

Objectives: To examine how international institutions facilitate cooperation.

1 Key terms

- iterated prisoner's dilemma (IPD)
- comparative statics
- payoff stream
- efficient breach
- discount rate, δ
- reputation
- grim trigger
- group punishment

2 Key ideas

Question: Why do we have international institutions?

Answer: Many international political phenomena are like prisoner's dilemmas. Cooperation in PD can be induced by repetition and punishment. International institutions help meet these needs by lengthening the game, monitoring and providing states information, and facilitating "efficient breach."

Question: Under what conditions is cooperation more likely to occur in an IPD setting, where the conditional retaliation strategy is grim trigger?

Answer: (1) Assume $\delta \in (0, 1)$. As δ increases (i.e., the more patient we are in receiving future payoffs), cooperation increases. This is because as δ increases, the overall cooperation payoff stream grows in size. A larger δ makes more feasible the condition under which we cooperate: $\frac{C}{1-\delta} \geq T$. Suppose $C = 1$ and $D = 2$. Then, $\frac{1}{1-\delta} \geq 2$. If $\delta = 0.9$, then we would see cooperation because $10 > 2$, but if $\delta = 0.1$, then we would see defection because $1.111 < 2$. From the latter example, we could see that life was better when δ was larger.

(2) As $|D - C|$ decreases (i.e., when we increase the benefits of cooperation or decrease the benefits of defection), cooperation increases. This is because adjusting the size of $|D - C|$ lowers the minimum δ we need to cooperate. Consider the grim trigger NE: $\delta \geq \frac{D-C}{D}$. Now suppose $D = 5$. So: $\delta \geq \frac{5-C}{5}$. If $C = 1$, then cooperation requires $\delta \geq \frac{4}{5}$. That's a high bar for cooperation; you need to be pretty patient for cooperation to work. But if $C = 4$ (so if we increased the benefit of cooperation), then cooperation requires $\delta \geq \frac{1}{5}$. The bar for cooperation is pretty low, so states do not have to be super patient in order to still get the cooperative outcome (yay!).

Question: When information about actor behavior in IPDs is imperfect or incomplete (e.g., the Champagne fairs), how can institutions still facilitate cooperation?

Answer: A desire to have a good reputation can make actors want to behave honestly. Institutions (e.g., the Law Merchant) can serve as an information source and provide a record of an actor's past actions. Actors with a bad reputation can then be punished by members of the community (i.e., group punishment) for violating norms of honesty/cooperation.

3 Additional review questions

- What are some of the alternative explanations for why international institutions exist?
- What is efficient breach, and how does it compare to grim trigger?
- Why do states comply with institutions sometimes but not others?
- Do institutions have power in their own right, or does power belong to the states that made them?