
Political Science 270

Mechanisms of International Relations

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OH: Thursday. 12:30 – 1:30
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Course Information:
Spring 2025
Mon/Wed 14:00–15:15
Lechase Room 148

The last twenty years or so saw two major revolutions in the social sciences. Instead of trying to discover and test grand “covering laws” that have universal validity and tremendous scope—think Newton’s gravity or Einstein’s relativity—the social sciences are in the process of switching to precise and tailored **causal** explanations, often referred to as causal mechanisms. This approach first emphasized theory and theory construction, but has now spread to the empirical side of the equation, and is there typically referred to as Causal Inference. In this course we largely focus on theoretical causal mechanisms.

The course introduces students to a range of such causal mechanisms with applications in international relations. Although these causal mechanisms can loosely be described in prose, explicit formalization – e.g., math – allows for a much deeper and richer understanding of the phenomena of study. In other words, formalization enables simplification and thus a better understanding of what is “really” going on. To set us on that path, we begin with some very basic rational choice fundamentals to introduce you to formal models in a rigorous way to show the power and potential of this approach. In other words, there will be some *gasp* *Algebra*. For much of the very brief but essential introduction to game theory we will use William Spaniel’s Channel (<http://gametheory101.com/courses/game-theory-101/>, also on YouTube), as well as his cheap but very highly rated introductory book *Game Theory 101: The Complete Textbook* available at Amazon (<http://www.amazon.com>). For the second half of the semester, I am assigning an intensive and extensive investigation of the First World War with game theoretic tools. But in the lectures we’ll continue to develop game-theoretic tools.

Course Requirements Students are of course required to read all the material; be ready to summarize each paper in a cogent paragraph or two; and participate in class discussion. Participation in the seminar comprises a third of your grade. Participation includes participation in class discussions, as well as **one** class presentation. **This presentation should take no more than 15 minutes at most.** In this class presentation, you are to present and describe one of the mechanisms we discuss in class with an example *of your own*. This example can be from a newspaper reading you found, from a book, from family history, from your personal life, from anything. But it must be a real example. The presenter **must** send a 1 page (at most) summary of the presentation to me by email, which must arrive no later than **8 PM, the day before the presentation is due.**

A midterm exam counts for another third of your grade, and a final exam counts for the final a third of your grade. The final exam is given during the period scheduled by the University. In particular instances, students may substitute a *serious* research paper for the final. Students

interested in the research paper option should approach me no later than one week after the mid-term.

For those enrolled in the **W** section, you *must* provide me with a one page statement of your proposed paper. Failure to do so will be penalized. The research proposal must clearly state the *central question*, the proposed *central answer*, and potential *competing explanations*.

Academic Integrity

Be familiar with the University's policies on academic integrity and disciplinary action (<http://www.rochester.edu/living/urhere/handbook/discipline2.html#XII>). Violators of University regulations on academic integrity will be dealt with severely, which means that your grade will suffer, and I will forward your case to the Chair of the College Board on Academic Honesty, on which I have served.

Texts

I will provide a hand-out with the typed up lecture notes, currently about 170 pages two weeks before the Mid-term, and two weeks before the Final.

The following books are required reading:

1. Scott Wolford, *The Politics of the First World War; A Course in Game Theory and International Security*. Cambridge, UK: Cambridge University Press, 2019.
2. William Spaniel, *Game Theory 101: The Complete Textbook*, self published by Will. Both books are available at <http://www.amazon.com>.

Readings not included in one of the texts can be found through one of the online databases or on the library's course web page, or will be provided in a Dropbox folder for the course. In addition, I expect students to read one of the following newspapers: the *New York Times*, the *Washington Post*, or the *Financial Times*, the *Frankfurter Allgemeine*, *Die Zeit*, *Le Monde diplomatique*, *BBC News*, *The Guardian* or a comparable international news provider.

Course Outline

Wednesday January 22

1. No Class

Friday January 24–weird Rochester Monday day

2. Introduction

Monday January 27

3. Thinking Strategically

- William Spaniel, from Game Theory 101 MOOC, lesson #1: Introduction.
https://www.youtube.com/watch?v=NSVm0C_5zrE

Wednesday January 29

4. Causal Mechanisms

- Jon Elster, “Introduction,” Chapter 1 in Jon Elster, (ed.) *Rational Choice*, New York: NYU Press, 1986, 1–33.
- Charles Tilly, “Mechanisms in Political Processes,” in *Annual Review of Political Science*, Vol.4, June 2001, 21–41.
- Hedström, Peter, and Petri Ylikoski. 2010. “Causal Mechanisms in the Social Sciences.” *Annual Review of Sociology* 36 (1): 49–67
- WATCH: William Spaniel, from Game Theory 101 MOOC,
 - lesson #2: The Prisoner’s Dilemma.
<https://www.youtube.com/watch?v=IotsMu1J8fA>
 - lesson #3: <https://www.youtube.com/watch?v=DanTKx1FLY8>
 - lesson #4: <https://www.youtube.com/watch?v=08T9spKHVWQ>

Monday February 3

5. Strategic Choice in International Relations

- David A. Lake and Robert Powell, “International Relations: A Strategic Choice Approach,” Chapter 1 in Lake and Powell (eds.), *Strategic Choice in International Relations*, Princeton, NJ: Princeton University Press, 1999, 3–38.
- Jeffrey A. Frieden, “Actors and Preferences in International Relations,” Chapter 2 in Lake and Powell (eds.), *Strategic Choice in International Relations*, Princeton, NJ: Princeton University Press, 1999.

Wednesday February 5

6. The Prisoner's Dilemma

- Robert Axelrod, Chapters 1, 2, 4, 7 in *The Evolution of Cooperation*. New York: Basic Books, Inc., 1984.
- WATCH: William Spaniel, from Game Theory 101 MOOC,
 - lesson #5: Nash Equilibria.
<https://www.youtube.com/watch?v=5TcYV6CZ7mI>
 - lesson #6: https://www.youtube.com/watch?v=VuDutyTs_r8
 - lesson #7: <https://www.youtube.com/watch?v=fvEQujUcPv4>
 - lesson #8: <https://www.youtube.com/watch?v=aa8USttcDoE>

Monday February 10

7. Coordination

- Henry Farrell, How the Battle of the Sexes sheds light on the battle of the sexes. on the blog **Crooked Timber**. <https://crookedtimber.org/2024/02/12/how-the-battle-of-the-sexes-sheds-light-on-the-battle-of-the-sexes/>
- WATCH: William Spaniel, from Game Theory 101 MOOC,
 - lesson #10: Battle of the Sexes.
<https://www.youtube.com/watch?v=2BdBWmL8tJc>
 - lesson #11: <https://www.youtube.com/watch?v=41E14vDkML8>

Wednesday February 12

8. Coordination

- David M. Kreps, “Corporate culture and economic theory,” in James E. Alt and Kenneth A. Shepsle, *Perspectives on Positive Political Economy*, New York: Cambridge University Press, 1990; 90–143

Monday February 17

9. Coordination

- Russell Hardin, *One for All: The Logic of Group Conflict*. Princeton, NJ: Princeton University Press, 1995; Chapters 1–4.

Wednesday February 19

10. Coordination

- Gerry Mackie, “Ending Footbinding and Infibulation: A Convention Account,” *American Sociological Review*, Vol. 61, No. 6 (December 1996), 999–1017

- Timur Kuran, “Now out of Never: The Element of Surprise in the East European Revolution of 1989,” in *World Politics*, Vol.44, No.1 (October 1991), pp.7–48.
- Christian S. Crandall, “Social Contagion of Binge Eating.” *Journal of Personality and Social Psychology*, 1988, Vol. 55, No. 4, pp. 588–598

Optional

- Randall Calvert, “Leadership and Its Basis in Problems of Social Coordination.” *International Political Science Review* 13 (1992), pp. 7–24.
- Duncan Snidal, “Coordination versus Prisoners’ Dilemma: Implications for International Cooperation and Regimes,” *American Political Science Review*, 79 (4): 923–942 (December 1985).
- Malcolm Gladwell, *The Tipping Point: How Little Things Can Make a Big Difference*. Back Bay Books; (January 2002)
- Barry R. Weingast, “The Political Foundations of Democracy and the Rule of Law,” *The American Political Science Review*, Vol. 91, No. 2 (June 1997), 245–263.
- Thomas Schelling, “Thermostats, Lemons, and Other Families of Models,” Chapter 3 in Thomas Schelling, *Micromotives and Macrobehavior*, New York: Norton, 1978.

Monday February 24

11. Commitment Problems

- Thomas Schelling, Chapter 2, “The art of commitment,” in *Arms and Influence*, New Haven: Yale University Press, 1966; 35–91
- WATCH: William Spaniel, from Game Theory 101 MOOC,
 - lesson #16: Subgame Perfection.
<https://www.youtube.com/watch?v=hSYXkDnCpHM>
 - lesson #17: <https://www.youtube.com/watch?v=pyLkK5HpDY>
 - lesson #18: <https://www.youtube.com/watch?v=LSHa1pcy6v8>
 - lesson #22: <https://www.youtube.com/watch?v=bxIrKkGRpBY>
 - lesson #24: <https://www.youtube.com/watch?v=rmPDAJIpQr0>

Wednesday February 26

12. Commitment Problems

- Barbara F. Walter, “The critical barrier to civil war settlement,” *International Organization*, 51 (3): 335–364 Summer 1997

Monday March 3

13. Commitment Problems

- James D. Fearon, “Commitment Problems and the spread of Ethnic Conflict,” Chapter 5 in David A. Lake and Donald Rothchild, (eds.), *The International Spread of Ethnic Conflict: fear diffusion, and escalation*, Princeton, NJ: Princeton University Press, 1998, 107–126.

Wednesday March 5

14. **Bargaining**

- Abhinay Muthoo. 2000. “A Non-Technical Introduction to Bargaining Theory.” *World Economics* 1(2): 145-166
- James D. Fearon, “Rationalist Explanations for War,” in *International Organization*, Vol.49 (3) (Summer 1995), pp.379–414.
- Dan Reiter, “Exploring the Bargaining Model of War.” in *Perspectives on Politics*, Vol. 1, No. 1, March 2003, pp.27–43.

Optional:

- Jack Knight, Models, Interpretations, and Theories: Constructing Explanations of Institutional Emergence and Change,” In *Explaining Social Institutions*, Jack Knight and Itai Sened, eds., University of Michigan Press, 1998. (This is extensively referred to in Henry Farrell’s blogpost listed above.)

Monday March 10

NO CLASS: SPRING RECESS

Wednesday March 12

NO CLASS: SPRING RECESS

Wednesday March 17

NO CLASS: SPRING RECESS

Wednesday March 19

MID TERM EXAM

Monday March 24

STUDENTS WHO ARE WRITING A PAPER FOR THIS CLASS MUST HAND IN THEIR ONE-PAGE PROPOSAL ON THIS DAY.

15. **Signaling**

- James D. Morrow, 1999. “The Strategic Setting of Choices: Signaling, Commitment, and Negotiation in International Politics,” Chapter 3 in David A. Lake and Robert Powell (eds.), *Strategic Choice in International Relations*, Princeton, NJ: Princeton University Press, 1999.
- James D. Fearon, 1997. “Signaling Foreign Policy Interests: Tying Hads versus Sinking Costs,” *The Journal of Conflict Resolution*, 41(1): 68-90.

Wednesday March 26

16. **Signaling**

- Kenneth Schultz, *Democracy and Coercive Diplomacy*, New York: Cambridge University Press, 2000, Chapters 2–4.

Monday March 31

17. **A Game Theoretic Examination of The First World War**

- Scott Wolford, 2019. The Theory of War I: Commitment Problems; Armed Continent: The Anglo-German Naval Race; and Leaping into the Dark: Europe Goes to War. Chapters 2-4 in his *The Politics of the First World War; A Course in Game Theory and International Security*. Cambridge, UK: Cambridge University Press, pp.25–99

Wednesday April 2

18. **A Game Theoretic Examination of The First World War**

- Scott Wolford, 2019. The Theory of War II: Information Problems; A Scrap of Paper: Belgium, France, and British Entry; Troubled Partnerships: Coalitions at War, Chapter 5-7 in his *The Politics of the First World War; A Course in Game Theory and International Security*. Cambridge, UK: Cambridge University Press, pp.100-190.

Monday April 7

Wednesday April 9

19. **A Game Theoretic Examination of The First World War**

- Scott Wolford, The Best-Laid Plans: Attrition's Static Horror; Choosing Sides: Building Military Coalitions; Coordinating Caution: Naval War in the North Sea, Chapters 8-10 in his *The Politics of the First World War; A Course in Game Theory and International Security*. Cambridge, UK: Cambridge University Press, pp.191-285.

Monday April 14

20. **Enigma**

- A bit about the historical background of Enigma: https://vc.bridgew.edu/cgi/viewcontent.cgi?article=2117&context=br_rev
- How Enigma worked and could be broken: <https://git.imaginaerraum.de/Telos4/code-break-party/raw/commit/447bcafe9debdeb96610406f1262f2fb903e666a/misc/lyndat-nayoung-ssrusso-Enigma.pdf>

Wednesday April 16

21. A Game Theoretic Examination of The First World War

- Scott Wolford, The Theory of War II: Commitment and War Termination; The Theory of War IV: Information and War Termination, Chapters 11–12 in his *The Politics of the First World War; A Course in Game Theory and International Security*. Cambridge, UK: Cambridge University Press, pp.286-350.
- WATCH: William Spaniel, from Game Theory 101 MOOC,
 - lesson #63: Incomplete Information.
<https://www.youtube.com/watch?v=mN5SP7ppQr4>
 - lesson #64: https://www.youtube.com/watch?v=AzN-eV_Na10

Monday April 21

22. A Game Theoretic Examination of The First World War

- H. E. Goemans, *War and Punishment*, Princeton, NJ: Princeton University Press, 2000; Chapters 1–3.

Wednesday April 23

23. A Game Theoretic Examination of The First World War

- Scott Wolford, Too Proud to Fight? U-boats and American Neutrality; The End of the Beginning: Victory, Defeat, and Peace, Chapters 13-14 in his *The Politics of the First World War; A Course in Game Theory and International Security*. Cambridge, UK: Cambridge University Press, pp.351-407.

Monday April 28

24. Psychological Mechanisms

- Jack S. Levy, “Loss Aversion, Framing Effects, and International Conflict, Perspectives from Prospect Theory,” in Manus Midlarsky (ed.), *Handbook of War Studies II*, Ann Arbor: University of Michigan Press, 2000: 193–221.
- Amos Tversky and Daniel Kahneman, “The Framing of Decisions and the Psychology of Choice,” Chapter 5 in Jon Elster (ed.), *Rational Choice*, New York, NYU Press, 1986.

Wednesday April 30

LAST DAY OF CLASSES

25. Be Aware of the Pitfalls

- Branislav Slantchev, “On the Proper Use of Game-Theoretic Models in Conflict Studies.” Presentation prepared for the NEPS Lecture at the 17th Jan Tinbergen European Peace Science Conference, 2017. Unpublished ms., in the Readings folder.

Questions to consider in formulating and evaluating social science research

1. *What is the central question?*
 - Why is it important (theoretically, substantively)?
 - What is being explained (what is the dependent variable and how does it vary)?
 - How does this phenomenon present a puzzle?
2. *What is the central answer?*
 - What is doing the explaining (what are the independent variables and how do they vary)?
 - What are the hypotheses, i.e., what is the relationship between independent and dependent variables, what kind of change in the independent variable causes what kind of change in the dependent variable?
 - What are the causal mechanisms, i.e., why are the independent and dependent variables so related?
 - How do the independent variables relate to each other?
 - What assumptions does your theory make?
 - Is the theory falsifiable in concept?
 - What does this explanation add to our understanding of the question?
3. *What are the possible alternative explanations?*
 - What assumptions are you making about the direction of causality?
 - What other explanations might there be for the phenomenon of study, and to what degree do they conflict with the central answer?
 - Could the hypothesized relationships have occurred by chance?
4. *Why are the possible alternative explanations wrong?*
 - What is the logical structure of the alternative explanations (compare 2)?
 - What is the empirical evidence?
5. *What is the relationship between the theory and the evidence?*
 - What does the research design allow to vary, i.e., in this design are the explanations variables or constants?
 - What does your research design hold constant, i.e., does it help to rule out the alternative competing explanations?
 - How are the theoretical constructs represented empirically, i.e., how do you know it when you see it (measurement)?
6. *How do the empirical conclusions relate to the theory?*
 - How confident are you about the theory in light of the evidence?
 - How widely do the conclusions generalize, i.e., what might be the limitations of the study?
 - What does the provisionally accepted or revised theory say about questions of broader importance?