Political Science 972: International Conflict
Draft Discussion Questions for Week 8
Part II: Rational Model of War

Background: A lot of this material is very technical. Some of that is necessary; some of it isn't. The core of rational choice theory is fairly simple and involves little more than high-school algebra; furthermore most of the core concepts can be used with little or no mathematical elaboration (e.g. as in most of the work of Thomas Schelling, who was awarded a Nobel Prize in Economics for his troubles...). In contrast, some of the deductive work, particularly in game theory, is quite mathematically sophisticated and requires quite a bit of background to get through (though in other cases, it merely *looks* impressive due to the use of an exceedingly verbose notation).

Here is my list of the core concepts from the rational choice approach that anyone should be able to understand; other lists may differ:

expected utility	zero-sum game	mixed-motive game
Prisoners' dilemma	Chicken game	mixed strategy
Tit-for-Tat solution	Nash equilibrium	Pareto optimality

Discussion Questions

1. What is the linkage between the various technical definitions of "rationality" and the non-technical uses of the term (obviously there are many of these). Are there areas where a technical discussion of "rational choice" is dealing with something quite different than "rationality" in the sense that a policy-maker or an historian might use the term. What (if any) are these differences?

Related question: How does the "rationality" of the formal theories differ from the "rational actor" model of Allison?

2. Following up on last week's discussion, under what circumstances is an individual or organization most likely to follow the rational choice model of rationality? Least likely? Note that the answer to this probably differs substantially depending on whether one is dealing with individuals versus organizations.

3. Agree or disagree with the proposition that the decision to go to war can be analyzed using the same assumptions used for models of micro-economic behavior. I.e. the mechanisms behind the decision to go to war are more or less the same as the mechanisms behind the decision about where to eat lunch or what brand of beer to buy.

4. Critique the assumptions behind the Prisoners' Dilemma model and the proposed ubiquity of the tit-for-tat solution. To what extent does the iterated PD game capture the core features of a situation potentially involving conflict? What are the key departures? To what extent does the tit-for-tat solution (and it's variants) seem plausible based on historical experience?

5. Is the decision to *start* a war governed by the same principles and payoffs as the decision to *end* a war, or are these different. To what extent is the assumption that these are the same embedded in rational choice models?

Closely related question: To what extent should the decision to go to war be considered a [war/no-war] question, versus a question of [war] as one of a much larger set of alternative policy decisions? Which approach seems to be more common in the literature? Which seems to more accurately describe actual behavior? (obviously that this may vary depending on circumstances)

6. Evaluate the potential differences between "objective" and "subjective" estimations of probability. To what extent does the fact that individual decisions are subjective render the formal theory tautological? What, if anything, are the systematic differences between objective and subjective probabilities? How can these probabilities be measured?

[More generally, there is now a *huge* experimental literature on this topic; with very few exceptions, it does not support the classical rational choice assumptions of expected utility maximization, though it has produced a number of quite robust empirical findings. "Prospect theory" is one of several names attached to this, "post-autistic economics" is a more sarcastic, though remarkably accurate, label one also occasionally encounters. Kahneman, one of the founders of the approach, also got a Nobel Prize)

7. What, if anything, do we know (or at least propose to be true) about war based on rational choice models that we could not—or would not—have figured out without using formal methods. Note that this question is difficult to figure out because of the counterfactual—most theorizing about war for the past half-century has had game theory or in the background even if game theory has not been formally applied.

8. While most rational choice applications define payoffs in terms of tangible objectives, Barry O'Neill has written a book-length rational choice treatment of the issue of "honor" (*Honor, Symbols and War*. University of Michigan Press, 1999). O'Neill provides numerous examples where this concept has played a major role in the initiation of violence, particularly among individuals. While the book has not been assigned, speculate on how this issue might be dealt with. More generally, how big a role do intangibles such as "honor" and "saving face" play in the applications that we did read.

9. Agree or disagree: rational choice theory and game theory were particularly applicable to the issue of nuclear war because nuclear war is such a simple situation that it can be dealt with using relatively parsimonious mathematical methods.

Related question: To what extent is a formal theory (e.g. the Chicken game) required to understand nuclear deterrence, and to what extent can it be understood informally.

10. A common defense of rational choice theory—if not necessarily the most effective defense—is that while it may be unrealistic in many of its assumptions, it is the only theory we've got. I.e. to build a formal theory of human behavior capable of complex mathematical deductions, you need to start with something that looks a lot like rational choice. Agree or disagree?—are there other plausible alternative approaches?