

Workshop on "Measuring the Tricky Things"

# Cultural Impediments to Learning to Cooperate

An experimental study of high- and low-caste men in rural India

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Player's choice

*Be independent*

*Try to cooperate*

*Be independent*

Small gain

**Big loss**

*Try to cooperate*

Small gain

Large gain

Partner's choice

Player's choice

*Be independent*

*Try to cooperate*

*Be independent*

1, 1

1, -3

*Try to cooperate*

-3, 1

4, 4

Partner's choice

Net returns

Player's choice

*Hunt hare*

*Hunt stag*

*Hunt hare*

1, 1

1, -3

*Hunt stag*

-3, 1

4, 4

Partner's choice

		Player's choice	
		<i>Hunt hare</i>	<i>Hunt stag</i>
Partner's choice	<i>Hunt hare</i>	1, 1	1, -3
	<i>Hunt stag</i>	-3, 1	4, 4

# How do people arrive at the efficient convention?

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By converging on expectations that they will both try to cooperate

# Among subjects in the US

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Fixed pairs of individuals

“are almost assured to [quickly]  
coordinate on the efficient equilibrium”

Van Huyck, Battalio, and Beil, 1990

Knez and Camerer 1994

Weber 2006

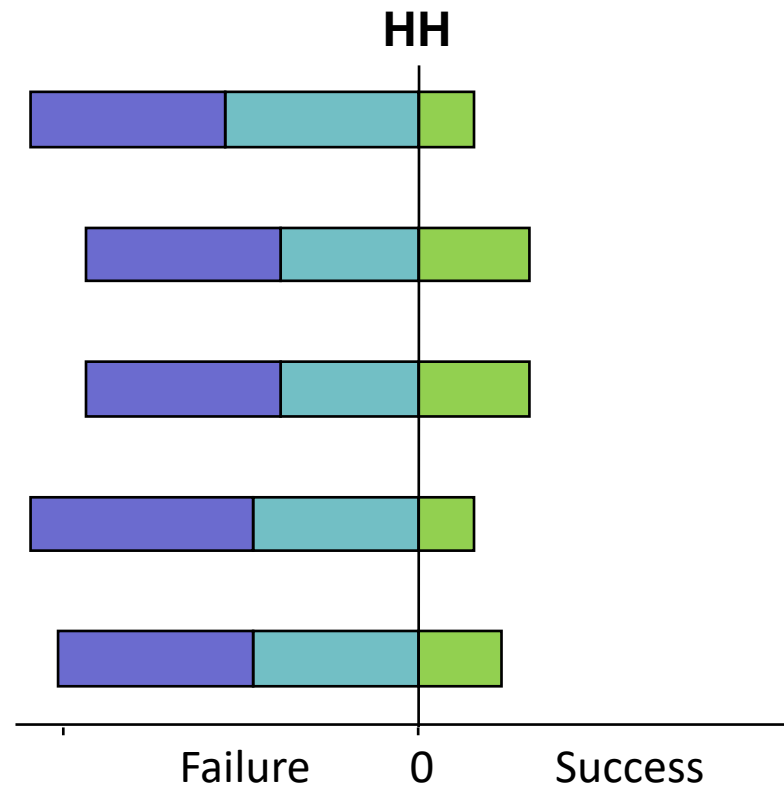
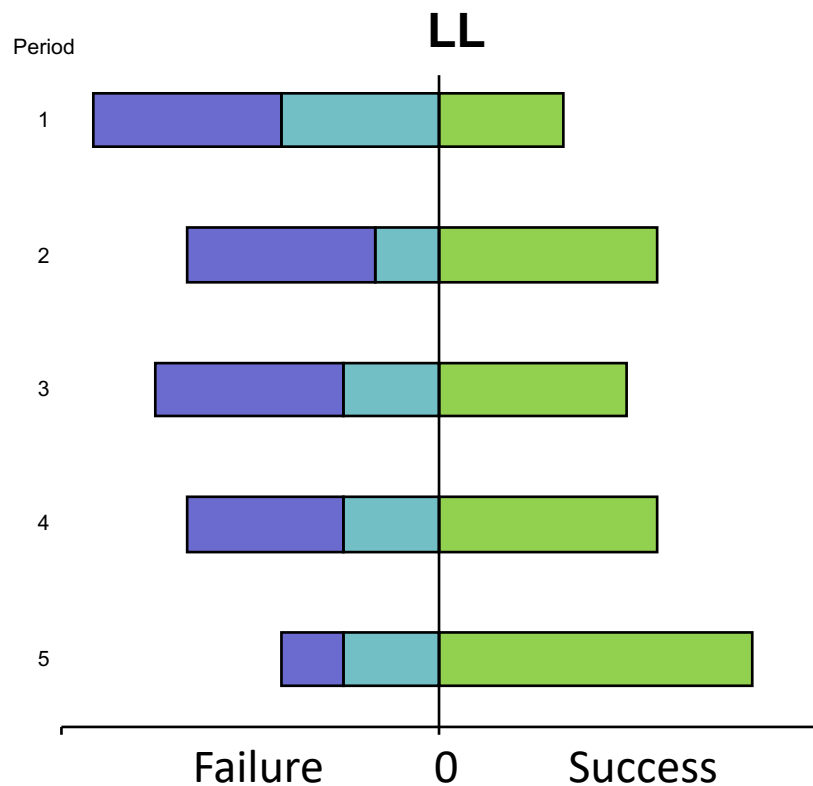


# Our cross-cultural findings violate this

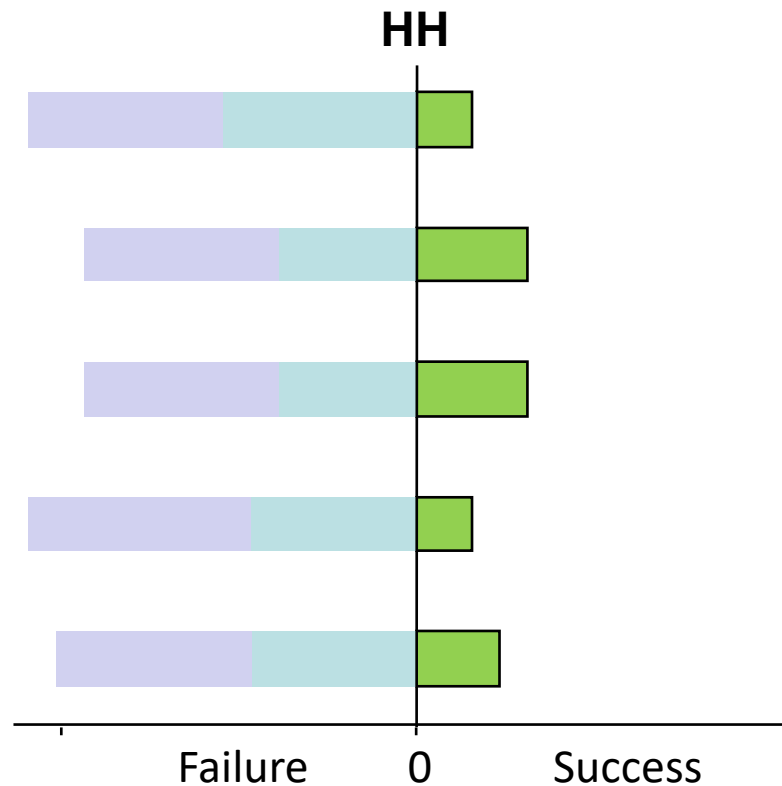
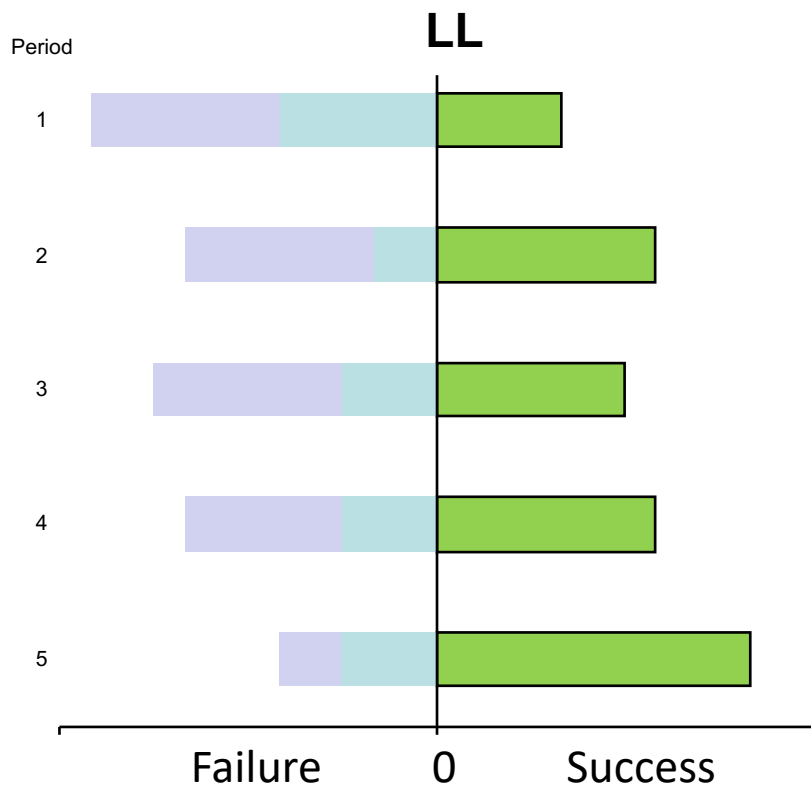
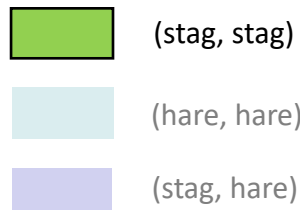
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- In India, most low-caste men can do it, but
- Most high-caste men do not

# In periods 1-5, cooperation steadily grows in LL, but not in HH

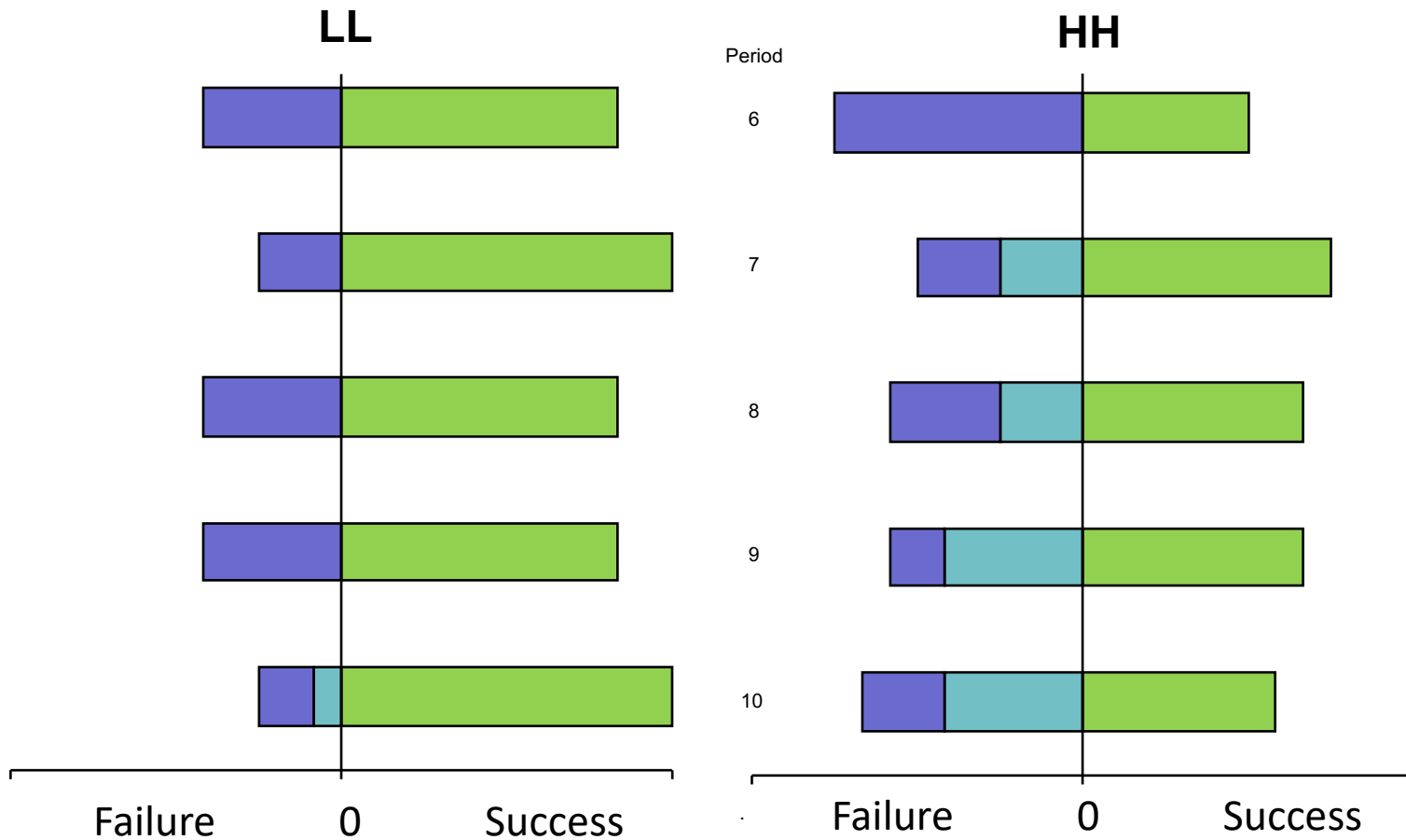


# In periods 1-5, cooperation steadily grows in LL, but not in HH



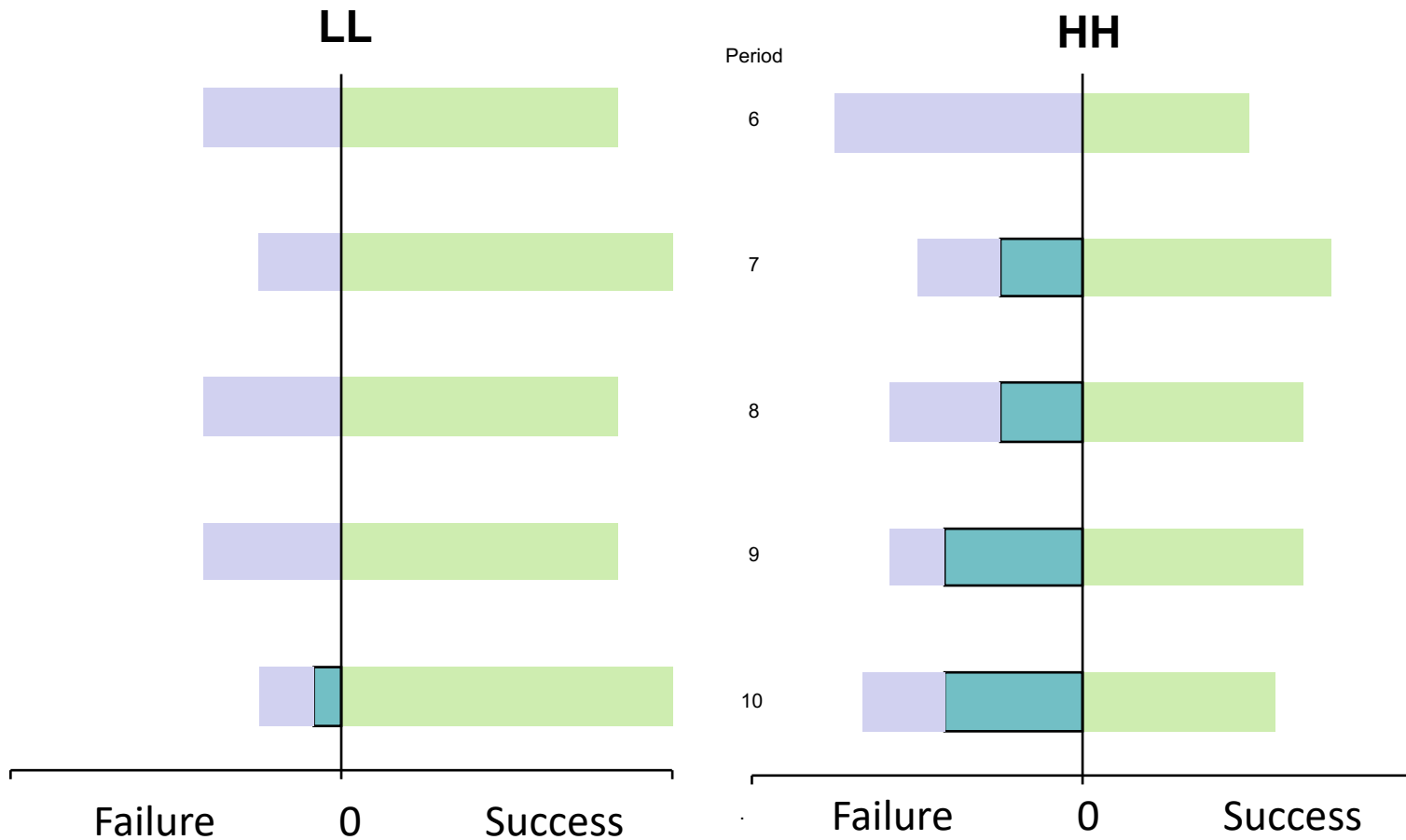
# In periods 6-10, LL $\rightarrow$ (stag, stag) but many HH $\rightarrow$ (hare, hare)

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# In periods 6-10, LL $\rightarrow$ (stag, stag) but many HH $\rightarrow$ (hare, hare)

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# When and why does H's behavior diverge from L's ?

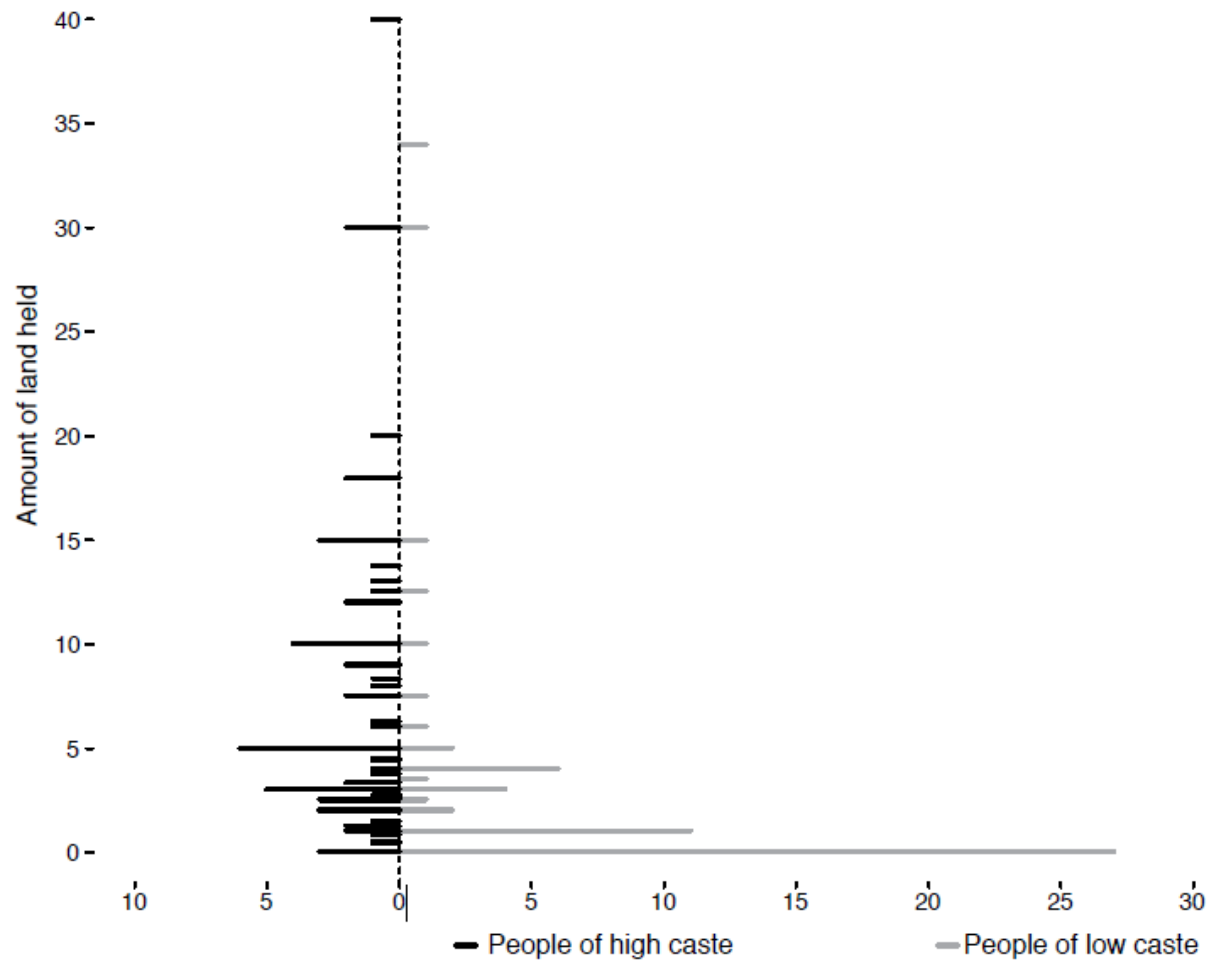
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With controls, regress “Play Stag” on caste

- in periods 1 and 6
- in all other periods conditional on play in the preceding period

# Distribution of land-holding by H and L subjects

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# Robust effect of caste on the response to the loser's payoff—

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- Controlling for wealth proxies and education
- Controlling for subcaste
- Adding interaction effects
- Running separate regressions for those in mud huts vs brick houses.

# Hypothesis:

H's culture causes H to perceive the loss as a wrong. He is

“brave, mettlesome, and very quick to perceive and resent an insult. It is part of his code that a slight to his prestige should be avenged”

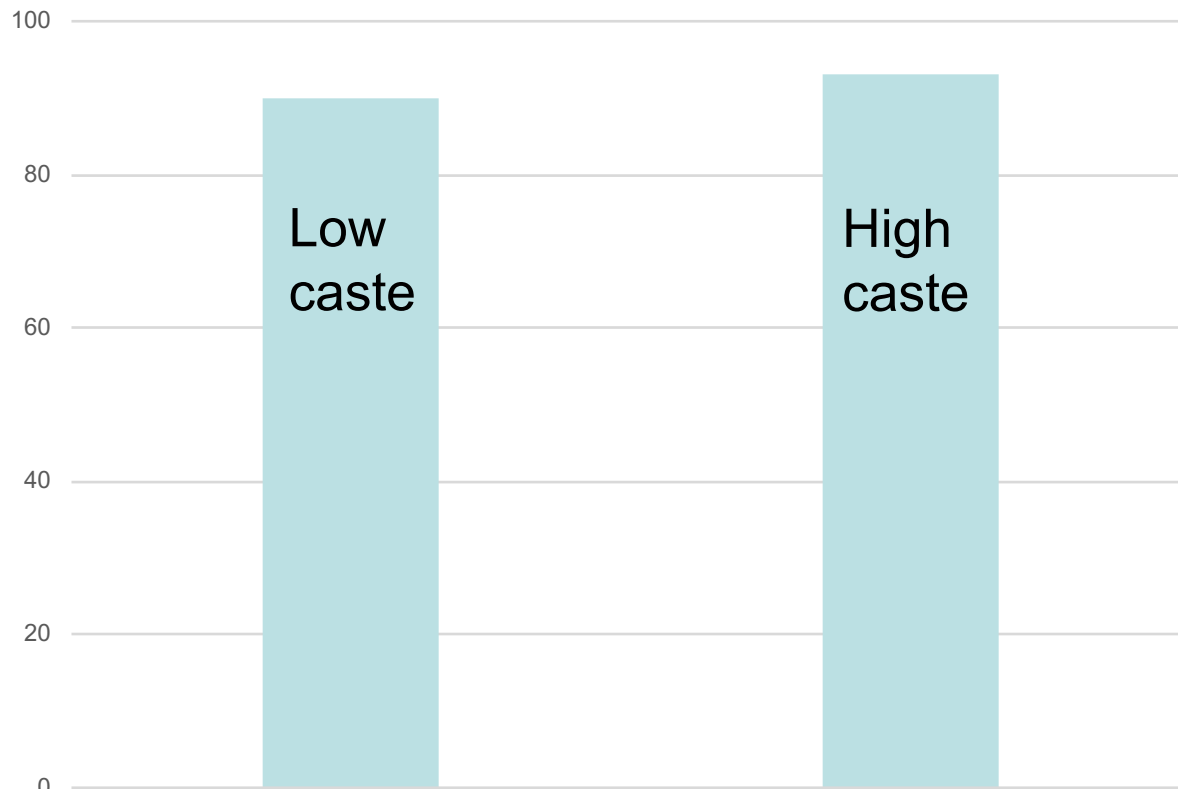
Hitchcock, 1957

# Survey on retaliation

Control vignette: a known robber robs a home.

Was the victim justified to beat the thief and call the police?

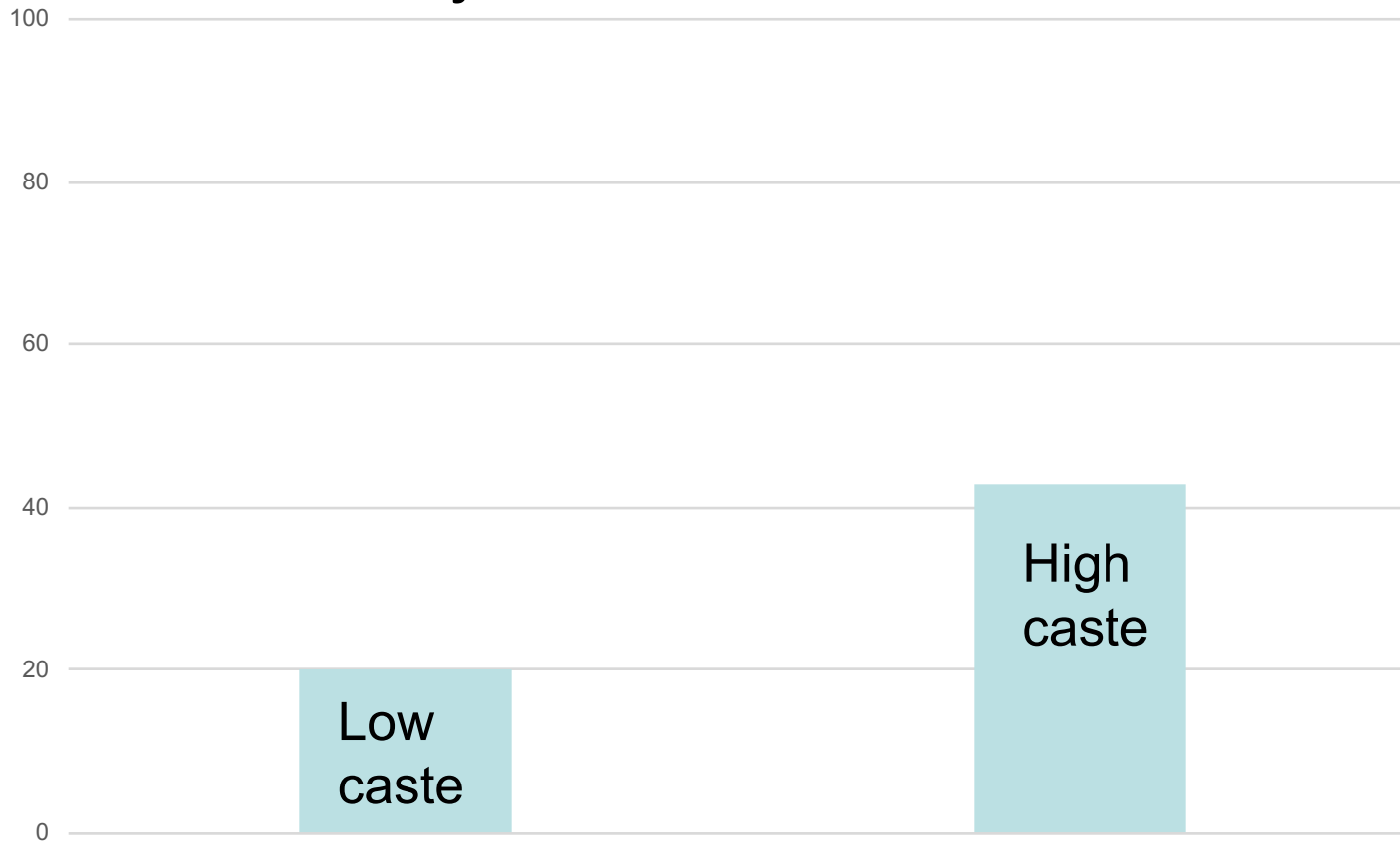
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All other vignettes entail ambiguity in the intent to impose a harm—

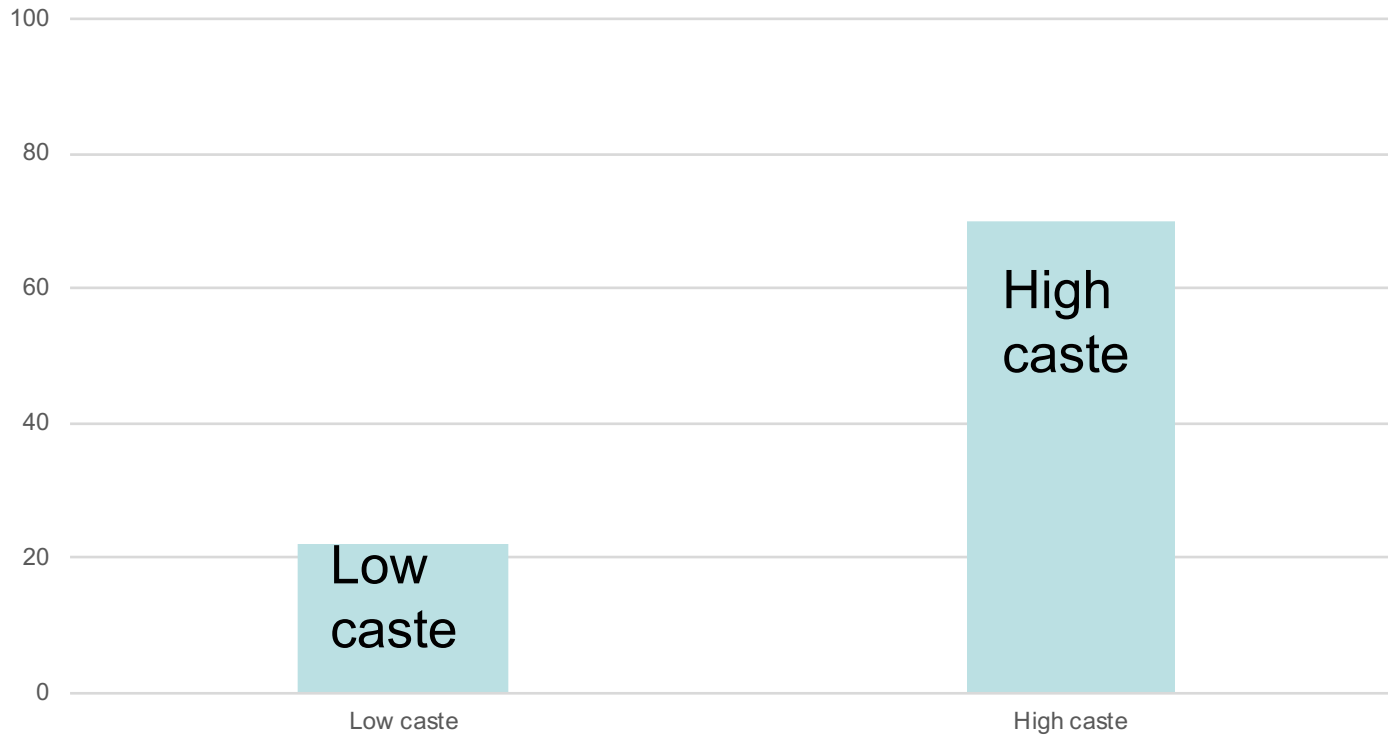
Vignette 1: Letting cattle graze on another's field

Was the victim justified to beat the thief and call the police?



# Vignette 4. An inter-caste marriage

Was the victim justified to beat the thief and call the police?



What would you have done if you were the wronged party?

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H more than twice as likely as L to say they'd respond aggressively

# Examples of responses

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## **Aggressive:**

“I would do the same [i.e. beat him violently] because I lost my honor.”

“I would do tit for tat: otherwise people will think I am weak.

## **Non-aggressive:**

“I would talk and find an agreement”

“I would deal with it peacefully”

57% of H mentioned *izzat* (“male honor,”) compared with 27% of L, but all but one of these response was to inter-caste marriage

# Ethnographic evidence on revenge-taking



# High-caste masculinity (Chowdhry 2015)

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“Possession and control of land, money, and women is associated with *izzat*...

A defining characteristic of masculinity  
...has been the concept of revenge...

[Males who are L] are not considered men at all  
by upper caste men...

[Even the poorest sections of H] claim to share the  
masculine attributes of their higher-class members”

--which may explain why...

# ...Many more H in mud huts than in brick houses retaliate in the game

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Type of player	Percentage points less likely than a player in LL to play Stag after getting the 'loser's payoff'
Lives in a mud-hut	-72
Lives in a brick house	-38

# Black sheep effect (Sankaran et al. 2017)

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H expect other H (but not L) to act morally

They devalue H & punish them if they do not (the *black sheep effect*)

This explains why revenge by H is more common in HH pairs than HL pairs



# Dependent variable: Probability of playing Stag (relative to a player in LL)

	Initial period		Preceding outcome was:						
			(Stag, Stag)		(Stag, Hare)		(Hare, Stag)		(Hare, Hare)
<b>HH</b>	-0.135	-0.135	0.0194	0.0303	<b>-0.364**</b>	<b>-0.402**</b>	-0.192	-0.140	-0.233
	(0.0735)	(0.0890)	(0.0466)	(0.0385)	(0.110)	(0.115)	(0.107)	(0.123)	(0.190)
<b>H in LH</b>	-0.101	-0.0947	-0.000367	0.00553	<b>-0.126</b>	<b>-0.173</b>	- 0.201 *	-0.128	-0.0935
	(0.102)	(0.108)	(0.0568)	(0.0620)	(0.129)	(0.131)	(0.0958 )	(0.129)	(0.217)
<b>L in LH</b>	0.0530	0.0984	0.0247	0.0116	0.0431	0.0673	-0.191	-0.130	0.0320
	(0.0882)	(0.0973)	(0.0365)	(0.0387)	(0.119)	(0.117)	(0.117)	(0.130)	(0.169)
<b>Type</b>		<b>0.356***</b>		<b>0.0969*</b>		-0.0176		0.177	
		(0.0547)		(0.0443)		(0.0647)		(0.120)	
<b>Land</b>		0.00592		-0.00154		0.00558		-0.00187	
		(0.00405)		(0.00241)		(0.00486)		(0.00653)	

# Male prison survey—H commit most of the violent crimes

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	Proportion of crime committed by H
Murder	84%
Assault	61%
Theft	26%

# Return to the question

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After getting the loser's payoff, why is H less likely than L to continue trying to cooperate?

# Return to the question

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After getting the loser's payoff, why is H less likely than L to continue trying to cooperate?

H interpret the loser's payoff as a wrong (if committed by an H) that warrants punishment.

Poor H are particularly likely to take revenge

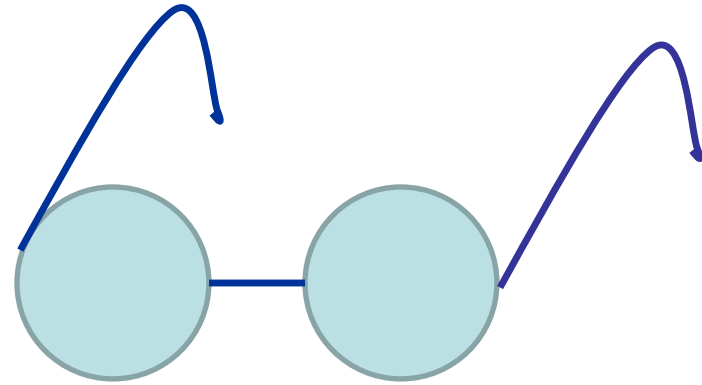
# How does culture influence conceptualization in learning to cooperate?

- H learn to cooperate much less often because they retaliate against coordination failure
- Economic variables, trust, and self-efficacy don't explain it
- Our survey results suggest H are more concerned than L with honor, status, and punishing particularly H who “wrong” them
- Ethnographic evidence predicts differences in retaliation after the loser's payoff:
  - ✓  $H > L$
  - ✓  $HH > HL$     *black sheep effect*
  - ✓  $H \text{ in mud huts} > H \text{ in brick houses}$



# A metaphor of a task for the social scientist

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“When we want to know about spectacles, we train an oculist and expect him to be able to write out the formula for any lenses we bring him.

Some day no doubt we shall recognize that it is the job of the social scientist to do this for the nations of the contemporary world.”

Ruth Benedict, 1946