Team vs. Individual Behavior with Non-Binding Commitments

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MOTIVATION

- Non-binding communication increases cooperation in trust games
  - *Charness & Dufwenberg 2006, Vanberg 2008, Ederer & Stremitzer 2014, Bhattacharya & Sengupta 2016, Ismayilov & Potters 2016*

- Oftentimes, decision makers are *teams* of people
  - Committees, board of directors, company handshake agreements

- Teams tend toward more strategic play
  - *Charness & Sutter 2012, Kugler et al. 2012, Song 2006, Kugler et al. 2007, Gino et al. 2009, Kagel & McGee 2016, Kocher et al. 2016*

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○ **Question 1:** Does communication increase trust and trustworthiness between teams?

○ Studying teams gives access to within-team chat
  – How do teams make decisions?

○ Communication literature suggests moral costs drive cooperation
  – Expectation-based guilt aversion
  – Preference for commitment

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  – Expectation-based guilt aversion
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○ **Question 2:** Does team dialogue give insight into whether moral costs influence team decision making?
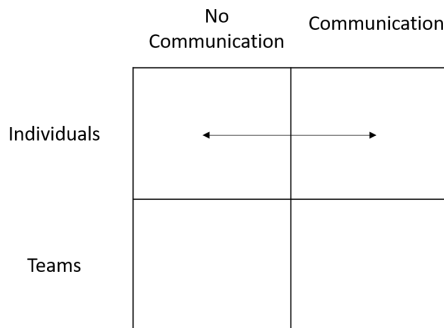
GOALS AND METHODOLOGY

○ Trust game with hidden action (Charness and Dufwenberg 2006)
○ Implement a 2x2 design using a lab experiment

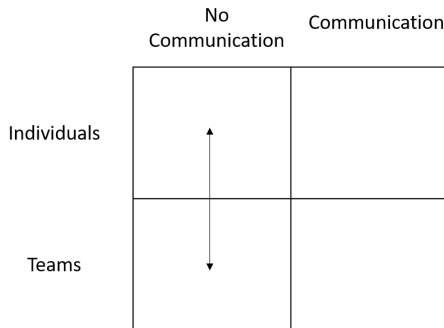|	No Communication	Communication
Individuals		
Teams		

GOALS AND METHODOLOGY

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Charness & Dufwenberg 2006, Vanberg 2008, Ederer & Stremitzer 2014,
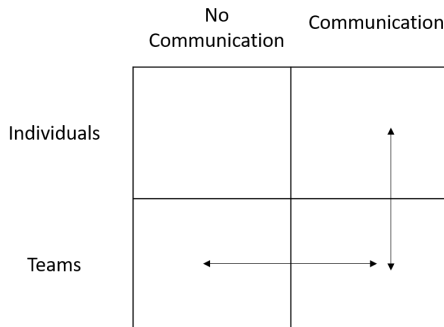*Bhattacharya & Sengupta 2016, Ismayilov & Potters 2016*

- Trust game with hidden action (Charness and Dufwenberg 2006)
- Implement a 2x2 design using a lab experiment

	No Communication	Communication
Individuals		
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Similar to Kugler et al. 2007
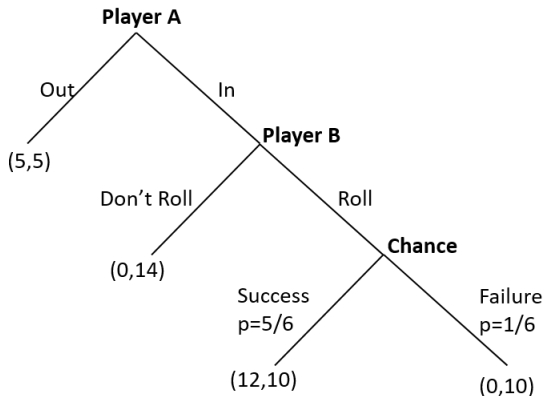
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Our contribution
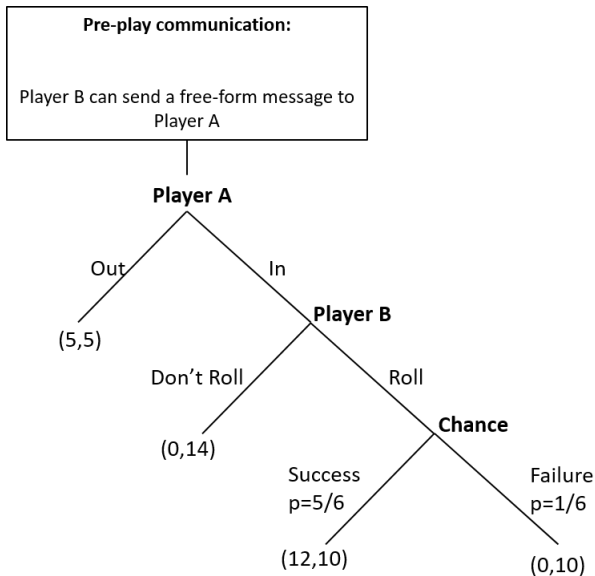
THE GAME: NO COMMUNICATION

Player A

Out   In

(5,5)

Player B

Don't Roll   Roll

(0,14)

Chance

Success
p=5/6   Failure
p=1/6

(12,10)   (0,10)

NE Prediction: {Out, Don't Roll}

THE GAME: COMMUNICATION

Pre-play communication:

Player B can send a free-form message to Player A

Player A

Out

In

(5,5)

Player B

Don't Roll

Roll

(0,14)

Chance

Success
p=5/6

Failure
p=1/6

(12,10)

(0,10)
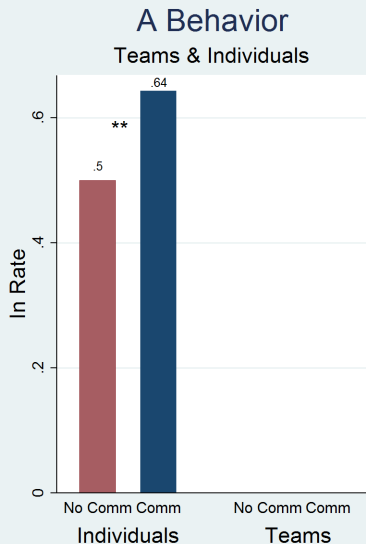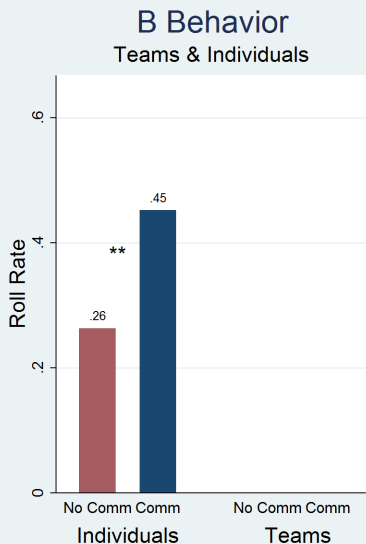
EXPERIMENTAL DESIGN

- 5 rounds
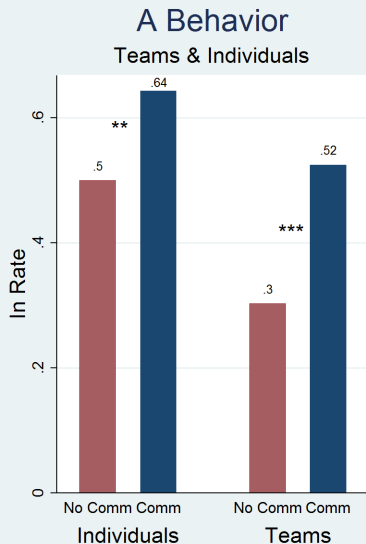 - Fixed roles as either A or B
  - Perfect stranger matching
  - No feedback between rounds

- Team implementation
  - Two-person teams
  - Continuous chat within a team
  - Had to agree on all decisions and messages

- Communication implementation
  - Pre-play messages

A Behavior
Teams & Individuals

B Behavior
Teams & Individuals

A Behavior
Teams & Individuals

B Behavior
Teams & Individuals

RESULTS: EFFECT OF COMMUNICATION

INDIVIDUALS

- Result 1a: Communication increases individuals' trust.
- Result 1b: Communication increases individuals' trustworthiness.

TEAMS

- Result 2a: Communication increases teams' trust.
- Result 2b: Communication *does not* increase teams' trustworthiness.

What type of communication facilitates cooperation?

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	Individuals	Teams	p-value	Example
Strong Promise	61%	59%	(0.61)	"We will choose ROLL"
Weak Promise	12%	19%	(0.065)	"It would be wise to choose In"
Empty Talk	6%	5%	(0.75)	"Hi!"
No Message	21%	18%	(0.38)	

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Teams and individuals use communication to the same strategic purposes.

How does communication increase trust for A individuals and teams?

IN RATES: Conditional on Message Received

	Individuals	Teams
Strong Promise	75%	
Other Message	48%	
No Communication	50%	

How does communication increase trust for A individuals and teams?

IN RATES: Conditional on Message Received

	Individuals	Teams
Strong Promise	75%	57%
Other Message	48%	46%
No Communication	50%	30%

PROMISES & TRUST

How does communication increase trust for A individuals and teams?

IN RATES: Conditional on Message Received

	Individuals	Teams
Strong Promise	75%	57%
Other Message	48%	46%
No Communication	50%	30%

Result 3: Both A individuals and A teams are more likely to trust Bs and choose In after receiving a Promise relative to another message or to No Communication.

How does communication increase trustworthiness for B individuals but not B teams?

ROLL RATES: Conditional on Message Sent

	Individuals	Teams
Strong Promise	52%	
Other Message	35%	
No Communication	26%	

PROMISES & TRUSTWORTHINESS

How does communication increase trustworthiness for B individuals but not B teams?

ROLL RATES: Conditional on Message Sent

	Individuals	Teams
Strong Promise	52%	26%
Other Message	35%	24%
No Communication	26%	21%

How does communication increase trustworthiness for B individuals but not B teams?

ROLL RATES: Conditional on Message Sent

	Individuals	Teams
Strong Promise	52%	26%
Other Message	35%	24%
No Communication	26%	21%

Result 4: B teams and individuals are equally likely to send a promise, but B teams are significantly less likely than individuals to keep their promises.

- One benefit of studying teams is that we gain access to additional decision data
- Team chat provides a window into decision making
- Compare spoken considerations with theories in the literature
  - Role of messages
  - "Altruism"
 - Moral costs

DO A'S CONSIDER THE MESSAGE?
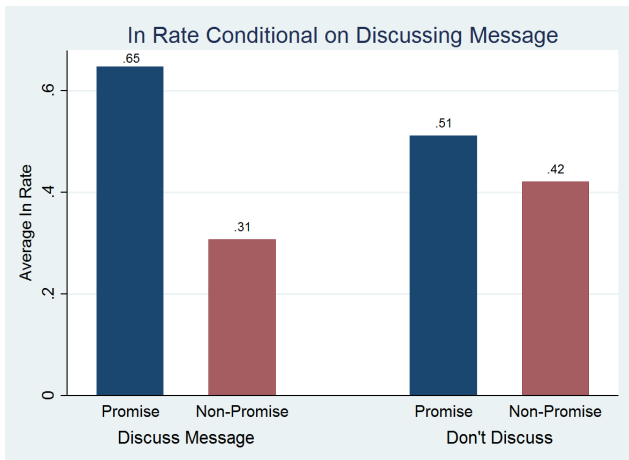
"Let's see what they say. If they say they're going to roll, we go in. If they don't say anything I think we go out."

DO A'S CONSIDER THE MESSAGE?

In Rate Conditional on Discussing Message
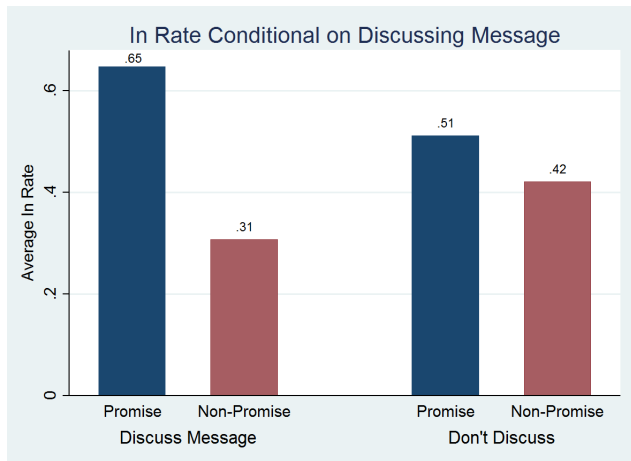
Observation: For teams that do discuss the message, it seems as though Promises do raise their expectations and increase their subjective expected profit from choosing In.
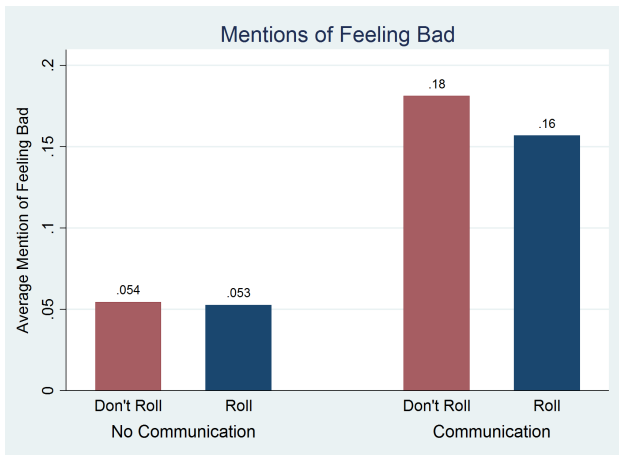
DOES FEELING BAD LEAD TO CHOOSING ROLL?
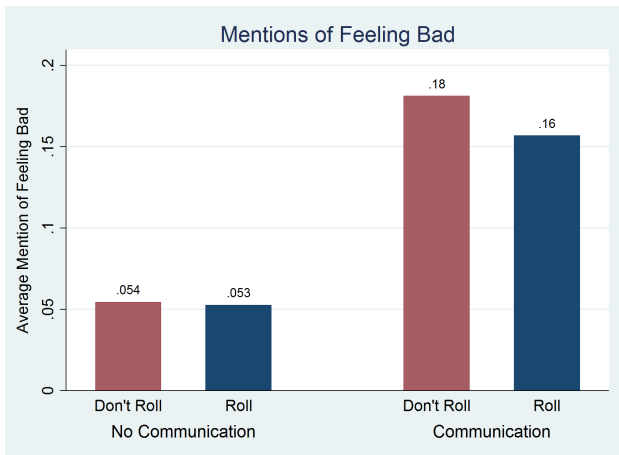
No Communication: *"Let's not roll every time... We're the worst."*
Communication: *"I almost feel bad saying we promise. Almost."*

DOES FEELING BAD LEAD TO CHOOSING ROLL?

The presence of communication increases mentions of feeling bad, but feeling bad does not drive actual decisions.

SUMMARY OF RESULTS

- Replicate findings that communication increases cooperation for individuals
- Teams and individuals receiving non-binding communication respond in the same way
    - However, teams are much less likely to follow through after making a commitment
- Communication does increase instances of statements of "feeling bad," but this does not translate into higher trustworthiness