# QUANTITATIVE RESEARCH IN CONFLICT ANALYSIS CONFLICT 811 FALL 2010

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# Questions and Goals

"I cannot give any scientist of any age better advice than this: the intensity of the conviction that a hypothesis is true has no bearing on whether it is true or not. . . If an experiment does not hold out the possibility of causing one to revise one's views, it is hard to see why it should be done at all." – P.B. Medawar

Why are civil wars so difficult to end and why are some more difficult than others? Do democratic governments generally spend less on the military than non-democratic governments? Do Truth and Reconciliation Commissions (TRCs) promote reconciliation among their participants? Do child soldiers benefit from DDR programs?

These questions are linked not only by their clear substantive importance, but also by our ability to answer them through the scientific process. Social science demands that we construct theory that clearly defines its assumptions, is logically consistent internally, and engenders empirically verifiable hypotheses. In turn, quantitative methods allow us to rigorously compare cases across space and time; evaluate whether a hypothesis is generally true and/or only relevant in certain types of cases; and/or engender empirical observations that demand new theories. Quantitative social science also points the way towards rigorous evaluation of interventions in conflictual situations. It also can inform practice and create excellent habits of mind, not least of which is a relentless questioning of received wisdom.

However, social scientific research is accompanied by its own pitfalls: poor data that insufficiently measure the relevant construct; a lack of attention to non-random selection (more on that later); analysis that is shoddy and opaque; the misapplication of a particular kind of model; and the deliberate distortion of otherwise sound analysis in order to mislead others or preserve one's cherished ideas. Partially due to these issues, social science is often distrusted within our field.

This class is therefore an introduction into social scientific research in our field. We will study what we mean by good social science, concentrating on the process of creating theory and designing quantitative research that allows us to test the veracity of that theory. We will also study different forms of data collection social scientists implement as part of their research. Finally, we'll discuss different forms of statistical analysis, using recent conflict research as examples of how innovative methods can be matched to crucial substantive questions. By the end of this class, you will learn how to evaluate quantitative research in conflict studies and begin to design your own.

# Details: Requirements, Grading, Etc.

"The harder I work, the luckier I get." - Samuel Goldwyn

# Prerequisites

CONF 801 and acceptance in the doctoral program. All others require my permission, which should be obtained immediately.

# **Course Materials**

The following book is required and can be purchased in the Arlington branch of the GMU Bookstore or from online booksellers. They are listed in order of appearance in the syllabus.

- Frankfort-Nachmias, Chava and David Nachmias. 2007. Research Methods in the Social Sciences, 7th Edition. New York, NY: Worth Publishers. "FNN" in your syllabus. ISBN-10: 071675519X. ISBN-13: 9780716755197
- Lave, Charles and James March. 1975. An Introduction to Models in the Social Sciences. New York, NY: University Press of America. ISBN-10: 0819183814. ISBN-13: 9780819183811. "Lave and March" in the syllabus.

# Participation and Effort

This class will likely require more effort than the average discussion class at ICAR. The assignments will require you to assess published research in conflict studies and propose your own research. This class is also demanding conceptually, so missing class or skipping readings will seriously impair your performance. I therefore would like to define precisely what this class will demand of you. By enrolling in this course, you agree to the following:

- You will attend every class and arrive on time; there are only fourteen meetings, so missing one means missing a big chunk of material. You will turn off *all* electronic devices; laptops may be left on for note-taking, but the wireless device must be turned off. You will give class your full attention. I will take attendance in every class. You are allowed to miss only one class meeting, regardless of the reason. After that one class, you will lose a half grade off your final grade per class missed. There are no exceptions to this policy.
- You will complete all readings *before* the class in question. *Do not fall behind it will prove very difficult to catch up.* Read carefully and, above all, *think!* Take notes in preparation for assignments, review the discussion questions I will post online each week (see below), and prepare questions you wish to ask in class.
- I will expect you to participate in the intellectual life of our class. There are three ways you can do so:

- In class. At most, I will use only half of class time for lecture. Mostly, I will use a more Socratic approach — in other words, I will constantly pepper you with questions and ask your opinions regarding our subject material and the day's assignment(s). I also expect that you will ask interesting questions, respond to others' questions and comments, etc. Class time represents an opportunity to talk about foundational questions of how to do good research in conflict analysis. Take advantage of it!
- Online. You are strongly encouraged to post to online discussion boards throughout the semester and e-mail me any questions you have about the work for this week.
- In office hours. I encourage you to come to office hours. I am flexible on meeting times.

# Assignments and Grading

There will be three components to your grade in this course.

- **Participation.** As discussed above, participating in class is required. It is worth **20%** of your grade.
- Replication and Extension. You will write three short (5–7 pages) papers and one long paper (about 20 pages) in which you take apart a statistical piece of research in an area in which you are interested. The three short papers are each worth 15% of your grade (45% total). The long paper will be worth 35% of your paper. You will complete the papers as follows:
  - You will obtain my approval, either in person or via e-mail, of the article you've chosen by the beginning of class in **Week 3 (September 9)**.
  - The first short paper will describe the question the article tackles, the substantive significance of the question, and the theories being evaluated. It is due at the beginning of class in Week 4 (September 23).
  - The second short paper describes and critiques the research design of the article or book.
     It is due at the beginning of class in Week 8 (October 28).
  - The third short paper describes the data the author uses and the data analysis the author conducts. It is due at the beginning of class in Week 12 (November 18).
  - The long paper will synthesize your three short papers and add a discussion of how you would extend the research in question. You will discuss the theoretical questions left unanswered, weaknesses in the research done to date, and how you would improve upon that research. It is due on December 13.

I will discuss the specifics of the assignment during Week 1.

I know that many of you are concerned about your grades and I will do everything in my power to help you throughout the course. However, I do have high standards for you, a function of the respect I have for your ability and ambition. Due to that respect, I simply will not allow you to produce work that is below your potential. Therefore, do not expect a high grade for minimal effort. In general, these will be the standards for your written assignments:

• A: Excellent work that thinks precisely, creatively and clearly. The research, if necessary for the assignment, is appropriate to the ideas under examination, creative, and exhaustive in

nature. The paper is ready to begin the process of being transformed into published research or a doctoral dissertation.

- A-: Strong work that does everything an 'A' paper does but not quite as strongly. There are small gaps in the author's thinking and/or research. I would want the author to revise and resubmit the work before she committed to it for a published paper or doctoral dissertation.
- **B+:** About average work for a graduate student. The paper contains some strong ideas or research, but suffers from at least one major problem that remains unresolved (e.g., only weak research, ideas not fully thought out, etc.). The work is still several revisions away from being considered as a topic for a published paper or doctoral dissertation.
- **B**: Work that only barely rises to the standards I set for a graduate student. There may be a core idea that deserves merit, but the author fails to consider that idea fully. There are extensive problems with both the ideas and research.
- **B-** or lower: Failing work. There is virtually nothing deserving about the analysis in the paper. The author fails to develop a central theme or line of research. There are such massive problems in ideas and research that the author cannot expect to pass this class.

We'll talk about standards for specific assignments as they come up.

A word on extensions: no. Any assignment that is late will be given a 0.

# **Course Outline**

"There are three kinds of lies: lies, damned lies, and statistics."

– Benjamin Disraeli (often attributed to Mark Twain)

This course will be split into three parts. During Part I, we will introduce what principles of social science. We'll begin by discussing how the scientific method applies in social sciences, what is a good question for investigation, and how we evaluate a good answer. In Part II, we will discuss good research design. Once we have constructed an explanation we wish to evaluate, how do we test it? We'll focus on different ways of observing the world around us in ways that will generate data that can test our hypotheses. In Part III, we'll discuss different forms of analysis of the data we have collected. Throughout the class, we will use real research projects to illustrate how the principles we're discussing manifest themselves.

#### Part I. Foundations

Week 1 (9/2). Class Introduction
Week 2 (9/9). An Introduction to Social Science
Week 3 (9/16). Good Questions and Good Answers
Week 4 (9/23). Principles of Research Design

#### Part II. Research Design and Data Collection

Week 5 (9/30). Experiments Week 6 (10/7). Quasi-Experiments Week 7 (10/14). Surveys and Polling Week 8 (10/21). Using Observational Data

# Part III. Data Processing and Analysis

Week 9 (10/28). Measurement and Data Description
Week 10 (11/4). The Basics of Bivariate and Multivariate Relationships
Week 11 (11/11). Regression
Week 12 (11/18). Selection Bias and Endogeneity
11/25. No Class: Thanksgiving Break
Week 13 (12/2). Factor Analysis
Week 14 (12/9). Categorical Dependent Variables

# **Detailed Course Schedule**

# Part I. Foundations

# Week 1: September 2. Course Introduction

# Required

- Medawar, Peter B. 1979. Advice to a Young Scientist. New York, NY: BasicBooks. Chapters 1–4, 6, 9, 11. Online.
- FNN, Chapter 1

#### Week 2: September 9. An Introduction to Social Science

#### **Readings:**

- FNN, Chapter 2
- King, Gary, Robert Keohane, and Sidney Verba. 1994. *Designing Social Inquiry*. Princeton, NJ: Princeton University Press. Chapter 1. Online.

#### Week 3: September 16. Good Questions and Good Answers

- Babbie, Earl. 2010. *The Practice of Social Research*. New York, NY: Wadsworth, Cengage Learning. pp. 19–23. Online.
- Lave and March, Chapters 1–2.
- Morton, Rebecca B. 1999. Methods and Models: A Guide to the Empirical Analysis of Formal Models in Political Science. New York, NY: Cambridge University Press. pp. 1–61. Online.
- Weinstein Jeremy, *Inside Rebellion: The Politics of Insurgent Violence*. New York, NY: Cambridge University Press. pp. 1–60. Online.

# Week 4: September 23. Principles of Research Design

#### **Readings:**

- Lave and March, Ch. 3.
- FNN, Chapter 3-4
- Tarrow, Sidney. 2004. "Bridging the Quantitative-Qualitative Divide." In *Redesigning Social Inquiry*, edited by Henry E. Brady and David Collier. New York, NY: Rowman & Littlefield Publishers, Inc. pp. 171–180. Online.
- Lieberman, Evan. 2005. "Nested Analysis as a Mixed-Method Strategy for Comparative Research" American Political Science Review 99(3): 435-52. Online.
- Druckman, Daniel. 2005. *Doing Research: Methods of Inquiry for Conflict Analysis.* Thousand Oaks, CA: Sage Publications. Chapter 11. Online.

# Part II. Research Design and Data Collection

#### Week 5: September 30. Experiments

#### **Readings:**

- FNN, Chapter 5, 9
- Banks, Antoine. 2009. "Is It Fear? Emotions Undergirding Group Conflict Attitudes" Working paper.
- Fearon, James D., Macartan Humphreys, and Jeremy M. Weinstein. 2009. "Can Development Aid Contribute to Social Cohesion After Civil War? Evidence from a Field Experiment in Post-Conflict Liberia," *American Economic Review: Papers and Proceedings*, 99(2): 287–291. Online.
- Miguel, Edward. 2004. "Tribe or Nation? Nation Building and Public Goods in Kenya versus Tanzania." World Politics 56(3): 327–362.

#### Week 6: October 7. Surveys and Polling

- FNN, Chapters 8, 10-11
- Humprheys, Macartan and Jeremy Weinstein. What the Fighters Say: a Survey of Ex-Combatants in Sierra Leone. Survey Instrument and Initial Report. Online

# Week 7: October 14. Quasi-Experiments

#### **Readings:**

- FNN, Chapter 6
- Druckman, *Doing Research*, Chapter 3. Online.
- Achen, Christopher. 1982. *The Statistical Analysis of Quasi-Experiments*. Berkeley, CA: University of California Press. Chapter 1 (pp. 1–15). Online.
- TBA

# Week 8: October 21. Using Observational Data

# **Readings:**

- FNN, Chapter 13
- Review materials from Week 6 on Quasi-Experiments
- Uppsala Conflict Data Program and the International Peace Research Institute (PRIO). "Armed Conflict Dataset Codebook." Online.
- Kreutz, Joakim. 2010. "How and When Armed Conflicts End: Introducing the UCDP Conflict Termination Dataset." *Journal of Peace Research* 47(2): 243-250. Online.

# Part III. Data Processing and Analysis

# Week 9: October 28. Measurement and Data Description

# **Readings:**

- FNN, Chapters 7, 14-15
- Human Security Report 2005, Part I, II, and IV

# Week 10: November 4. The Basics of Bivariate and Multivariate Relationships

- FNN, Chapter 16–17
- Granato, Jim., Ronald Inglehart, and David Leblang. 1996. "The Effect of Cultural Values on Economic Development: Theory, Hypotheses, and Some Empirical Tests." *American Journal of Political Science* 40(3): 607–631. Online

#### Week 11: November 11. Regression

#### **Readings:**

- FNN, Chapter 19
- Re-read Granato, Inglehart, and Leblang from Week 9
- Ross, Michael. 2001. "Does Oil Hinder Democracy?" World Politics 53: 325–361. Online.
- Curtis, James E., Douglas E. Baer, and Edward G. Grabb. 2001. "Nations of Joiners: Explaining Voluntary Association Membership in Democratic Societies." *American Sociological Review* 66(6): 783–805. Online.

# Week 12: November 18. Selection Bias and Endogeneity

#### **Readings:**

- Achen, Christopher. 1987. *The Statistical Analysis of Quasi-Experiments*. Berkeley, CA: University of California Press. Chapter 2 (pp. 17–72). Online.
- Nooruddin, Irfan. 2002. "Modeling Selection Bias in Studies of Sanctions Efficacy." International Interactions 28 (1): 57-74. Online
- Kang, Seonjou and James Meernik. 2005. "Civil War Destruction and the Prospects for Economic Growth." *The Journal of Politics* 67(1): 88-109. Online.
- Przeworski, Adam. 2006. "Is the Science of Comparative Politics Possible?". Prepared for publication in Carles Boix and Susan C. Stokes (eds.), Oxford Handbook of Comparative Politics.

#### November 25. No Class: Thanksgiving Break

#### Week 13: December 2. Factor Analysis

#### **Readings:**

- FNN, Chapter 18
- de Figueiredo, Jr., Rui J. P. and Zachary Elkins. 2003. "Are Patriots Bigots? An Inquiry into the Vices of In-group Pride." *American Journal of Political Science* 47(1): 171-188. Online

#### Week 14: December 9. Categorical Dependent Variables

- Kennedy, pp. 233–237. Online.
- Tessler, Mark and Michael D. H. Robbins. 2007. "What Leads Some Ordinary Arab Men and Women to Approve of Terrorist Acts Against the United States?" Journal of Conflict Resolution 51(2): 305–328. Online.

• Kam Cindy D. and Donald R. Kinder. 2007. "Terror and Ethnocentrism: Foundations of American Support for the War on Terrorism" *Journal of Politics* 69(2): 320–338. Online.