Collective-Action Problems and Other Types of Collective Dilemmas

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Agenda

- Attendance
- Discuss Collective Dilemmas
- Readings for Monday

Questions?

Objectives

- Identify and describe the four different types of collective dilemmas
- Be able to distinguish different types of government institutions

Types of Collective Dilemmas

- Collective-Action Problems
- Prisoner's Dilemma Situations
- Coordination Problems
- Unstable Coalitions

Collective-Action Problems

Public Good: A benefit provided to a group of people such that each member can enjoy it without necessarily having to pay for it, and one person's enjoyment of it does not inhibit the enjoyment of it by others.
Examples: clean air/ water, national defense

Private Good: A product or benefit provided such that its enjoyment can be limited to specific people, and one individual's consumption of it precludes others from consuming it.
Examples: pancakes, freshly brewed coffee

Collective-Action Problems

However, it becomes difficult (if not impossible) to produce a public good without some sort of external enforcer requiring people to contribute anything to it.

Examples: clean dishes, social security, Kyoto protocol

The tendency of people to benefit from a public good without contributing to that public good is called **free riding**.

A **collective-action problem** is any situation in which people are individually better off free riding and enjoying the public good that others produce without contributing toward the production of that public good.

Collective-Action Problems

Therefore, effective enforcement is necessary for the creation of fair systems of payment and ultimately, public goods.

Example: the Internal Revenue Service and government services such as social security.

Prisoner's Dilemma Situations

Another example of a collective-action problem is the **prisoner's dilemma**. This is an interaction between two strategic actors in which neither actor has an incentive to cooperate even though both would be better off if they both cooperated.

Prisoner's Dilemma Situations

Consider an Example:

You and your partner have just been arrested for breaking and entering after committing a string of other robberies. Once at the police station, you are situated in separate rooms with no means of communicating with anyone.

The detective tells you that you are going to jail for breaking and entering. However, he also offers you a deal. If you implicate your partner in this and any other crimes you two are suspected of committing, you can avoid going to jail entirely. Of course this is at the expense of your partner who will have to serve substantial time for all of your collective wrongdoings.

Additionally, your partner has been offered the same deal, so time is of the essence. What do you do?

Prisoner's Dilemma Situations

		Prisoner B	
		Cooperate	Defect
Prisoner A	Cooperate	Both serve short sentences	A serves long sentence, B goes free
	Defect	B serves long sentence, A goes free	Both serve medium sentences

Here, what is good for the group of two is difficult to achieve because of individual temptations.

Prisoner's Dilemma Situations

		Candidate B	
		<u>Cooperate</u>	<u>Defect</u>
	<u>Cooperate</u>	Cheap	Expensive win for B
Candidate A		toss-up	Cheap loss for A
	<u>Defect</u>	Expensive win for A	Expensive
		Cheap loss for B	toss-up

An external authority or a neutral party can enforce cooperation among people who overcome collective-action obstacles.

Coordination Problems

This is a situation in which two or more people are all better off if they coordinate on a common course of action, but there is more than one possible course of action to take.

The inability to come to a decision is oftentime a result of incomplete information or a fundamental disagreement.

This differs from the prisoner's dilemma in that there is only one expected outcome in that instance. There is more than one potential outcome here.

Coordination Problems

Consider an Example:
You and your best friend made plans after your morning class to meet downtown for lunch. You both decided that pizza was preferable but it was unclear which pizza place you would go to.

Lunch time arrives and you try texting and calling your best friend, but to no avail. (She mentioned earlier that her phone is almost dead.) Since you're already downtown, you decide that you must commit to somewhere to go eat in hopes that she has done the same.

Your favorite pizza place is Mellow Mushroom but you know she favors Your Pie. You are willing to forgo your favorite pizza so long as you get pizza and don't have to eat alone. Which restaurant do you go to?

Coordination Problems

		Your BFF	
		Your Pie	Mellow
	Your Pie	Good for BFF	Bad for BFF
You		OK for You	Bad for You
	Mellow	Bad for BFF	OK for BFF
		Bad for You	Good for You

Coordination Problems

Most people are generally indifferent regarding how a decision is reached, so long as one is actually reached. Therefore, governments exist to facilitate the coordination of individuals' behavior.

For example, the federal government had to ultimately decide whether to have motorists drive on the right or left side of the road.

Coordination Problems

Example from American History: The 1912 Presidential Election
After declining to seek a second full term in office, Teddy Roosevelt
offered his support for William Howard Taft. However, after Taft's first
term, Roosevelt decided he should return to the White House. After failing
to win the Republican nomination, he ran as a third party candidate.

This created a rift among Republicans. More conservative members
believed Taft should receive a second term while more progressive
Republicans wanted to see Roosevelt reassume the presidency. This split
the Republican vote in such a way that allowed Woodrow Wilson to
eventually win the election.

Wilson received almost 6.3 million votes, but Roosevelt and Taft combined
for over 7.5 million votes (about 4.1 million and 3.5 million respectively).

Unstable Coalitions

An **unstable coalition** is an instance in which three or more people must make a collective choice from a set of alternatives, but any voting coalition in favor of an alternative can be divided by consideration of another alternative.

Minimum winning coalitions are preferred because they maximize the benefits of those that are a part of the coalition. However, they are most susceptible to **coalition raiding**. This is when members of the losing side convince enough members of the original coalition to switch to their side. Therefore causing the original group to split.

The use of an **agenda setter** could eliminate coalition raiding. An agenda setter is an authority that controls what options are decided on by a group.

Unstable Coalitions

For example, imagine I offered the class 460 bonus points to be distributed among every member of the winning coalition. In order to maximize the number of bonus points received, you strike a deal with 22 other students. This creates a majority agreement in the class where 23 of you receive 20 bonus points each.

However, one of the 22 students who was left out of the original deal convinces you to switch sides by giving you five of his bonus points. This then creates a new winning coalition where you receive 25 bonus points, he receives 15 bonus points, and 21 other students receive 20 each.

Unstable Coalitions

Then, the 22 students who were in the original winning coalition but now are receiving no bonus points offer you a new deal. They will each give you one of their bonus points if you come back to their side. This then creates a third winning coalition where you receive 42 bonus points and the other 22 students each receive 19 bonus points.

This continues on and on with new coalitions being formed and raided by even newer coalitions. Ultimately, I step in and force a vote on a deal in which everyone receives 10 bonus points with a majority vote. Failure to achieve a majority vote results in no one receiving any bonus points.

Principal-Agent Problems

This is an instance in which one actor, a principal, contracts another actor, an agent, to act on the principal's behalf, but the actors may not share the same preferences, and the principal lacks the means to observe all of the agent's behavior.

This is not technically a collective dilemma as it is not centered around a conflict between collective goals and individual incentives.

Nonetheless, it is a problem commonly found in American politics.

Principal-Agent Problems

Consider a simple example:

You hear a strange clicking coming from the engine of your car. You decide to take it a mechanic to have it looked at. The mechanic then informs you that your vehicle will require extensive work, but that he can have it taken care of with relative ease. Of course only in exchange for a substantial sum of money.

But since you are not well versed in machine engines and were unable to watch the mechanics every action, you cannot be sure he addressed the issue fairly or properly. Also, the mechanic knows you do not know how to fix the car yourself and that you cannot watch him the entire time, and therefore knows there is potential for betraying the relationship.

In order to nullify the principal-agent problem, the government would need to disincentivize violating the principal's trust by giving him or her a means for retaliating. Suing the mechanic in this situation.

Types of Government Institutions

Authoritarianism refers to a political system in which there is no expectation that the government represents the people, and the institutions of government do not give the people a direct voice who will lead.

Dictatorships are authoritarian political systems in which sovereign power is vested in one individual.

A **monarchy** is a political system in which a ruler (usually king or queen) is chosen by virtue of being the heir of the previous ruler.

An **oligarchy** is a political system in which power resides in a small segment of society.

Types of Government Institutions

A **one-party state** is a political system in which one party controls the government and actively seeks to prevent other parties from contesting for power.

In a modern **democracy**, government officials reach office through popular elections. This system also provides basic protections of civil rights and liberties.

A **republic** is a political system in which public officials are chosen to represent the people in an assembly that makes important policy decisions.

Questions?

For Next Time...

Read each of the following:

- The Declaration of Independence
- The Articles of Confederation
- The Constitution (including the Bill of Rights and additional amendments).