

# **Quantitative Studies of International Security**

Political Science 7375

## **Syllabus**

### *Course Information*

Meeting Time: Tuesday, 11:00 a.m.–1:45 p.m.

### *Instructor Information*

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## Course description

There are two broad themes to this course. The first is a concerted conceptual attack against the linear model. GLMs have become the workhorse of conflict research in international relations to such an extent that scholars often *theorize* in linear-model terms. That's a tragic outcome, both in that it reifies a convenient statistical construct and in that it cuts off other, potentially more fruitful avenues of explanation. As the sociologist Aage Sørensen put it,

Regression models are made additive because statisticians tell sociologists that while they will be happy to develop techniques to estimate any model the sociologist desires to estimate, sociological theory should suggest the model. Short of such theoretical models, the statistician proposes an additive model as the best. When the sociologist asks for the rationale for the additive model, the statistician suggests that the linear model is the most parsimonious model. Parsimony is here meant as statistical simplicity, both computationally and mathematically. The sociologist has nothing better to suggest and proceeds with following the statistical advice. The possible lack of [theoretical] meaning in the additive specification is rarely noted in statistics and method classes.<sup>1</sup>

To promote more outside-the-linear-model thinking, we will explore a variety of less-utilized (in political science) but promising ways of thinking about social phenomena that could find useful application in international relations.

The remainder of the course explores recent research on current topics in international and intranational security. Each week's seminar will examine a range of studies on the subject of the week. We will discuss both research design and execution and how each piece contributes to the larger theoretical dialogue that comprises the literature on the subject at hand.

Beginning graduate seminars often train graduate students to be intellectual piranhas—to rip apart whatever unfortunate piece of literature wanders into their path. There are advantages to such an approach, but not, in my opinion, to pursuing it exclusively: it de-emphasizes the need to think about how one might make a positive contribution to a given literature, and in so doing encourages a form of intellectual atrophy that makes writing a dissertation a long, painful experience

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<sup>1</sup>Sørensen, Aage B. (1998), "Theoretical Mechanisms and the Empirical Study of Social Processes," in P. Hedström and R. Swedberg (eds.), *Social Mechanisms: An Analytical Approach to Social Theory*, pp. 238–266. Cambridge: Cambridge University Press, at 249.

filled with self-recrimination and doubt. These have their place, of course, but when they overwhelm intellectual curiosity and creativity the result is dozens of promising draft chapters that are scrapped before they have a chance to develop.

Therefore, when you read a piece of research for this class, you should structure your thinking in terms of three overarching questions:

1. What is good about this piece?
2. What is bad about this piece?
3. How might it be improved?

## Requirements

There are two requirements. First, discuss the articles in class. For each article on a given day, I will randomly select a student to introduce each of the readings. Although I do not take attendance, all students without excused absences will be included in the randomized list, and being selected while absent does count against participation. Introductions should last no more than two minutes. Do not summarize the article beyond what is contained in the abstract; assume that the audience has read it and at best needs a brief reminder. Rather, focus on the substantive and methodological questions that the article raised in your mind as you read it. The goal is to get conversation going.

Second, by the end of the semester, complete a replication *and reimagining* of an existing study in international security. By “replication,” I mean that you should obtain the original data and replicate the results from the paper, if possible. By “reimagining,” I mean that you should conceptualize the question in a wholly different manner (no “I added an interaction term”) and re-analyze the data, augmenting or transforming them if necessary, in such a way that you end up articulating and testing a different *understanding* of the phenomenon in question. This exercise could involve anything from building your own agent-based model, running simulations, and deriving hypotheses to simply exploring the variance or frontier of the data rather than the central tendency. Use papers from *Science* and *PNAS* as your models: be very succinct and try not to go over 10 pages total length.

A brief (roughly two-page) prospectus for the research paper, outlining the existing paper and the proposed reimagining, is due on **March 8**. The final version of the paper will be due on **April 22**.

**Academic Misconduct**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct ([http://studentaffairs.osu.edu/resource\\_csc.asp](http://studentaffairs.osu.edu/resource_csc.asp)).

All students believe that they know how not to plagiarize. Many of them are wrong. Every year, many of them find that out the hard way. Don't be one of them.

The short version is that passing off another person's work or ideas as your own is plagiarism. That includes the unacknowledged word-for-word use or paraphrasing of another person's work or ideas. It is not enough, for example, simply to copy and paste a passage and then cite the source at the end. If the passage is taken word-for-word, it must be in quotes as well to indicate that fact.

There is an excellent video at <http://hdl.handle.net/1811/46848>, if you have any doubts. You should be crystal clear, as the University's policies exist to ensure fairness, and violators of University regulations on academic integrity will be dealt with severely.

## **Disability Services**

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.

## **January 12: Introduction**

### Background reading

Zinnes, Dina. (1980) "Three Puzzles in Search of a Researcher: Presidential Address." *International Studies Quarterly* 24(3): 315–342.

Schrodt, Philip A.. (2013) "Seven Deadly Sins of Contemporary Quantitative Political Analysis." *Journal of Peace Research* 51(2): 287–300.

**January 19: Emergence**

Watts, Duncan J. (2011) *Everything is Obvious (Once You Know the Answer): How Common Sense Fails Us*. New York: Crown, chs. 2–5.

Fearon, James. (1996) “Counterfactuals and Causation in Social Science: Exploring an Analogy between Cellular Automata and Historical Processes.” In Philip Tetlock and Aaron Belkin, eds., *Counterfactual Thought Experiments in World Politics* (Princeton: Princeton University Press).

Bremer, Stuart, and Michael Mihalka. (1977) “Machiavelli in Machina: Or Politics Among Hexagons.” In *Problems of World Modeling: Political and Social Implications*, edited by Karl W. Deutsch, Bruno Fritsch, Helio Jaguaribe, and Andrei S. Markovits. Cambridge: Ballinger Publishing Company.

Axelrod, Robert. (1997) “The Dissemination of Culture: A Model with Local Convergence and Global Polarization.” *Journal of Conflict Resolution* 41(2): 203–26.

Cederman, Lars-Erik. (1994) “Emergent Polarity: Analyzing State-Formation and Power Politics.” *International Studies Quarterly* 38(4): 501–33.



**January 26: Context**

Goertz, Gary. (1994) *Contexts of International Politics*. Cambridge: Cambridge University Press, ch. 2.

Braumoeller, Bear F., and Austin Carson. (2011) "Political Irrelevance, Democracy, and the Limits of Militarized Conflict." *Journal of Conflict Resolution* 55(2): 292–320.

Goertz, Gary, Tony Hak, and Jan Dul. (2012) "Ceilings and Floors: Where Are There No Observations?" *Sociological Methods & Research* 42(1): 3–40.

Wawro, Gregory J., and Ira Katznelson. (2014) "Designing Historical Social Scientific Inquiry: How Parameter Heterogeneity Can Bridge the Methodological Divide between Quantitative and Qualitative Approaches." *American Journal of Political Science* 58(2): 526–46.

Braumoeller, Bear F. (2006) "Explaining Variance; Or, Stuck in a Moment We Can't Get Out Of." *Political Analysis* 14(3): 268–90.

Roeder, Philip G. (1984) "Soviet Policies and Kremlin Politics." *International Studies Quarterly* 28(2): 171–93.

Chiba, Daina, Carla Martinez Machain, and William Reed. (2013) "Major Powers and Militarized Conflict." *Journal of Conflict Resolution* 58(6): 976–1002.

**February 2: Swan**

Taleb, Nassim Nicholas. (2010) *The Black Swan: The Impact of the Highly Improbable*. New York: Random House, chs. 1–3, 14–15.

Andriani, Pierpaolo, and Bill McKelvey. (2009) “From Gaussian to Paretian Thinking: Causes and Implications of Power Laws in Organizations.” *Organization Science* 20(6): 1053–71.

Clauset, Aaron, Cosma Rohilla Shalizi, and M. E. J. Newman. (2009) “Power-Law Distributions in Empirical Data.” *SIAM Review* 51(4): 661–703.

Cederman, Lars-Erik, T. Warren, and Didier Sornette. (2011) “Testing Clausewitz: Nationalism, Mass Mobilization, and the Severity of War.” *International Organization* 65(4): 605–38.

Clauset, A., M. Young, and K. S. Gleditsch. (2007) “On the Frequency of Severe Terrorist Events.” *Journal of Conflict Resolution* 51(1): 58–87.

Johnson, N., S. Carran, J. Botner, K. Fontaine, N. Laxague, P. Nuetzel, J. Turnley, and B. Tivnan. (2011) “Pattern in Escalations in Insurgent and Terrorist Activity.” *Science* 333(6038): 81–84.

**February 9: Predict**

Shmueli, Galit. (2010) “To Explain or to Predict?” *Statistical Science* 25(3): 289–310.

Watts, Duncan J. (2011) *Everything is Obvious (Once You Know the Answer): How Common Sense Fails Us*. New York: Crown, ch. 6.

Clauset, Aaron, and Ryan Woodard. (2012). “Estimating the Historical and Future Probabilities of Large Terrorist Events.” arXiv preprint arXiv:1209.0089. <http://arxiv.org/abs/1209.0089>

Hegre, Håvard, Joakim Karlsen, Håvard Møkleiv Nygård, Håvard Strand, and Henrik Urdal. (2012) “Predicting Armed Conflict, 2010–2050.” *International Studies Quarterly*: 250–70.

Ward, Michael D., B. D. Greenhill, and K. M. Bakke. (2010) “The Perils of Policy by p-Value: Predicting Civil Conflicts.” *Journal of Peace Research* 47(4): 363–75.

Ward, Michael D. et al. (2013) “Learning from the Past and Stepping into the Future: Toward a New Generation of Conflict Prediction.” *International Studies Review* 15(4): 473–90.

**February 16: Explain**

Sekhon, Jasjeet S. (2009) "Opiates for the Matches: Matching Methods for Causal Inference." *Annual Review of Political Science* 12(1): 487–508.

Sovey, Allison J., and Donald P. Green. (2011) "Instrumental Variables Estimation in Political Science: A Readers' Guide." *American Journal of Political Science* 55(1): 188–200.

Gilligan, Michael J. (2008) "Do UN Interventions Cause Peace? Using Matching to Improve Causal Inference." *Quarterly Journal of Political Science* 3(2): 89–122.

Hill, Daniel W. (2010) "Estimating the Effects of Human Rights Treaties on State Behavior." *The Journal of Politics* 72(4): 1161–74.

Lyall, J. (2009) "Does Indiscriminate Violence Incite Insurgent Attacks?: Evidence from Chechnya." *Journal of Conflict Resolution* 53(3): 331–62.

Braumoeller, Bear F., Giampiero Marra, Rosalba Radice, and Aisha Bradshaw. (2015) *Causal Inference and the Study of International Institutions*. Manuscript, The Ohio State University.

**Recommended:**

Morgan, Stephen L., and Christopher Winship. (2015) *Counterfactuals and Causal Inference: Methods and Principles for Social Research*. New York: Cambridge University Press.

**February 23: System**

Debs, Alexandre, and Nuno P. Monteiro. (2014) "Known Unknowns: Power Shifts, Uncertainty, and War." *International Organization* 68(1): 1–31.

Levy, Jack S., and William R. Thompson. (2005) "Hegemonic Threats and Great-Power Balancing in Europe, 1495–1999." *Security Studies* 14(1): 1–33.

Van Belle, Douglas A. (1998) "Balance of Power and System Stability: Simulating Complex Anarchical Environments over the Internet." *Political Research Quarterly* 51(1): 265–282.

Kalyvas, Stathis N., and Laia Balcells. (2010) "International System and Technologies of Rebellion: How the End of the Cold War Shaped Internal Conflict." *American Political Science Review* 104(3): 415–29.

Maoz, Zeev. (2009) "The Effects of Strategic and Economic Interdependence on International Conflict across Levels of Analysis." *American Journal of Political Science* 53(1): 223–40.

Braumoeller, Bear F. (2008) "Systemic Politics and the Origins of Great Power Conflict." *American Political Science Review* 102(1): 77–93.

Braumoeller, Bear F. (2013) *The Great Powers and the International System: Systemic Theory in Empirical Perspective*. Cambridge: Cambridge University Press, pp. 3–16, 47–59, 90–103. (Optional: ch. 4.)

**March 1: Issue**

Diehl, Paul F. (1992) "What Are They Fighting For? The Importance of Issues in International Conflict Research." *Journal of Peace Research* 29(3): 333–44.

Vasquez, John A., and Brandon Valeriano. (2010) "Classification of Interstate Wars." *The Journal of Politics* 72(2): 292–309.

Colgan, Jeff D. (2010) "Oil and Revolutionary Governments: Fuel for International Conflict." *International Organization* 64(4): 661–94.

Buhaug, H., K. S. Gleditsch, H. Holtermann, G. Ostby, and A. F. Tollefsen. (2011) "It's the Local Economy, Stupid! Geographic Wealth Dispersion and Conflict Outbreak Location." *Journal of Conflict Resolution* 55(5): 814–40.

Schrock-Jacobson, G. (2012) "The Violent Consequences of the Nation: Nationalism and the Initiation of Interstate War." *Journal of Conflict Resolution* 56(5): 825–52.

Carter, David B., and H.E. Goemans. (2011) "The Making of the Territorial Order: New Borders and the Emergence of Interstate Conflict." *International Organization* 65(2): 275–309.

Toft, Monica Duffy. (2014) "Territory and War." *Journal of Peace Research* 51(2): 185–98.

**March 8: Rational**

Chiba, Daina, and Songying Fang. (2014) "Institutional Opposition, Regime Accountability, and International Conflict." *The Journal of Politics* 76(3): 798–813.

Quek, Kai. (2015) "Rationalist Experiments on War." *Political Science Research and Methods*: 1–20. (Advance access)

Driscoll, Jesse, and Daniel Maliniak. (2016) "Did Georgian Voters Desire Military Escalation in 2008? Experiments and Observations." *The Journal of Politics* 78(1): 265–280.

Bell, Sam R., and Jesse C. Johnson. (2015) "Shifting Power, Commitment Problems, and Preventive War." *International Studies Quarterly* 59(1): 124–32.

Morey, Daniel S. (2011) "When War Brings Peace: A Dynamic Model of the Rivalry Process." *American Journal of Political Science* 55(2): 263–75.

Shannon, Megan, Daniel Morey, and Frederick J. Boehmke. (2010) "The Influence of International Organizations on Militarized Dispute Initiation and Duration." *International Studies Quarterly* 54(4): 1123–41.

Tiernay, Michael. (2015) "Which Comes First? Unpacking the Relationship between Peace Agreements and Peacekeeping Missions." *Conflict Management and Peace Science* 32(2): 135–52.

**Review:**

Fearon, James D. (1995) "Rationalist Explanations for War." *International Organization* 49(3): 379–414.

**March 15: Break**

Spring break. Classes resume next week.



## March 22: Decline?

Lacina, Bethany, Nils Petter Gleditsch, and Bruce Russett. (2006) “The Declining Risk of Death in Battle.” *International Studies Quarterly* 50(3): 673–80.

Gohdes, Anita, and Megan Price. (2012) “First Things First: Assessing Data Quality before Model Quality.” *Journal of Conflict Resolution* 57(6): 1090–1108.

Lacina, Bethany, and Nils Petter Gleditsch. (2012) “The Waning of War Is Real: A Response to Gohdes and Price.” *Journal of Conflict Resolution* 57(6): 1109–27.

Gleditsch, Nils Petter et al. (2013) “The Forum: The Decline of War.” *International Studies Review* 15(3): 396–419.

Fazal, Tanisha M. (2014) “Dead Wrong?: Battle Deaths, Military Medicine, and Exaggerated Reports of War’s Demise.” *International Security* 39(1): 95–125.

Taleb, Nassim Nicholas. (2012) “The ‘Long Peace’ Is a Statistical Illusion.” *fooledbyrandomness.com*. <https://web.archive.org/web/20121117225617/http://www.fooledbyrandomness.com/longpeace.pdf>.

Pinker, Steven. (2012) “Fooled by Belligerence: Comments on Nassim Taleb’s ‘The Long Peace Is a Statistical Illusion’.” *stevenpinker.com*. [http://stevenpinker.com/files/comments\\_on\\_taleb\\_by\\_s\\_pinker.pdf](http://stevenpinker.com/files/comments_on_taleb_by_s_pinker.pdf).

Cirillo, Pasquale, and Nassim Nicholas Taleb. (2015) “On the Tail Risk of Violent Conflict and Its Underestimation.” eprint arXiv:1505.04722. <http://arxiv.org/abs/1505.04722v1>

**March 29: Regime**

Dorussen, H., and H. Ward. (2008) "Intergovernmental Organizations and the Kantian Peace: A Network Perspective." *Journal of Conflict Resolution* 52(2): 189–212.

Narang, Vipin, and Rebecca M. Nelson. (2009) "Who Are These Belligerent Democratizers? Reassessing the Impact of Democratization on War." *International Organization* 63(2): 357–79.

Dafoe, Allan. (2011) "Statistical Critiques of the Democratic Peace: Caveat Emptor." *American Journal of Political Science* 55(2): 247–62.

Gartzke, Erik, and Alex Weisiger. (2013) "Permanent Friends? Dynamic Difference and the Democratic Peace." *International Studies Quarterly* 57(1): 171–85.

Dafoe, Allan, John R. Oneal, and Bruce Russett. (2013) "The Democratic Peace: Weighing the Evidence and Cautious Inference." *International Studies Quarterly* 57(1): 201–14.

Hegre, Håvard. (2014) "Democracy and Armed Conflict." *Journal of Peace Research* 51(2): 159–72.

McDonald, Patrick J. (2015) "Great Powers, Hierarchy, and Endogenous Regimes: Rethinking the Domestic Causes of Peace." *International Organization* 69(3): 557–88.

**April 5: Civil**

Balcells, Laia, and Stathis N. Kalyvas. (2014) “Does Warfare Matter? Severity, Duration, and Outcomes of Civil Wars.” *Journal of Conflict Resolution* 58(8): 1390–1418.

Cunningham, Kathleen Gallagher. (2013) “Actor Fragmentation and Civil War Bargaining: How Internal Divisions Generate Civil Conflict.” *American Journal of Political Science* 57(3): 659–72.

Gubler, J. R., and J. S. Selway. (2012) “Horizontal Inequality, Crosscutting Cleavages, and Civil War.” *Journal of Conflict Resolution* 56(2): 206–32.

Sobek, David, and Caroline L. Payne. (2010) “A Tale of Two Types: Rebel Goals and the Onset of Civil Wars.” *International Studies Quarterly* 54(1): 213–40.

Burke, Marshall B. et al. (2009) “Warming Increases the Risk of Civil War in Africa.” *Proceedings of the National Academy of Sciences* 106(49): 20670–74.

Buhaug, Halvard. (2010) “Climate Not to Blame for African Civil Wars.” *Proceedings of the National Academy of Sciences* 107(38): 16477–82.

Fortna, Virginia Page. (2015) “Do Terrorists Win? Rebels’ Use of Terrorism and Civil War Outcomes.” *International Organization* 69(3): 519–56.

**April 12: Ethnic**

Bhavnani, Ravi, and Dan Miodownik. (2008) "Ethnic Polarization, Ethnic Salience, and Civil War." *Journal of Conflict Resolution* 53(1): 30–49.

Blimes, Randall J. (2006) "The Indirect Effect of Ethnic Heterogeneity on the Likelihood of Civil War Onset." *Journal of Conflict Resolution* 50(4): 536–47.

Cederman, Lars-Erik, Halvard Buhaug, and Jan Ketil Rod. (2009) "Ethno-Nationalist Dyads and Civil War: A GIS-Based Analysis." *Journal of Conflict Resolution* 53(4): 496–525.

Cederman, Lars-Erik, Kristian Skrede Gleditsch, Idean Salehyan, and Wuchterpfennig, Julian. (2013) "Transborder Ethnic Kin and Civil War." *International Organization* 67(2): 389–410.

Lyall, Jason. (2010) "Are Coethnics More Effective Counterinsurgents? Evidence from the Second Chechen War." *American Political Science Review* 104(1): 1–20.

Weidmann, Nils B. (2009) "Geography as Motivation and Opportunity: Group Concentration and Ethnic Conflict." *Journal of Conflict Resolution* 53(4): 526–43.

B. E. Goldsmith, C. R. Butcher, D. Semenovich, and A. Sowmya. (2013) "Forecasting the Onset of Genocide and Politicide: Annual out-of-Sample Forecasts on a Global Dataset, 1988–2003." *Journal of Peace Research* 50(4): 437–52.

**April 19: Terror**

Ashworth, Scott, Joshua D. Clinton, Adam Meirowitz, and Kristopher W. Ramsay. (2008) "Design, Inference, and the Strategic Logic of Suicide Terrorism." *American Political Science Review* 102(2): 269–73.

Pape, Robert A. (2008) "Methods and Findings in the Study of Suicide Terrorism." *American Political Science Review* 102(2): 275–77.

Benmelech, Efraim, Claude Berrebi, and Esteban F. Klor. (2012) "Economic Conditions and the Quality of Suicide Terrorism." *The Journal of Politics* 74(1): 113–28.

Brock Blomberg, S., Rozlyn C. Engel, and Reid Sawyer. (2009) "On the Duration and Sustainability of Transnational Terrorist Organizations." *Journal of Conflict Resolution* 54(2): 303–30.

Helfstein, Scott, and Dominick Wright. (2011) "Covert or Convenient? Evolution of Terror Attack Networks." *Journal of Conflict Resolution* 55(5): 785–813.

Horowitz, Michael C. (2010) "Nonstate Actors and the Diffusion of Innovations: The Case of Suicide Terrorism." *International Organization* 64(1): 33–64.

Courtenay R. Conrad, Justin Conrad, and Joseph K. Young. (2014) "Tyrants and Terrorism: Why Some Autocrats Are Terrorized While Others Are Not." *International Studies Quarterly* 58(3): 539–49.