Book Proposal for Folk Game Theory

Strategic Analysis in Austen, Hammerstein, and African American Folktales

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Overview

I find "folk game theory" in African-American folktales, the musical *Oklahoma!* by Rodgers and Hammerstein, and the six novels of Jane Austen, arguing that these literary works explored strategic thinking with startling insight long before the academic discipline of game theory began in the 1950s. Folk game theory is developed by marginalized people: slaves, women, and ethnic minorities, for whom predicting the actions of other people and making the right move at the right time can have enormous consequences. The dominant have less need for game theory because from their point of view, everyone else is already doing what they are supposed to do. Game theory is not a hegemonic discourse but one of the original "weapons of the weak."

This book is the first to use a game-theoretic perspective to analyze a substantial contiguous body of literary work (as opposed to an assortment of stories or examples), in this case the six novels of Jane Austen. Austen's novels are among the most popular and beloved in the English language. Her explicitly theoretical perspective on human interaction presages much of game theory taught in textbooks today and often goes well beyond (for example, her argument that strategic partnership is the best foundation for intimate relationships). A game-theoretic sensibility generates new interpretations of Austen; for example, Austen's repeated examples of how simple pleasures (sweetmeats and olives) compensate for deepest sorrows (a broken heart) can be understood as illustrating her theory of preferences, in which any pain or pleasure can be reduced to a single commensurable utility.

The conspicuous absence of strategic thinking, what I call "cluelessness," is a favorite topic of folk game theory but has yet to be taken up by "modern" game theory. Clueless people tend to be members of the dominant race or sex who cannot think of subordinate others as having independent motivations and making their own decisions. Clueless people tend to obsess over status distinctions, including gender and racial distinctions. One of Austen's explanations for cluelessness is that not having to think about what another person is thinking is a mark of social superiority over that person; thus a superior might remain clueless about an inferior to sustain the status difference even though this prevents him from realizing how the inferior is manipulating him. Real-world examples of cluelessness I discuss include United States military actions in Vietnam and Iraq.

Market

Game theory, now familiar in the social sciences, is generally viewed by the humanities with more than a little suspicion. Humanistic approaches are not considered terribly relevant by most game theorists and social scientists. I hope to bridge this division by showing what game theory and the study of literature can offer each other. My book presents undiluted game-theoretic ideas but in accessible plain language. If anything, familiarity with Austen is more of a prerequisite for reading my book than familiarity with game theory. Of course, I also introduce each of Austen's novels for those unfamiliar with them.

For people interested in new applications of game theory, the topic of "cluelessness" is new and of course the application of game theory to literature is still novel. For people interested in new kinds of literary analysis, I hope that the book demonstrates how game theory can sometimes be useful. My previous book *Rational Ritual* (2001) has been used in courses in political science, sociology, and economics, computer science courses on "social software," and also courses in humanities fields such as classics and history. I hope that my current book might reach a similarly broad audience.

For teaching purposes, the book would be appropriate for graduate and undergraduate courses on new approaches to literature (for example, along with new approaches based on cognitive psychology and neuroscience). It would also be appropriate for introductory game theory courses, at both undergraduate and graduate levels, particularly for students outside social science departments or new to rational choice. The book introduces basic game theory ideas but also gives readers an idea of the current scope of game-theoretic explanations and new possible research directions. The book would also be appropriate for courses on social science and literature; for example, the American Political Science Association has an organized section, "Politics, Literature, and Film," with course syllabi at http://www.apsanet.org/politicsandlit/publications.html.

In manuscript form, the book has already been used twice in courses. Avinash Dixit used it in a game theory course taught in the American Economics Assocation's Continuing Education program in January 2011. This course was for teachers in undergraduate colleges, with the goal of bringing them up to the research frontier and enriching their teaching. The book was also used by Rohit Parikh at the City University of New York in an undergraduate game theory course (other books used for the course include *Signals: Evolution, Learning, and Information* by Brian Skyrms and *Convention* by David Lewis).

Other books

Thomas Schelling's *Strategy of Conflict* (1960) and *Micromotives and Macrobehavior* (1978) remain the standard for all "conceptual" (as opposed to "technical") game theory books. These books are both an agenda for researchers and an introduction for the curious general reader. Schelling's insightful examples come from everyday life and real-world situations. I hope that my book shows that equally insightful examples, as well as analysis, can be found in novels, folktales, and musical theater. For example, my book argues that the discussion of deterrence in the slave folktale "Flossie and the Fox" is one step more advanced than the "madman theory" of deterrence in *Strategy of Conflict*.

One recent attempt to bridge game theory with the humanities is *Game Theory and the Humanities: Bridging Two Worlds* (2011) by Steve Brams. This book, however, is mostly a compilation of previously published work, including his previous book *Biblical Games: Game Theory and the Bible* (1980, 2003). Also, Brams focuses on using game theory to analyze situations found in literature, such as Abraham's decision to sacrifice his son Isaac. My book argues that Austen, Hammerstein, and the African American folk tradition do not just provide "raw material" for game-theoretic analysis; rather, they themselves are game theorists engaging in strategic analysis and its theoretical development.

The books which are closest in spirit to mine are Paisley Livingston's *Literature and Rationality: Ideas of Agency in Theory and Fiction* (1991) and Jon Elster's *Alchemies of the Mind: Rationality and the Emotions* (1999). Livingston looks at how authors including Theodore Dreiser and Emile Zola interrogate the concept of rationality and purposive action. For example, although Dreiser explicitly states that people imitate each other out of animal instincts, even in *The Financier* invoking as a model the black grouper, a fish which camouflages itself to match its surroundings, Dreiser's characters, such as Carrie in *Sister Carrie*, imitate others with specific goals in mind. Similarly, Elster considers how writers such as Austen, Stendhal, and George Eliot "identify more complex causal chains by which emotions jointly with their psychic effects generate behavior." My book is of a similar spirit as Livingston's and Elster's, but my focus is on strategic thinking, on how people anticipate the actions of others, not individual rational choice and emotion. I also consider in detail an author's entire body of work, arguing that Austen's approach to strategic thinking is ambitious, comprehensive, and explicitly theoretical.

Recently scholars have started to use ideas from neuroscience to analyze literature. Why We Read Fiction: Theory of Mind and the Novel (2006) by Lisa Zunshine argues that the purpose of fiction is to exercise the reader's "theory of mind," her ability to keep track of, for example, one person's knowledge of what a second person knows about a third. Why Do We Care about Literary Characters? (2010) by Blakey Vermeule similarly argues that fiction "pays us back with large doses of really juicy social information." Theory of mind is essential to strategic thinking (to predict another's action, you have to "enter" into her mind and understand what she knows about others) but is just one part of it. Coming up with good strategic actions requires additional cleverness and creativity; for example, folk game theory analyzes how to take advantage of people with poor theory of mind skills. Strategic action requires estimating not just what people know but what they will do. Zunshine and Vermeule note that Austen is particularly insightful on how her characters understand the minds of each other. My book argues that Austen's insights were not just about sensing or understanding, but action: why people take the actions they do and how you should choose your action anticipating theirs.

In *The Body Economic: Life, Death, and Sensation in Political Economy and the Victorian Novel* (2006), Catherine Gallagher finds that writers such as Charles Dickens and George Eliot were influenced by political economists of the time including Malthus and Bentham, particularly their emphasis on bodily sensations (for example, in Bentham's utilitarianism, an action's utility is derived from its resulting pains and pleasures). My book argues the other direction: Austen, Hammerstein, and the African American folk tradition were consciously engaged in what we would now call social science.

Finally, compared to my earlier book, *Rational Ritual: Culture, Coordination, and Common Knowledge* (2001), my present book asks more of the reader, asking her to dive into Austen's six novels and Hammerstein's script. However, I hope that the effort is rewarded. *Rational Ritual* applies a single idea (common knowledge generation) to many social phenomena including rituals and advertising, while my present book recovers an entire theory of human action in the works of Austen and others, a theory which predates and in several aspects supersedes modern game theory.