

Simulating Two-Level Negotiations

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International negotiations can be modeled as a two-level process that involves competing interests within and between groups. This modified simulation of the classic prisoner's dilemma introduces students to the negotiation process and challenges them to consider how different decision structures can affect outcomes. Students fill both leadership and negotiation roles and gain an active learning experience that exposes them to important international relations concepts. All of the instructions, handouts, and materials are included to provide instructors of international relations or comparative politics with a resource that can be utilized with groups of varying size, ability, and composition.

Keywords: negotiation, simulation, democracy, prisoner's dilemma

International negotiation is a complex process that is often discussed at an abstract level in introductory courses to international relations. Using simulations of this process can place the relevance of key concepts discussed in international relations theory, such as absolute versus relative gains, into perspective for the participants. Role playing also increases the participant's awareness of these complexities. The prisoner's dilemma has often been used as a tool to simulate international bargaining as the game has integral commonalities with the international system. Both situations lack a sovereign to enforce agreements. Therefore, the dominant strategy for the individual or state is often to defect. For example, the U.S. benefits from other nations signing the Kyoto Protocol even though America does not have to reduce emissions or spend more on protecting the environment. Defecting from the Kyoto treaty while other developed nations cooperate has the greatest benefits and the least costs for the United States.

In the classic, single play or one-shot, prisoner's dilemma (PD) cooperation is highly unlikely as neither participant knows whether they can trust the other party in the game. In an iterated prisoner's dilemma (IPD) cooperation becomes more likely as groups know that interaction will occur in the future. This "shadow of the future" encourages groups or individuals to cooperate (Axelrod 1984). This simulation is a finite IPD. It has been utilized in primary schools and high schools as well as in undergraduate courses at both Florida State University and the University of Connecticut. What makes this simulation unique is the intergroup nature of the dilemma as well as the inclusion of diplomats and the incorporation of various regime types. Students gain direct experience with small group decision making in a democracy or an authoritarian regime.

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Instructor's Notes

This simulation is very easy to use in classes of all sizes. The classic problem that the simulation represents is called the “prisoner’s dilemma.” The setting of the prisoner’s dilemma involves two prisoners who committed a crime, who are being interrogated in two separate rooms:

- These prisoners do not know what the other prisoner will do or say.
- If both prisoners refuse to talk, then they will both receive minimal sentences.
- If one prisoner squeals and the other refuses to talk, the cooperating prisoner will be set free while the other prisoner will receive a maximum sentence.
- If both prisoners squeal on each other, then they both will receive moderate sentences.

Setup

The class is divided into two teams. The team sizes can vary. Ideally the teams include seven to 15 people. Small groups (less than 7) tend to succumb to group think whereas large groups (larger than 15) often exclude people from the process. Each team must choose or be assigned a leader. The leader then appoints a negotiator who bargains with the opposite team. *The negotiator is the only person who can speak to the other team.* In addition, the negotiator may only speak with the opposite team’s negotiator. The role of the negotiator is to convey the will of their team’s leadership and to report back to their leader about the other team’s position. In between rounds, the negotiators will meet to discuss their team’s intentions. After this meeting, they will report back to the team and the leader.¹

The instructor makes one team a democracy and one an authoritarian group or dictatorship. The democratic team votes for their leader while the instructor appoints the leader of the dictatorship.² In addition, the democratic team has their leader appoint a diplomat or diplomatic team (the negotiator(s)) that must be approved by the congress, which is the rest of the team. This simulates the United States’ process for choosing ambassadors and diplomats. In contrast, the dictator can choose their negotiating team on their own without the consent of their teammates.

The teams must have separate rooms or at least spaces for them to discuss policy. The only player from Team A who can go to Team B’s space is the negotiator or negotiating team. However, it is best for the negotiators to meet in a third location to simulate reality closely (i.e. Dayton, Helsinki, and Camp David). The object of the game is to reach 3,000 points. The first team to reach 3,000 will receive a pizza, ice cream, or another finite resource. In the past, I have had the department or institution donate a prize. Alternatively, the instructor may assign a quiz grade for participation in the simulation. The winning team receives an A while the losing team receives a C. If the teams tie, then both receive a B.³ The dictator also has the

¹Boyer et al. (2004) and Florea et al. (2003) identify different negotiating styles that students in simulations of international negotiations often use. These styles include: a collaborative approach, a conflictual style, self-interested bargaining, assertive behavior, reciprocal negotiations, and a creative approach. Through their project that looks at middle and high school student-negotiating behavior, Boyer et al. and Florea et al. found that students use a mixture of these roles, gender affects their style, and students adjust their style depending on their belief regarding the efficacy of the approach.

²The instructor should attempt to find a dominant personality as the dictator or authoritarian leader. In most college courses, an instructor should be able to locate a few of these types of personalities. Through some amount of trial and error, I have found that conducting a random draw for the leader may lead to an accommodating personality as the leader. This person may too easily succumb to the will of the more dominant personalities in the group.

³Another way to make the stakes of the simulation more dramatic is to provide extra credit points that will be added to the most recent exam (or some other assignment) for the winning team. Making their grades the object of negotiation provides a more relevant prize that leads to more heated negotiations. I have found that providing extra credit for the prize is preferable to assigning a quiz grade. Competition will be intense for either, but there are less angry feelings when students lose extra credit as when they receive a poor grade.

power to distribute the political goods obtained from the outcome of the simulation to their constituents. If, for example, the team wins a total of 30 extra credit points, the dictator is able to distribute these points to the constituents. In contrast, the democratic group splits the political goods among its members equally.⁴ The prize must be limited and clearly explained. If students believe that they will receive the same prize regardless of the outcome, they will become less interested and zealous. Without a prize, even an extremely trivial one, cooperation is more likely as students will attempt to either please the instructor or end class early. In addition, students learn that resolutions to conflicts often lead to trade-offs.

Process

The game is played in rounds. Each round a team may choose to cooperate (C) or not to cooperate (NC). Each round lasts approximately 5 minutes.⁵ If both teams choose to cooperate (C), then they both receive 500 points. If one team chooses to cooperate (C) and the opposite team chooses not to cooperate (NC), then the team that did not cooperate gets 1,000 points while the team that chose to cooperate loses 1,000 points. If both teams choose not to cooperate, they both lose 500. If both teams reach 3,000 at the same time, then they split the prize. In order to introduce the possibility of a lose-lose situation, the instructor may need to limit how many rounds are played. Limiting time or rounds allows for the possibility that both teams may fail to gain material benefit from the simulation.

Students quickly learn that trust is important for negotiating. They often develop contracts, verbal agreements, and handshake deals.⁶ Most often, teams will cooperate until both reach 2,000 points. At this point in the game, both teams will try to not cooperate (NC) and both teams will lose points. They see how easy it is to develop mistrust and how arduous it can be to build trust. The negotiators will often lie to the other team about whether they will choose to (C) or (NC). A good deal of discussion and debate occurs within a group concerning what the negotiator should say to the opposing team. When a group has a strong president or dictator, the message from the negotiators is often more coherent and respected. Dissension within groups often leads to mixed signals and lower cooperation from the opposing group. In general, the more the students who actively engage in the group discussion, the better the group seems to function. Democratic groups, by nature of the simulation, tend to involve more students in the decision process.

It is important for the instructor to have the leader of each team submit their choice to (C) or (NC) at the same time. The leader writes his or her choice on a piece of paper and gives it to the instructor to assure simultaneous submissions. The teacher then announces both decisions and calculates point totals. The simulation will take between 45 minutes and an hour. The following is an example of one possible outcome of several rounds of play.

⁴Another way to simulate this process is to have the democratically elected leader be in charge of doling out the prize. If the constituents dislike the division of the goods, they can elect a different leader who has an alternative plan. This process more closely simulates the way Bueno de Mesquita et al. (2003) view the differences between an authoritarian and democratic regime.

⁵This is assuming a 50-minute class period. If the instructor has more time, then the length of the round can be extended. The negotiators need 2–3 minutes to bargain while the teams need 2–3 minutes to then make a decision. The instructor can also impose time limits on rounds. This mirrors more intense negotiations like the Cuban Missile Crisis or the Iran Hostage Crisis.

⁶Students negotiate a deal then often ask the instructor to enforce the bargain. It is important to reiterate to the students that the instructor has no authority over the sovereign states and cannot enforce either group to honor the terms of any deal.

Example

Round	Team A		Team B	
	Choice	Score	Choice	Score
1	C	500	C	500
2	C	1000	C	1000
3	C	1500	C	1500
4	C	2000	C	2000
5	NC	1000	NC	1000
6	C	1500	C	1500
7	C	0	NC	2500

In this example, neither team has won after seven rounds. After round 4 both teams tried to win by choosing NC, but both teams lost 1,000 points. Team A will probably choose NC the next round. Team B has bargaining power, and Team A gains nothing from cooperating.

Evaluation

After one or both teams win, the instructor leads the students in a debriefing. The debriefing may be performed at the start of the next class period.⁷ Students quickly make connections between the simulation and current events. Furthermore, they develop interpersonal skills and a more collaborative approach to learning. Assigning grades for this simulation can be somewhat difficult. However, the teacher should circulate throughout the groups and assess individual contributions to the discussion process during and after the simulation. The simulation can be undertaken in a single class period or extended to several.

Throughout the simulation, I have students keep a journal to reflect on the negotiation process. The journal can be another portion of the assessment of the simulation. In addition to students answering assigned questions, they are required to give free responses. These responses must be a minimum of one page long and be written during and after each class period. Introducing the simulation after discussing conflicts such as Kashmir, the Palestinian–Israeli conflict, or other critical historical conflicts helps provide useful background in cases that can be compared with the simulation. Sample questions for students to answer in the journal include: how does this simulation relate to the Palestinian–Israeli conflict? How does it relate to the Pakistani–Indian conflict over Kashmir? How does it differ? Is this a good model for the situation? Why or Why not? Did the way by which your group made decisions affect the outcome as well as the quality of the decision? Explain. What is the role of trust in negotiations? How did the structure of your group affect decision making? The instructor may also elect to have students discuss in the journal the intergroup and intragroup dynamics. If the journal is an in-class assignment, students can write in the journal while the negotiators are busy and during other transitions.

Debriefing

Debriefing may be the most important aspect of any simulation as students can reflect on the lessons learned from an amusing game-like environment. This simulation is ideal for introducing students to the concepts of relative and absolute

⁷The whole simulation will last for about 1 hour and a half. For a 50-minute period, it is best to outline the rules, run the beginning of the simulation, and then finish the simulation and debrief the following class period. For a 75- or 90-minute class, the whole simulation can be completed in one period.

gains. After many trials of this simulation, both teams lose more often than either team wins. Although it is beneficial for the groups to establish some type of contract where each group receives at least some benefit, groups often view their gain in relation to their opponent. As long as the other team loses, they are content with the outcome.

Another concept that is important to flesh out during the debriefing is the role of trust in negotiations. As this anarchical situation lacks an enforcement mechanism, trust is critical to reaching a cooperative outcome. Without some trust building, it is very difficult to reach a mutually beneficial conclusion. Current events that may relate to the simulation can also aid in the debriefing. For example, the World Trade Organization negotiations proceed in rounds (much like the simulation). Without coordination, trust, and negotiating, the rounds often fail to reach an outcome that could help each nation achieve their trade goals. In Cancun the developing world bloc, led by countries like Brazil and India, effectively defected from the negotiations. This defection made a cooperative outcome impossible. The WTO negotiations also highlight the incentives to defect in a prisoner's dilemma game. States in the international system would prefer to keep their domestic market closed while all other states follow liberal trade policies. This way the state receives the benefits of open markets without having to impose costs on domestic producers.⁸

It is also beneficial to assign readings pre- and post-simulation. For example, giving students Putnam's (1988) article on two-level games helps meld theory and practice. Students sometimes find that conflict within the group is as intense as conflict between the groups. In addition, the groups will often constrain the behavior of both the leader and the negotiator. As the simulation occurs on two levels, students experience directly how Putnam's theory applies to real situations. Discussion of the democratic peace theory can also be an important part of the debriefing. Students in the authoritarian group may feel that their opinions were not taken into account or that they individually were left out of the entire process. Debating whether the structure of the group affects their behavior in negotiations naturally leads itself into the democratic peace debate.

Extensions

If the initial simulation is successful with a class, some extensions can be added to make the simulation even more realistic. For example, the democratic team can hold elections at specified periods in the simulation to allow the constituents to remove a leader who is not acting in their interests. To more closely mirror a parliamentary system, the disenfranchised group could call these elections. Or to simulate a presidential system, elections can be held at fixed intervals such as every third round. Removal from office can also be an option for the authoritarian group through a coup. Similar to the elections, this can be built into the game. If a majority of the group members choose to depose the leader, a new leader is installed. For very large classes, it is also possible to vary the game environment. Setting up multiple games with varying combinations of democratic and authoritarian groups can aid the debriefing. Multiple games allow students to have diverse experiences ranging from being in a democratic group negotiating with another democracy to being part of an authoritarian group negotiating with another authoritarian group.

⁸If students have not been previously exposed to the general problem of collective action, the debriefing session is an appropriate time to introduce this concept (Olson 1965).

Negotiation Simulation

Welcome to the Negotiation Simulation. For the next few hours, you will be participating in a simulation of international relations. Your goal is to reach 3000 points first. If you do, your group will receive a prize designated by your instructor. If you reach 3000 at the same time as the opposing team, you will split the prize.

The game will be played in rounds. Each round your team may choose to Cooperate (C) or Not Cooperate (NC). If you choose (C) and the opposing team chooses (C), both teams gain 500 points. If you choose (NC), but the opposing team chooses (C); then your team receives 1000 points and the opposing team loses 1000 points. If both teams choose (NC), then you both lose 500 points.

Before the game begins the democratic team must decide on a leader. The instructor will assign a leader for the other group. After the leader for each team is chosen, the leader will select a person or team to serve as negotiator.

Before each round, your team will negotiate with the other team. *Only your negotiator or negotiating team may speak to the other team.* Your negotiator's job is to discuss with the other team what their choice will be, (NC) or (C). Your negotiator will then advise your team leader as to what your team's decision should be. Your team leader submits your team's choice in writing to the instructor. When both teams have submitted their written decisions, the instructor will announce the decisions and assess points. After the points are assessed a new round begins.

Team Leader _____ Negotiator(s) _____
(name) (name(s))

Round	Team A	Team B
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
9	_____	_____
10	_____	_____

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