



International Cooperation

POL 3: INTRO TO IR

I. Cooperation

- ▶ Despite anarchy, cooperation is prevalent
 - ▶ Cooperation: states working together to achieve common interests when they also have conflicting interests
- ▶ Interdependence in international system creates *strategic interaction*
 - ▶ The effect of Actor A's action depends upon Actor B's action
- ▶ States' utility is dependent upon others' actions
 - ▶ Utility: benefit received from outcome
 - ▶ Two ways to look at utility

Strategic interaction example: *A coordination game*

- ▶ Problem: kids are asleep and we need to pick out a movie to (re)watch
- ▶ 2 players: Player 1 = me; Player 2 = my wife
- ▶ 2 strategies: “B” = *Braveheart*, and “S” = *Before Sunrise*
- ▶ 4 outcomes:
 1. both choose “B” (B,B)
 2. both choose “S” (S,S)
 3. 1 choose “B”, 2 choose “S” (B,S)
 4. 1 choose “S”, 2 choose “B” (S,B)
- ▶ Payoffs and preference ordering:
 - ▶ *Player 1*: (B,B) = 4, (S,S) = 3, (B,S) = 2, (S,B) = 1; (B,B) > (S,S) > (B,S) > (S,B)
 - ▶ *Player 2*: (S,S) = 4, (B,B) = 3, (S,B) = 2, (B,S) = 1; (S,S) > (B,B) > (S,B) > (B,S)

Payoff Matrix: coordination game

		Player 2: My Wife	
		B	S
Player 1: Me	B	4, 3	2, 2
	S	1, 1	3, 4

- ▶ Solve the game = best response analysis
 - ▶ Look for “equilibrium” or “equilibria”

II. The Prisoner's Dilemma

- ▶ Prisoner's dilemma captures cooperation problems common in IR
- ▶ The scenario:
 - ▶ Two prisoners
 - ▶ Two strategies: "C" cooperate (silent); "D" defect (speak)
 - ▶ Four outcomes:
 - ▶ If each speak: they both receive 1 year in prison
 - ▶ If each are silent: they both receive 1 month in prison
 - ▶ If one speaks, and one is silent: one goes free, other gets 5 years

Payoff Matrix: cooperation game

		Prisoner 2:	
		C	D
Prisoner 1:	C	3, 3	1, 4
	D	4, 1	2, 2

- ▶ Solution: (D,D) is single equilibrium
 - ▶ Incentive to defect exists in prisoner's dilemma (cooperation game)

The Prisoner's Dilemma

- ▶ PD used to explain defection in international system
 - ▶ Example: arms control
 - ▶ *Players*: India (player 1) and Pakistan (player 2)
 - ▶ *Strategies*: “C” (no nukes); “D” (nukes)
 - ▶ *Outcomes*:
 - ▶ C,C: agree to restrain from nukes
 - ▶ D,D: both proliferate
 - ▶ D,C: India proliferates, Pakistan restrains
 - ▶ C,D: India restrains, Pakistan proliferates

Payoff Matrix: cooperation game

		Player 2: Pakistan	
		C	D
Player 1: India	C	3, 3	1, 4
	D	4, 1	2, 2

- ▶ Solution: (D,D) is single equilibrium
 - ▶ Incentive to defect exists in prisoner's dilemma (cooperation game)

Activity #1: Golden Balls

- ▶ Watch setup of game.
- ▶ Based upon the payoffs, fill in the PAYOFFS in the following matrix
 - ▶ i.e. Which box is most preferred for *Player 1*?

		Player 2:	
		C	D
Player 1:	C		
	D		

Activity #1: Golden Balls

		Player 2:	
		C	D
Player 1:	C	50, 50	0, 100
	D	100, 0	0, 0

- ▶ Even more incentive to defect (if one cares about relative gains)

The Prisoner's Dilemma

- ▶ Key features of the PD
 - ▶ Conflicting interests outweigh common interests
 - ▶ Each player has incentive to defect
 - ▶ Both would be better if neither defected

- ▶ Note: this is the realists view of cooperation problems

Activity #2

All about Lincoln

- ▶ Two volunteers...
- ▶ Payoffs:
 - ▶ D,C: \$5.00, \$0.00
 - ▶ C,C: \$2.50, \$2.50
 - ▶ D,D: \$0.50, \$0.50
- ▶ Draw a matrix and fill in the payoffs
 - ▶ What is the preference ordering?

III. Solving Cooperation Problems

- ▶ Neoliberals use the setup of PD, but emphasize solutions
 - 1) Repeated play allows for reciprocity (iterated games)
 - 2) Bring in multiple issues (issue linkage)
 - Helps with reciprocity
 - 3) Information about others' action
 - Information helps to correctly reciprocate

- ▶ States do the enforcing, but institutions help by:
 - 1) Lengthen shadow of future
 - 2) Facilitate issue linkage
 - 3) Monitoring and providing information

Repeated Prisoner's Dilemma with Issue Linkage

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Player 1:

		Player 2:	
		C	D
C	\$3, \$3	\$0, \$5	
D	\$5, \$0	\$1, \$1	

Issue #1

Linked to another issue:
Game is played 3 times

		Player 2:	
		C	D
C	\$3, \$3	\$0, \$5	
D	\$5, \$0	\$1, \$1	

Issue #2

IV. Constructivist views

- ▶ Constructivists challenges independent identities of actors
- ▶ Game is defined by the identity structures of players