PSC 102: Intro to International Politics

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International Institutions

Introduction

- Three goals for this lecture
  - Introduce some terms and concepts
  - Present epiphenomenal critique of institutions
  - Discuss when and how they can solve problems

Terminology

International Institution

A written agreement between states (e.g., Geneva Convention, Montreal Protocol, North American Free Trade Agreement) or an intergovernmental organization (United Nations, World Trade Organization, International Monetary Fund).

Epiphenomenal

Characteristic possessed by anything that is secondary to (i.e., caused by) some other phenomenon.

Epiphenomenal?

- If "FB official" couples cheated less, what would that imply?
- FB official $\leftarrow$ strong commitment $\rightarrow$ less cheating
- Most signatories to international agreements comply with the terms of those agreements most of the time
- That there is a pattern of association is not in dispute
- Whether that reflects $x \rightarrow y$ or $x \leftarrow z \rightarrow y$ is

Facilitating Coordination

- Theory
  - Revisit Coordination Game from Lecture 9
  - Suppose 1 & 2 sign a treaty committing them to r
  - Nothing prevents them from nonetheless playing b
  - But what do you suppose happens to p_1 and p_2?
- Examples
  - International Organization for Standardization
  - International Telecommunication Union
  - International Civil Aviation Organization

Facilitating Collaboration

- Theory
  - Revisit Arms Race model from Lecture 10
  - Suppose 1 & 2 sign a treaty committing them not to build
  - Nothing prevents them from doing so
  - And (build, build) remains the only equilibrium
- Examples
  - Kellogg-Briand Pact
  - League of Nations
  - Kyoto Protocol

A Model of Reassurance

- 1 decides whether to propose an agreement to 2
- If 1 did, 2 decides whether to accept or not
- If agreement reached, both incur cost $\kappa \in (0,1]$
- Proceed to following normal form subgame

	coop	don't
coop	β_1, β_2	e_1, τ_2
don't	τ_1, e_2	0, 0

- Player i knows
  - Value of β_i, e_i, e_j, τ_i, and τ_j
  - $e_i, e_j \in [-1,0)$ and $\tau_i, \tau_j > 0$
  - $pr(\beta_j = \overline{\beta}_j) = \phi_j$ and $pr(\beta_j = \underline{\beta}_j) = 1 - \phi_j$
  - Where $0 < \underline{\beta}_j < \overline{\beta}_j$

Trivial Equilibria

- There exists an equilibrium where pr(coop)$= 0$
  - Only equilibrium when $\overline{\beta}_1 < \tau_1$, $\overline{\beta}_2 < \tau_2$,
  - Everyone knows there is a collaboration problem
- There exists an equilibrium where pr(coop)$= 1$
  - Only equilibrium when $\underline{\beta}_1 > \tau_1$, $\underline{\beta}_2 > \tau_2$,
  - Everyone knows there is not a collaboration problem

Reassurance Equilibrium

- In the most interesting equilibrium
  - 1 proposes agreement to 2 iff 1 is blue
  - 2 accepts iff 2 is also blue
  - Neither player cooperates unless agreement was reached
  - Only exists when $\underline{\beta}_1 < \{\kappa, \tau_1\} < \overline{\beta}_1$ and $\underline{\beta}_2 < \{\kappa, \tau_2\} < \overline{\beta}_2$
  - The blue types intrinsically willing to stay at (coop, coop)
  - But w/o institutions, might not have gotten there

Key Condition

- i cooperates iff $E(u_i(c)) \geq E(u_i(d))$
- $\Rightarrow \phi'_j(\beta_i) + (1 - \phi'_j)(e_i) \geq \phi'_j(\tau_i) + (1 - \phi'_j)(0)$
- $\Rightarrow \phi'_j\beta_i + e_i - \phi'_j e_i \geq \phi'_j\tau_i$
- $\Rightarrow e_i \geq \phi'_j\tau_i - \phi'_j\beta_i + \phi'_j e_i$
- $\Rightarrow e_i \geq \phi'_j(\tau_i - \beta_i + e_i)$
- Or $\phi'_j \leq \hat{\phi}_j$ if $\tau_i - \beta_i + e_i > 0$ and $\phi'_j \geq \hat{\phi}_j$ if < 0
- Where $\hat{\phi}_j \equiv \frac{e_i}{\tau_i - \beta_i + e_i}$
- In Reassurance equilibrium, $pr(\beta_j = \overline{\beta}_j | agreement) =$
$$\frac{pr(agreement|\beta_j = \overline{\beta}_j)\phi_j}{pr(agreement|\beta_j = \overline{\beta}_j)\phi_j + pr(agreement|\beta_j = \underline{\beta}_j)(1-\phi_j)} = \frac{1 \cdot \phi_j}{1 \cdot \phi_j + 0 \cdot (1-\phi_j)} = 1$$

Cooperation that Would Not Otherwise Occur

- Let $\underline{\beta}_1 = 0.1$, $\overline{\beta}_1 = 2$, $\kappa = 0.5$, $\tau_1 = 0.4$, $e_1 = -1$, and $\phi_1 = 0.4$
- And let everything be the same for 2
- For blue types, $\hat{\phi}_1 = \hat{\phi}_2 = \frac{-1}{1-2-1} = 0.5$
- In absence of agreements, neither side would trust the other enough to cooperate
- But with agreements, mutual cooperation occurs if both blue
- Red types unwilling to sign in hopes of tricking blue types
- Implies that effective institutions must entail moderate costs