Causal Mechanisms

Causal mechanisms are at the heart of what we do as political scientists, but we devote remarkably little time to understanding them. If you ask a job candidate what model of the political process is at the heart of his or her work, the answer, likely as not, will be a linear-additive statistical model, a game tree, possibly a highly simplistic causal diagram... or simple evasion. The literature on causal mechanisms, unfortunately, often fails to remedy the problem because it has a way of missing the forest for the trees, leaving students with an intricate understanding of the internal logic and nature of mechanisms but little sense of how they might be applied in practice.

The goal of this course, therefore, is to introduce students to a variety of causal mechanisms from the applied literature in political science. The applications will, per the instructor's predilections, be drawn as often as not from the international relations subfield, though some will not. Many are old, because older work in political science, for better or worse, often reflects a theoretical diversity that is lacking in more recent years. Quite a few will be quantitative in nature, not because of the aesthetic beauty of the Greek alphabet, but because one of the virtues of formalization is that it forces the author to make the mechanism at the heart of the work at least as explicit as the math. That said, students will often find that understanding the math will be superfluous for our purposes given that the authors must also explain themselves in English.

Structure of the class
The class will be run as a seminar. Broadly speaking, you should bear in mind four questions when doing the reading assignments:

What are the strengths of this particular application of this mechanism?
What are the weaknesses?
How might the weaknesses be remedied?
What new applications could you envision for this mechanism?

Those are, in general, the questions that you will be asked to discuss in seminar each week, so when the time comes you should be prepared to answer them.

Note that, as far as the applications are concerned, there are very few "right" answers, so don't be shy about speaking your mind. Different causal mechanisms represent different ways of boiling down an immensely complex world into a manageable representation, and all such representations will to some extent be wrong; the question, really, is which sorts of techniques are most useful for which purposes, and on that question informed opinion differs, sometimes quite drastically.
Requirements
There will be no midterm and no final exam. The course grade will be based on participation (50%), three response papers that critically and constructively engage the week's readings (30%, 3 page maximum, send to me via email, deadline 24 hours before class), and a final paper that compares the strengths and weaknesses of any two classes of mechanism in more depth (20%, 15 pages maximum, due on the last day of final exams).

Overview of Readings

Week 1  The Nature of a Causal Mechanism
Week 2  Generic Process Mechanisms
Week 3  Equilibration Mechanisms
Week 4  Optimization Mechanisms
Week 5  Learning Mechanisms
Week 6  Interaction Mechanisms I: Strategic Interaction
Week 7  Interaction Mechanisms II: Integration and Aggregation
Week 8  Interaction Mechanisms III: Contagion/Diffusion
Week 9  Interaction Mechanisms IV: Evolution and Complexity
Week 10 Universal, Contextual, and Synthetic Mechanisms
Readings and Class Schedule

Week 1  The Nature of a Causal Mechanism

Beck-Collier-Brady et al. contretemps on causal process observations from Political Analysis, 2006 and 2010

Recommended
Week 2  Generic Process Mechanisms


Recommended


Week 3  Equilibration Mechanisms


Recommended


Week 4  Optimization Mechanisms


Recommended


Week 5  Learning Mechanisms

Week 6   Interaction Mechanisms I: Strategic Interaction


Recommended
Week 7 Interaction Mechanisms II: Integration and Aggregation

Integration

Aggregation

Recommended
Integration

Aggregation
Week 8 Interaction Mechanisms III: Contagion/Diffusion

Week 9 Interaction Mechanisms IV: Evolution and Complexity


Recommended

Week 10  Universal, Contextual, and Synthetic Mechanisms


Recommended


