

**Syllabus for UHP 302 Section 9, “PoliSciFi”
Spring 2010
Christopher Butler, Associate Professor**

Contact Information

Main Lecture: Tuesdays and Thursdays from 9:30 AM – 10:45 AM
in Room 16, University Honors

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Office Hours: Tuesdays and Thursdays from 11:00 AM to 12:30 PM, and by appointment.

Class web page: <http://www.unm.edu/~ckbutler/PoliSciFi>

Course Description

Politics has often been an underlying theme of science fiction. Indeed, contemplating the “perfect society” (and perhaps revealing the faults of such perfection) through storytelling is older than science fiction itself. There is much we can learn of human nature and society writ large by thinking through characters in a story. But there is a flip side to this as well. One possibility of a predictive science of politics is embedded in science fiction.

Isaac Asimov—a professor of biochemistry more widely known as one of the giants of science fiction—coined the term “psychohistory” in his Foundation series of books. It presents the possibility of predicting the future of society with such accuracy that “we” can adjust events in order to choose which future “we” want. This science-fiction idea is something of a holy grail of modern social science. However, some have argued that, like cell phones from Star Trek, psychohistory is less fiction than reality. While reading through a significant portion of Asimov's Foundation series, we will discuss various tools for predicting human behavior, centering largely on game theory. We will also discuss the non-fiction model for predicting politics put forward by Bruce Bueno de Mesquita.

Readings

Asimov, Issac. *Prelude to Foundation*. Spectra.

Asimov, Issac. *Forward the Foundation*. Spectra.

Asimov, Issac. *Foundation*. Spectra.

Asimov, Issac. *Foundation and Empire*. Spectra.

Asimov, Issac. *Second Foundation*. Spectra. Joseph Henry Press.

Bueno de Mesquita, Bruce. *Predicting Politics*. The Ohio State University Press.

Siegfried, Tom. *A Beautiful Math: John Nash, Game Theory, and The Modern Quest for a Code of Nature*.

Student Learning Objectives

- Students will be able to recognize genuine social scientific theory embedded in science fiction.
- Students will demonstrate a foundational understanding of game theory.
- Students will conduct sound research on a current political situation, including relevant actors and their relative influence.
- Students will apply strategic thinking in a logically consistent manner to produce plausible near-term predictions regarding their chosen political situation.
- Students will communicate effectively, orally and in writing.

Assignments

There are **two formal papers** I expect you to complete during this class. The first paper is an *essay on psychohistory* that will integrate your understanding and in-class discussions on the Asimov readings. This essay must answer the question “What is psychohistory?” but must have an additional overarching topic. As examples: You may critique psychohistory; you may compare and contrast Asimov's vision of a science of humanity with what you've learned in other social science classes; you may discuss what assumptions about individual humans and about humanity might have to be true in order for psychohistory to be a theoretical possibility.

The other formal paper is making a prediction of your own. Three draft papers represent a unified research project in which you will make your own prediction regarding a current, real-world situation. The first component is a *topic statement* in which you provide me with a paragraph or so that outlines the real-world situation you would like to make your prediction about.

The next component is a *background draft* that answers the following questions: What is the current, real-world situation? Who are the actors in the situation and what is their primary motivation in it? Is the relative power among the actors the same, or do some have more power than others? Do they all have the same kind of power, or do they have different capabilities?

The next component in the research project is a *prediction draft* in which you use the insights of the models discussed in class and in the readings to make your own prediction regarding your chosen situation. The first section of this draft should be a revised version of your background draft. Your prediction need not be based explicitly on any specific model; however, your prediction paper must (1) discuss a number of possible choices that the actors could take and outcomes that the actors could reach, (2) offer an assessment of the probabilities that the outcomes could be reached—even if only a qualitative assessment, and (3) clearly identify the most likely outcome (i.e., your prediction) based on this analysis. Your prediction should include a time-frame within which you expect the outcome will be reached.

The *final paper* is the culmination of your research project. The simplest form of this paper is a revised version of the earlier drafts. If you choose this form, be advised that I expect it to be polished to the point of sparkling. You may choose a more creating form of writing for this final paper. This more creative form must build on the reality of the situation as researched in your background paper and be consistent with the logic in your prediction paper.

Due dates for each component are on the attached class schedule.

Coursework and Grading

Honors students may receive a final grade of A, CR, or NC. The following lays out my expectations for achieving these grades.

Attendance and Participation

Students are expected to attend all classes and participate *regularly* and *constructively* in discussions. Students missing more than three class periods will not receive a final grade of A.

Drafts and Papers

Students are expected to turn in first-submitted drafts of the papers following the course schedule. Short (one class period) extensions will be freely granted *if asked for*. Students not turning in all drafts and papers after their due dates (plus extensions) will not receive a final grade of A. Students failing to turn in all writing assignments will receive a grade of NC. If the Psychohistory paper is not A-level on the first submission, students will have opportunities to revise it until it is. The Background Draft should also be A-level when it is included in the Prediction draft; students will be given a grade on the Background Draft after its first submission and may revise it for re-grading before revising and resubmitting it with the Prediction draft. Students must meet A-level standards on both the Psychohistory paper and the revised Background to qualify for an A in class.

Course Schedule
 UHP 302: PoliSciFi
 Spring 2010

Tuesday	Reading	Discussion
Jan 19	Siegfried: Preface & Introduction	Roadmap of the Course
Jan 26	Siegfried: ch. 1	Games explained
Feb 2	Siegfried: ch. 2 DUE: Topic Statement	Games explained
Feb 9	Siegfried: ch. 3	Games solved
Feb 16	BdM: Preface & ch. 1	Predicting Politics
Feb 23	BdM: ch. 2	Interdependence
Mar 2	Siegfried: ch. 4 DUE: Background Draft	Evolution and Emotion
Mar 9	Siegfried: ch. 5	Neuroeconomics
Mar 16	<i>No class (Spring Break)</i>	
Mar 23	BdM: ch. 3	Black, Banks, and the Expected Utility Model
Mar 30	BdM: ch. 4	Postdiction I: The Cold War
Apr 6	BdM: chs. 5-7	Predictions of Prosperity and Democratization
Apr 13	Siegfried: ch. 5	Neuroeconomics
Apr 20	Siegfried: ch. 7	A Statistical Society
Apr 27	<i>TBA</i> DUE: Prediction Draft (via email)	
May 4	Siegfried: chs. 10-11	Quantum Games & Society's Temperature
May 11	DUE: Final Paper	

Thursday	Reading	Discussion
Jan 21	<i>Prelude to Foundation</i> through "Sacrorium"	Origins of psychohistory
Jan 28	<i>Prelude to Foundation</i> , remainder	Origins of psychohistory
Feb 4	<i>Forward the Foundation</i> , Parts 1 – 2	Development of psychohistory
Feb 11	<i>Forward the Foundation</i> , Parts 3 – 5	Development of psychohistory
Feb 18	<i>No class (Conference)</i>	
Feb 25	<i>Foundation</i> , Parts I – III	Psychohistory implemented
Mar 4	<i>Foundation</i> , Parts IV – V	Psychohistory implemented
Mar 11	<i>Foundation and Empire</i> , Part I	Psychohistory victorious?
Mar 18	<i>No class (Spring Break)</i>	
Mar 25	<i>Foundation and Empire</i> , Part II	Psychohistory victorious?
Apr 1	<i>Second Foundation</i> , Part I	Psychohistory undone?
Apr 8	<i>Second Foundation</i> , Part II	Psychohistory undone?
Apr 15	Siegfried: ch. 6 DUE: Psychohistory Paper	Cultural Diversity
Apr 22	Siegfried: chs. 8-9	Network Games & Sociophysics and El Farol
Apr 29	<i>No class (Conference)</i>	
May 6	Siegfried: Epilogue	The Science that Unifies Physics with Life?