort choices were not visible to other players. They were also instructed not to look at other players' choices. Each mat also had a research assistant to explain the experimental procedures to the participants.

Figure A3
Puzzle Game in Different Groups

# A. Solve Individually in Control and AA Groups



# **B.** Solve with a Partner in the Contact Group



Figure A4 Leader Identity and Leader Proposals (Histogram)

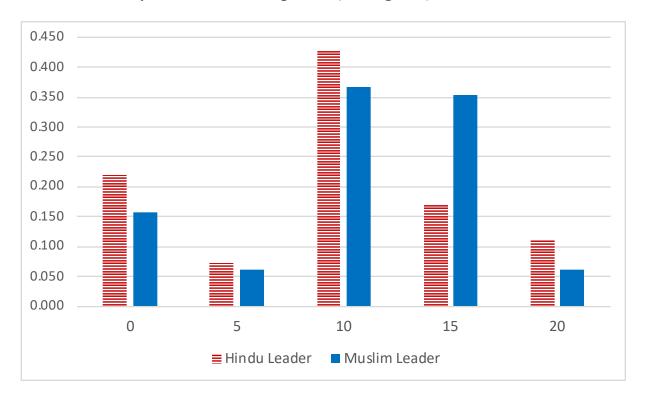
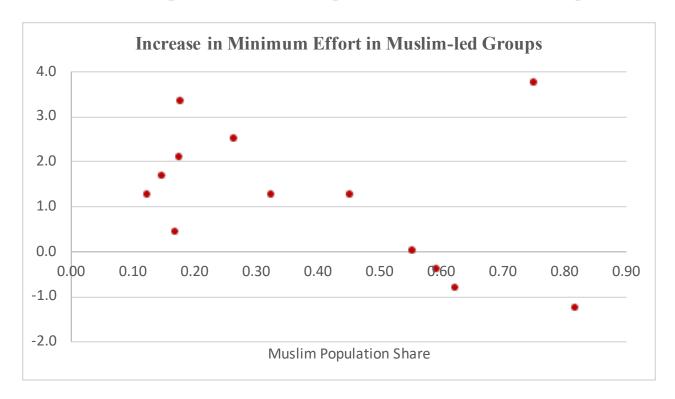


Figure A5
Muslim Leader Impact and Muslim Population Share (Control Group Towns)



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Appendix B
Details of Field Experiment

# **B1. Site Selection, Subject Recruitment and Experimental Procedures**

B1.1. Site Selection and Balance Across Treatment Arms

Based on data on the incidence of religious violence over 1980-2010 (Kaysser et al., 2015), we selected two pairs of neighboring districts in Uttar Pradesh, India's most populous state. Each district pair was composed of one high conflict district and one low conflict district (see map in Appendix Figure A1). One pair was in the western part of the state (Aligarh and Budaun) while the other was in the central part of the state (Allahabad and Pratapgarh).

The experiment was conducted in 44 sites in July 2017 with 1028 subjects. Within each district, we selected sites based on the following criteria: (i) they were officially listed as towns in the census of 2011,¹ (ii) their population was below 50,000, (iii) they had a relatively high population share of Muslims, and (iv) selected towns were comparable in their demographics across high conflict and low conflict districts. The average town in our experimental sample had 40% Muslims in the population, compared to the overall state proportion of 19%.² We focus on towns rather than villages, as Muslims are more likely to live in urban areas. This has the added benefit of comprising a more educated populace, reducing issues surrounding the understanding of the experimental tasks.

The 44 town level sessions consisted of 24 participants each,<sup>3</sup> resulting in a sample of 1028 subjects. The 44 sites were randomly assigned to three different treatment arms: 14 sites are retained

<sup>&</sup>lt;sup>1</sup> Towns in India are defined as (a) statutory towns i.e. all places with a municipality, corporation, cantonment board or notified town area committee or (b) all other places which satisfied the following criteria: (i) a minimum population of 5,000; (ii) at least 75 per cent of the male main working population engaged in non-agricultural pursuits; and (iii) a density of population of at least 400 persons per sq. km.

<sup>&</sup>lt;sup>2</sup> According to the census of 2011, Hindus and Muslims account for more than 99% of the population of Uttar Pradesh.

<sup>&</sup>lt;sup>3</sup> There were a few exceptions due to recruitment difficulties: sessions consisted of 20 participants in three towns, and 16 participants in two towns. Our results control for town fixed effects and are robust to the exclusion of the towns with recruitment difficulties.

as control, and 15 each are assigned to the intergroup contact treatment and to the affirmative action treatment (see Appendix Table A1). The assignment was performed within each district (i.e. implicitly stratifying by high/low conflict status) and by further stratifying by Muslim population proportion and total population. We verify that census 2011 and respondent demographic characteristics are balanced across the different treatment arms (see Appendix Table A2, Panels A and B). In particular, we find that only 8 out of 56 comparisons in this table show statistically significant differences, a small proportion relative to the overall number of tests. Nevertheless, we control for all these characteristics in our regressions to ensure that these small differences in participant characteristics do not bias our results; results without these controls are remarkably similar to those with controls.

#### B1.2. Subject Recruitment

To recruit participants for the experiment, our research assistants visited both the Hindu and the Muslim sections of each town, and distributed flyers containing information about participant requirements (age and numeracy), remuneration (between 200-1000 rupees), time and location of the experimental sessions. Flyers were also posted at prominent landmarks and distributed at shops, temples and mosques. Average renumeration was relatively high (about 2.5 days wage for the average labourer) to ensure a varied distribution of the population. Upon arrival, participants were screened for eligibility (over the age of 18 and could read numbers) and their names were recorded on a participant list that was not visible to other participants. Upon commencement of the experiment, an equal number of Hindus and Muslims were selected from the list. Once seated, participants were given a number tag representing their randomly assigned identification number.

In India, it is relatively easy to identity Muslims from their names. After recording participant names, research assistants identified religion from name. The accuracy of this coding of religion was cross-checked once subjects completed the pre-experiment questionnaire. There were only 2

misclassifications of religion based on name (these participants were compensated and replaced with others prior to the experiment). Subject ID numbers were never matched with participant names, and the list of participant names were destroyed at the end of each session.

#### B1.3. Experimental Procedures

Effort choices in the coordination task were made individually using pen and paper and within a large binder. To ensure privacy we implemented a number of measures:, subjects were required to write all answers within a large plastic folder that easily hid their responses; the mats were quite large-each subject was over 2 meters from others on the mat, a research assistant sat on each mat to ensure privacy and that subjects did not talk to one another; finally, participants were instructed not to look at other players' choices. The research assistant was also tasked with answering questions and ensuring privacy.

Each session was run with six research assistants including one experimenter. At the start of a task, instructions were read aloud by the experimenter to establish common knowledge. To determine whether subjects understood the instructions, each participant answered a set of control questions in private both before the first period and at the start of the fifth period (when the leader is introduced). Control questions mainly focused on understanding the payoff table. The experimenter and research assistants cross-checked the answers and started the experiment once satisfied that subjects understood the task.

To ensure the anonymity of the leader, in all sessions, the leader's proposed effort was elicited after the control questions were answered, but before collecting the control question answer sheets i.e. it was not possible to identify a leader by seeing who was writing a suggested effort, since everyone was answering control questions. At the end of the session, each subject was privately paid in cash for one of the tasks (excluding the pre-experiment survey).

#### **B2.** Experiment Instructions

#### Overview

As part of today's experiment, you will be participating in three games. You will be given Rs 200 for participating and you can earn more money based on your decisions in the games. You will be paid for only one of the three games. Only you will know the amount you have earned. The payment will be made in cash. At the *end* of the session today, we will pick a number out of a bag, this will determine which game you will be paid for. So, which game you will be paid will be decided by chance. Since you do not know which game you will be paid for, you should ensure you understand the rules in all the games. Do ask if you do not understand something. After we have completed all the games, I would like you to answer some questions about yourself. Before we begin, please turn off your phone, we are about to read aloud the consent form which will briefly explain the basic activities, and the rules to follow.

#### Consent for Participation in Research

#### Introduction

I will now inform you about the study so you can decide whether or not to participate. Please listen carefully and ask any questions you might have before deciding whether or not to take part.

## Purpose of the Study

You have been asked to participate in a research study about understanding how individuals make decisions in different group settings.

#### What will you be asked to do?

You will be asked to participate in a game, where you will make decisions corresponding to your assigned role, according to the rules of the game.

After participation in the game, you will complete a survey questionnaire. You can skip any question that makes you uncomfortable and you can stop the survey at any time. This study will take approximately 4 hours to complete. If you are not free for this time, please let us know. In your location, there will be approximately 24 people participating in the study.

### What are the risks involved in this study?

There are no foreseeable risks from participating in this study.

# What are the possible benefits of this study?

If you participate, you will be paid Rs. 200 as a participation fee. In addition, you could earn more money throughout the study depending on your decisions. You can earn up to Rs. 1000. You cannot lose any money by playing these games. Payments will be made after the game and the survey have been completed.

There are no other direct benefits to you of this study, beyond the compensation you will receive for your participation and the decisions you make in the games.

#### Do you have to participate?

Your participation is voluntary. You may decide not to participate at all or, if you start the study, you may withdraw at any time. If you want to withdraw from the study, raise your hand and say so, turn in your materials, and leave the study area. If you leave this experiment incomplete, you will only receive the participation fee and not the money earned on the basis of your decisions.

# How will your privacy and confidentiality be protected if you participate in this research study?

Your data will remain confidential. All records of your participation will be assigned a code number. We will not retain any information connected to your identity such as name, address or phone number. All other information will only be used by the researchers involved in the project.

#### **Participation**

If you agree to participate, please say so to the researcher reading this form to you. Also, let this person know if you would like a copy of this form.

<Do not read below>

#### Whom to contact with questions about the study?

If you would like to contact the researchers involved in the project please let us know.

Prior to, during or after your participation you can contact the researcher Lakshmi Iyer at +1-617-319-0955 or send an email to liyer@nd.edu for any questions or if you feel that you have been harmed. You may also contact Professor Debayan Pakrashi at IIT Kanpur +91-40-2318-7267

This study has been reviewed and approved by The University's Institutional Review Board and the study number is 17-05-3869.

# Whom to contact with questions concerning your rights as a research participant?

For questions about your rights or any dissatisfaction with any part of this study, you can contact, anonymously if you wish, the Notre Dame Research Compliance Office, at 574-631-1461 or by email at <a href="mailto:compliance@nd.edu">compliance@nd.edu</a>.

#### Instructions

Before we begin the games, we are going to ask you a few questions. Please take your time and answer as honestly and as accurately as possible. You will not be identified and your answers will only be used for this experiment and will only be used by the researchers involved in this project.

# <Hand out questionnaire>

I'll first read each question aloud and then you will have time for your response. Please do not say your answer aloud, only mark your response on your paper.

[Say the question number first, read the question and the possible responses (and the number of the response) and give the subjects time to answer.]

## Initial Questionnaire

	Question	Response
		1.□ 0-4 feet
1	What is your height?	2.□ 4.1-7 feet
		1.□ Yes
2	Is your hair colour black?	2.□ No
		1. ☐ Muslim
	What is your religion?	2. ☐ Hindu
3	What is your religion?	3. ☐ Christian
		4. □ Buddhist
		1. □ Yes
4	Is your eye colour blue?	2. □ No

#### Game 1

You are about to begin the first game. In this game, you will be given a puzzle. Your aim is to complete the puzzle. You will be given 12 minutes to solve it. If you complete the puzzle and the game is chosen for payment you will receive 400 rupees. Along with the puzzle you must answer one question, this question can be found in your puzzle pack. Please do not talk at any time while completing this puzzle. Once you have completed the puzzle please wait patiently until the time limit has been exhausted. We will collect all puzzle packs at the end of the allotted time.

Contact treatment: In this game you with he paired with someone in the room. Together you will receive a puzzle. Your groups aim is to complete the puzzle together. You will be given 12 minutes to solve the puzzle. If you complete the puzzle and the game is chosen for payment you and your group member will each receive 400 rupees. Along with the puzzle you must answer one questions, this question can be found in your puzzle pack. You can talk to your group member, but no one else in the room. Once your group has completed the puzzle please wait patiently until the time limit has been exhausted.

We will collect all puzzle packs at the end of the allotted time.

<Hand out the puzzle packs.>

Question at the end of the puzzle is:

- Q) What is the picture in the puzzle
- 1. Mowgli and Motu-Patlu
- 2. Spider-Man and Ninja Hathodi
- 3. Krrish and Ben Ten
- 4. Angry Birds and Doraemon

#### Game 2

We are about to begin the second game. All the money that you earn from this game is yours to keep and will be given to you at the end of this experiment if this game is chosen as the one that you will be paid for.

Please listen carefully. It is important that you understand the instructions of the game properly. If you do not understand, you will not be able to participate effectively. We will explain the game and go through some examples together. In this game, you are not allowed to talk or discuss the game with people around you. There will be opportunities to ask us questions to be sure that you understand how to perform the game. Also, do not look at other's responses at any time during this game and please keep your sheets in your folder at all times.

In this game, you will be grouped with three other participants from those in this room so the four of you form a group. In this game, your group of four will form a company. Everyone in the company will play as a company employee. (emphasis)\_You will never know which of the other participants are in your company and your other company members will never know your identity.

**Decision:** In this game, you need to decide how many hours you would like to spend working (notionally) for the company. The available choices are 0, 5, 10, 15 or 20 hours. You won't be working actual hours, this is hypothetical, but your payoffs from your decisions are real. That is, you will be paid cash if this game is chosen for payment.

**Payoffs:** Your reward depends on the number of hours you work at the company <u>and</u> the number of hours the other members of your company decide to work. In particular, it depends on the **minimum** number of hours the others in your company work.

Please take a look at the table below, to identify how your payment will be calculated. This table shows your total earnings excluding show up fee. In this table, real payoffs are given; That is,

the table represents the amount you can receive in cash at the end of the experiment. <u>Explain that</u> columns represent the minimum number of hours spent by other employees in the company. Rows indicate the number of hours you spend working. Give subjects 2 minutes to study the table.

Payoffs can be seen in the Table below:

		Minimur	Minimum of the Hours Spent by Other Employees				
		0	5	10	15	20	
	0	₹ 500	₹ 500	₹ 500	₹ 500	₹ 500	
My Hours	5	₹ 375	₹ 575	₹ 575	₹ 575	₹ 575	
working	10	₹ 250	₹ 450	₹ 650	₹ 650	₹ 650	
	15	₹ 125	₹ 325	₹ 525	₹ 725	₹ 725	
	20	₹0	₹ 200	₹ 400	₹ 600	₹ 800	

- If you don't spend any hours working you will receive 500 rupees.
- Every hour you spend working reduces your reward by 25 rupees. We do this to represent that
  working requires effort which is costly; since you won't actually be working, we just impose a
  cost of Rs 25 per hour.
- If you work more hours and someone else (even just one person) in your company works less hours, then you will earn less. That is, if you work more hours and others in the company do not work, then the company wont be able to function effectively so you will earn less.
- If you work more hours and everyone else works more hours, you will earn more. That is, if you work more hours and others also work, the company will be able to function effectively so you will earn more.

# Here are 3 examples of what could happen, you can follow along on the diagrams at the front: Example 1:

You spend 15 hours working at the company and two of the people in the company work 20 hours,

but the fourth works 5 hours. Your payoff depends on only two things: the hours you work and the hours worked by the person in the company who works the least hours, in this case 5 hours.

Looking at the table, you can see that your total income from this game is: ₹ 325. Again, this represents real cash.

## Example 2:

You spend 0 hours working at the company. The other three people in the company work 10, 5 and 15 hours respectively.

Looking at the table, you can see that your total payoff from this game is: ₹ 500.

## Example 3:

You spend 15 hours working. The others in the company work 15, 20 and 20 hours each.

Looking at the table, you can see that your total income from this game is: ₹ 725.

This game will be played for six rounds. Your company will stay the same. You will be paid for one randomly selected round, if this game is chosen for payment. At the end of each round you will be informed of the minimum hours worked in your company.

#### In summary:

- 1) Everyone is assigned to a group of four. This is your company
- 2) Each person must decide how many hours to work for the company. This is only a decision in this game. Your decisions impact your payoffs.
- 3) This game repeats itself six times, with the same employees.

## Confidentiality and Payoff:

At no point in time will we identify the identity of an employee in the company. In other words, the actions you take will remain confidential. At the end of the experiment today you will be informed of your payoff and paid this amount in cash in private along with your show up fee. You will be paid privately and we will not disclose your payoffs to the other participants in the experiment.

#### <Hand out Information sheet>

«Explain that this sheets contains information about the game. Have subjects turn to the second page, and explain that they are employees and their group consists of 4 employees in total. Move to the third page and explain the control questions

# **Quality Control Questions**

Before we begin the game, we will ask you some questions to ensure that you understand the game.

Using the payoff Table in front of you please answer the following questions

Payoffs can be seen in the Table below:

		Minimun	Minimum Hours Spent by Other Employees working					
		at the con	at the company					
		0	0 5 10 15 20					
	0	₹ 500	₹ 500	₹ 500	₹ 500	₹ 500		
	5	₹ 375	₹ 575	₹ 575	₹ 575	₹ 575		
My Hours	10	₹ 250	₹ 450	₹ 650	₹ 650	₹ 650		
working	15	₹ 125	₹ 325	₹ 525	₹ 725	₹ 725		
	20	₹ 0	₹ 200	₹ 400	₹ 600	₹ 800		

Suppose you chose to dedicate 10 hours working at the company. The rest of the employees choose to dedicate 15, 0 and 20 hours to working at the company.

Q1) What is the minimum number of hours worked by the other employees at the company?

Q2) What is your payoff from the above example?

Q2) In this game will your actions and your payoff be confidential?

Q3) In this game how many rounds will you take part in?

<Check all control questions. Collect information sheets and hand out round 1 decision sheets >

Information at the end of Round 1

You will now play this game again with the same company employees. You will also be informed of

the minimum hours worked in the company in round 1. You can use this and the payoff table to

identify your possible payoffs. Again, the numbers in your payoff table represent real money you can

earn. Please raise your hand if you have any questions.

<Hand out round 2 decision sheets>

<Collect round 2 decision sheets>

Information at the end of Round 2

You will now play this game again with the same company employees. You will also be informed of

the minimum hours worked in the company in round 2. You can use this and the payoff table to

identify your possible payoffs. Again, the numbers in your payoff table represent real money you can

earn. Please raise your hand if you have any questions.

<Hand out round 3 decision sheets>

<Collect round 3 decision sheets>

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# Information at the end of Round 3

You will now play this game again with the same company employees. You will also be informed of the minimum hours worked in the company in round 3. You can use this and the payoff table to identify your possible payoffs. Again, the numbers in your payoff table represent real money you can earn. Please raise your hand if you have any questions.

<Hand out round 4 decision sheets>

<Collect round 4 decision sheets>

#### Information at the end of Round 4

The game will repeat for another two rounds. Your company will stay the same but please listen to the following additional information.

#### Further Information (Treatment 1: Control + Contact):

- 1. The company has decided to introduce a leader. Within each company there will be one leader and 3 employees. You will either be the leader of the company or you will stay as an employee. You will not be informed of the identity of the leader i.e you will not know who the leader is. Instead, employees will be informed of some characteristics of the leader taken from the questionnaire they filled out at the beginning of today's session.
- 2. The leader's task is to propose the number of hours employees should devote to working at the company. This could be either 0, 5,10,15 or 20 hours. The leader can only make one suggestion for the whole company. The leader's suggestion is only a suggestion.

3. All employees will be informed of the leader's proposal. After this, all employees including the leader must decide how many hours to work at the company.

## Further Information (Treatment 2: Affirmative Action):

- 1. The company has decided to introduce a leader. Within each company there will be one leader and 3 employees. You will either be the leader of the company or you will stay as an employee. You will not be informed of the identity of the leader i.e you will not know who the leader is. Instead, employees will be informed of some characteristics of the leader taken from the questionnaire they filled out at the beginning of today's session
- 2. The leader's task is to propose the number of hours employees should devote to working at the company. This could be either 0, 5,10,15 or 20 hours. The leader can only make one suggestion for the whole company. The leader's suggestion is only a suggestion.
- 3. All employees will be informed of the leader's proposal. After this, all employees including the leader must decide how many hours to work at the company.
- 4. Similar to many government positions, 50% of the leadership positions in this game will be reserved. Reservation is based on some important characteristic of the leader taken from the questionnaire they filled out at the beginning of today's session. Employees will be informed if the leader of their company is in a reserved or an unreserved position.

## In summary:

- 1) A company leader is chosen, all other participations stay as company employees.
- 2) AA only-Within this game, some of the leadership positions will be reserved. Leadership positions are reserved for leaders with certain characteristics.
- 3) To inform employees of the leader's characteristics, employees will be given the leaders response to the initial questionnaire.
- 4) The company leader must suggest to employees the number of hours to spend working at the company.
- 5) Company employees are then informed of the leader's suggestion.
- 6) All company employees including the leader must decide how many hours to devote to working at the company.
- 7) The game repeats for two rounds then ends.

# <Hand out round 5 information sheets>

<Refer subjects to the second page, where they will be informed of their role as either the leader or employee. Inform them that if they are leaders, in their sheets the word would be highlighted in yellow; and if they are employees, in their sheets the word would be highlighted in blue. The third page contains a control question, while the fourth page contains the leaders suggested proposal. Read this out and check responses.>

# < Collect all information sheets>

#### <Hand out round 5 decision sheets>

Explain that the first page of the decision sheet contains information on the minimum number of hours worked in the last round, the second page contains information on the leaders proposal and the leaders characteristics. On the third page subjects must input the number of hours they will work this round. The leaders have an additional page, where they must suggest the number of hours in the final round. Mention these pages simultaneously.

Extra for AA- Remind people that on the second page, they are told if their leaders position is reserved or not.

#### <Collect round 5 decision sheets>

#### Information at the end of Round 5

You will now play this game again with the same company employees and the same company leader. You will also be informed of the leaders new proposed number of hours, the leaders characteristics and the minimum hours worked in the company in round 5. You can look at the payoff table to identify your possible payoffs. Please raise your hand if you have any questions

Extra for AA- Remind people that on the second page, they are told if their leaders position is reserved or not.

#### <Hand out round 6 decision sheets>

Explain that the first page of the decision sheet contains information on the minimum number of hours worked in the last round, the second page contains information on the leaders proposal and the leaders characteristics. On the third page subjects must input the number of hours they will work this round. >

<Collect round 6 decision sheets>

#### Information at the end of Round 6

The game is now complete. We will now move to game 3.

#### Game 3

We will now play Game 3. In playing this game, you must decide, for each possible action, whether taking that action is socially appropriate (i.e. consistent with proper social behavior) or not. By "socially appropriate", we mean behaviour that most people agree is the correct thing to do.

Another way to think about this is that if an individual were to act socially inappropriately, then this might make many people angry or uncomfortable with them.

To give you an idea of how the game will proceed, we will go through an example.

#### Example:

A person is at a local store. While there, she notices that someone has left a wallet on the table. She must decide what to do. You must decide whether choosing that option is very socially inappropriate, somewhat socially inappropriate, or very socially appropriate

	1. Very	2. Somewhat	3. Somewhat	4. Very
	Socially	socially	socially	socially
	Inappropriate	inappropriate	appropriate	appropriate
Leave the wallet				
where it is				

**Payment:** At the end of the experiment today, for each question, we will determine which response *most people* selected in today's session. If your response is the same then you will receive Rs 200. In other words, **if you give the same response as that most frequently given by people in today's session, then you will receive an additional Rs 200.** This amount will be paid to you privately, in cash, at the conclusion of the experiment if this game is chosen for payment.

For instance, if we were to select the example situation above and the option "Leave the wallet where it is," and if your response had been "somewhat socially inappropriate," then you would receive Rs 200, in addition to any other earnings you might receive, if this was the response selected by most people in today's session. If you selected very socially inappropriate, somewhat socially appropriate, or very socially appropriate then you would not be paid. It is important you remember in this game you will be paid if your decision is the same decisions as most people in today's session, rather than what you think is socially appropriate.

#### < Have subjects flip to their question sheet. >

Please note that each row is a separate question, we will go through each question together. You will notice there are 21 questions. In front of each question there are four boxes. You should tick one of these four boxes for each question. If your answer is "Very socially inappropriate", tick the first box in front of the question; if it is "Somewhat socially inappropriate", tick the second box; if it is "Somewhat socially appropriate", tick the third box; if it is "Very socially appropriate", tick the fourth box in front of the question. We will randomly select three of the questions to make payment. For each selected question you will be paid if your response is the same as the majority of people in todays session. Since you do not know which questions we will pay, you should ensure you understand all questions. Don't forget we are playing with real money.

# **Questions:**

N	Question	1. Very	2. Somewhat	3. Somewhat	4. Very		
0.		Socially	socially	socially	socially		
		Inappropriate	inappropriate	appropriate	appropriate		
	If a <i>Hindu leader</i> was assigned to	a group, <b>how d</b>	o you think pe	ople in the so	ession		
	would rate each of the following decisions?						
1	A Hindu employee spending 0 hours						
	working at the company						
2	A Hindu employee spending 10 hours						
	working						

3	A Hindu employee spending 20 hours				
	working				
	If a <i>Muslim leader</i> was assigned to	a group, how	do you think p	eople in the s	ession
	would rate each of the following de	cisions?			
4	A Hindu employee spending 0 hours				
	working				
5	A Hindu employee spending 10 hours				
	working				
6	A Hindu employee spending 20 hours				
	working				
	Reminder: Remind people that they	will be paid in	rupees if their r	esponse is the	same as the
	majority of people in todays session	rather than wh	aat <u>you</u> think is so	ocially appropri	iate
	If a <i>Hindu leader</i> was assigned to	a group, how d	o you think pe	ople in the se	ssion
	would rate each of the following de	cisions?			
		Γ			
7	A Muslim employee spending 0 hours				
	working				
8	A Muslim employee spending 10 hours				
	working				
9	A Muslim employee spending 20 hours				
	working				

If a <i>Muslim leader</i> was assigned to a group, how do you think people in the session						
would rate each of the following decisions?						
A Muslim employee spending 0 hours						
working						
WOTKING						
A Muslim employee spending 10 hours						
working						
A Muslim employee spending 20 hours						
working						

The following questions do not refer to game 2.

No	Question	1. Very	2. Somewhat	3. Somewhat	4. Very
		Socially	socially	socially	socially
		Inappropriate	inappropriate	appropriate	appropriate
	Reminder: Remind people that they will be 1	paid if their resp	onse is the san	ne as the majo	rity of
	people in todays session rather than what <u>you</u>	<u>u</u> think is social	ly appropriate		
13	Do you think other believe it is socially				
	appropriate for Muslims to become town				
	leader?				
14	Do you think other people believe it is				
	socially appropriate for Muslims to become				

	leaders (other than the town leader)		
15	Do you think other people believe it is		
	socially appropriate to undertake an		
	abortion if one does not want a son		
16	Do you think other people believe it is		
	socially appropriate to undertake an		
	abortion if one does not want a daughter		
17	Do you think other people believe it is		
	socially appropriate for a Hindu and		
	Muslim to be friends		
18	Do you think other people believe it is		
	socially appropriate for a Hindu and		
	Muslim to marry each other		
19	Do you think other people believe it is		
	socially appropriate for a Hindu and		
	Muslim to eat at each-others' houses		
20	Do you think other people believe it is		
	socially appropriate to express your anger		
	when you are not happy with		
	something/someone		
21	Do you think other people believe it is		
	socially appropriate to act on your anger in		

such circumstances		

#### **Experiment Ends- Payment and Survey**

You have now completed all games. Now we would like you to answer some questions about yourself. You will be placed with one assistant who will go through the survey with you. Please take your time and answer honestly and as accurately as possible. You will not be identified and the assistant will not disclose any information about you. Your survey answers will only be used for this experiment and will only be used by the researcher(s) involved in this project.

After the survey is complete we will we will pay everyone individually and in private.

# **Leader Identity and Coordination**

Sonia Bhalotra University of Essex Irma Clots-Figueras University of Kent

Lakshmi Iyer University of Notre Dame Joseph Vecci University of Gothenburg

**Appendix C: Robustness Checks** 

Table C1 Leader Identity and Effort Choices in the Control Group: Robustness Checks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
	Town rand	om effects	Ordered	l probit		Control for dislike of other religion		ntrol for town	rol for town*mat fixed effects		
	Muslim Leaders	Hindu Leaders	Muslim Leaders	Hindu Leaders	Muslim Leaders	Hindu Leaders	Muslim Leaders Muslim	Muslim Leaders Hindu	Hindu Leaders Muslim	Hindu Leaders Hindu	
							Employees	Employees	Employees	Employees	
Leader (Period>4)	1.067 (0.494)	-0.488 (0.381)	0.328 (0.136)	-0.168 (0.121)	1.067 (0.509)	-0.488 (0.393)	1.120 (0.485)	0.380 (0.590)	-0.144 (0.555)	-1.020 (0.432)	
Observations	246	246	246	246	246	246	462	474	468	456	
Demographic Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Religious Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Standard errors in parantheses, clustered at group level. Demographic controls include gender, age, education and monthly household income; religious controls include dummies for whether the participant prays several times a day or once a day. Columns (7)-(10) exclude one town where we could not recruit a full sample of 24 participants.

Table C2
Policy Environments and Leader Effectiveness, Controlling for Gender of Puzzle Partner

Dependent variable: Minimum Effort in the Group

Dependent variable. Manmam Effort in the Group	(1)	(2)
	Muslim Leaders	Hindu Leaders
Leader (Period>4)	0.456	-0.535
	(0.693)	(0.617)
Leader (Period>4)*AA	-0.940	2.42
	(0.879)	(0.690)
Leader (Period>4)*Contact	3.301	2.956
	(1.191)	(1.063)
Leader (Period>4)*Contact*FemalePuzzle Partners	-4.803	-0.132
	(2.206)	(2.032)
Leader (Period>4)*Female PuzzlePartners	1.669	-0.029
	(1.512)	(1.232)
Female Puzzle Partners	-2.021	0.132
	(1.083)	(0.933)
Observations	702	702
R-squared	0.265	0.349
Town FE	Yes	Yes
Demographic Controls	Yes	Yes
Religious Controls	Yes	Yes

Standard errors in parantheses, clustered at group level. Demographic controls include gender, age, education and monthly household income; religious controls include dummies for whether the participant prays several times a day or once a day. Results exclude five towns where we could not recruit a full sample of 24 participants each.

Table C3
Conflict History and Policy Environments, Controlling for Leader Proposals

Dependent variable: Minimum Effort in the Group

	(1)	(2)	(3)	(4)
	Muslim Leaders	Muslim Leaders	Hindu Leaders	Hindu Leaders
	Low Conflict Areas	High Conflict Areas	Low Conflict Areas	High Conflict Areas
Leader (Period>4)*AA	0.499	-2.502	1.778	2.77
	(1.341)	(1.082)	(0.897)	(0.828)
Leader (Period>4)*Contact	2.460	1.409	1.429	3.812
	(1.097)	(1.150)	(0.788)	(1.176)
Observations	112	146	110	146
R-squared	0.418	0.416	0.428	0.452
Town FE	No	No	No	No
Demographic Controls	Yes	Yes	Yes	Yes
Religious Controls	Yes	Yes	Yes	Yes
Experimental Controls	Yes	Yes	Yes	Yes

Standard errors in parantheses, clustered at group level. Demographic controls include gender, age, education and monthly household income; religious controls include dummies for whether the participant prays several times a day or once a day; experimental controls include the leader's proposal and the group minimum effort in period 4. Results restricted to periods 5 and 6 only, in order to include experimental controls.