

Jane Austen, Game Theorist. By Michael Suk-Young Chwe, Princeton University Press, Princeton, New Jersey, 2013, 276 pages, \$35.00.

When Frank Churchill rescues Harriet Smith from a menacing band of gypsies (Book III, Chapter 3, of Jane Austen's novel *Emma*), Emma Woodhouse, the heroine, wonders,

"Could a linguist, could a grammarian, could even a mathematician have seen what she did, have witnessed their appearance together, and heard their history of it, without feeling that circumstances had been at work to make them peculiarly interesting to each other?"

To the best of my knowledge, this is the only mention of a mathematician in any of Austen's works. It is safe to say that it never crossed Austen's mind that any form of mathematics would be at all helpful in understanding her novels, still less that her novels would be a significant contribution to mathematics. However, Michael Chwe's new book *Jane Austen, Game Theorist* argues strongly for both of these claims, especially the latter. According to Chwe, himself a game theorist at UCLA, "Jane Austen systematically explored the core ideas of game theory in her six novels. . . . Austen is a theoretician of strategic thinking. . . . Austen's novels . . . are themselves an ambitious theoretical project, with insights not yet superseded by modern social science. . . . Austen's novels are game theory textbooks."

On the face of it, Austen seems a strange choice for game-theoretic analysis. Plots, plans, strategies, and manipulation play a central role in many literary works: *Othello* is dominated by Iago's plot; *Dangerous Liaisons* by the plots of Valmont and the Marquise de Merteuil; the Jeeves and Wooster stories by the plans, ingenious or ridiculous, of Jeeves and Wooster; the *Harry Potter* series by the plots and counterplots of Voldemort, Dumbledore, Harry, and the other characters. (A complete game-theoretic analysis of the seven *Harry Potter* volumes would be a major undertaking.) By contrast, few of Austen's characters engage in sustained planning or plotting of any complexity. THIS PARAGRAPH COULD BE CUT WAY DOWN:

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There are two major exceptions (and some minor ones, particularly Lucy Steele in *Sense and Sensibility*). Austen's early novel *Lady Susan* (published long after her death) centers around the plots of the title character, [[DELETE IF WE USE THE SHORT VERSION OF THE PRECEDING PARAGRAPH a schemer in the spirit of the Marquise de Merteuil, and indeed possibly modeled on her]]. More importantly, the first third of *Emma* centers around Emma's attempts to create a match between Harriet Smith and Mr. Elton, the social-climbing village vicar. In some respects, however, this is an exception that proves the rule. First, Emma's plan is hopeless from the start, as there is no possibility that Mr. Elton will marry an illegitimate girl with no fortune. Second, Mr. Knightley, the voice of proper thinking throughout the novel, strongly disapproved of the plan, and Emma herself deeply regretted it, not merely because it failed, but because such games should not be attempted:

"It was foolish, it was wrong, to take so active a part in bringing any two people together. It was adventuring too far, assuming too much, making light of what ought to be serious, a trick of what ought to be simple."

Chwe's analysis of the Austen novels accordingly focuses for the most part on comparatively small-bore manoeuvrings. Unlike many who study applications of game theory to literature, Chwe does not expend much effort applying game-theoretic tools, such as preference matrices and decision trees, to the novels. A couple of such analyses serve as illustrations in an early chapter, but they are not very deep or enlightening. Rather, Chwe's primary concern is to argue that Austen herself was deeply engaged with fundamental concepts of game theory, such as choice, preference, and strategy; that she and her characters discuss these concepts in strikingly abstract and general terms; that Austen's view of these issues largely coincided with the standpoint taken in game theory; and that

BOOK REVIEW

By Ernest Davis

Austen had insights into these issues that have not yet been incorporated into the mathematical theory. Chwe gives a detailed, careful analysis of many aspects of the novels.

He studies the ways in which Austen's characters make choices, infer one another's preferences, resolve conflicting preferences, and construct plans. He compares choices based on the characters' preferred outcomes to choices driven by emotion, instinct, habit, rules, or social pressure, and argues that Austen consistently favors choosing according to preferences. He has a lengthy analysis of "cluelessness," the inability to realize that someone else might have different preferences; he considers this one of Austen's major conceptual advances. He discusses cases in which strategic planning is disadvantageous.

Chwe's very readable book is addressed to a general audience; it includes both an introduction to game theory and full synopses of the six major novels. He raises many diverse points of comparison, including strategic elements in folk tales, and strategic planning or cluelessness in international relations. He has extensive discussions of psychological and sociological studies that bear on the issues of game theory. His observations are often insightful and thought-provoking.

Chwe's readings of specific incidents often seem to me off-base, however. Two particular instances are from *Pride and Prejudice* (with which Chwe seems to have particular trouble, remarking himself that the novel fits his theory less well than the others). "In Austen's novels," he writes,

"people calculate all the time without the slightest intimation that calculation is difficult, 'cold', or unnatural. . . . Since Mr. Collins is heir to Mr. Bennet's property, after he is engaged to her daughter Charlotte, Lady Lucas 'began directly to calculate, with more interest than the matter had ever excited before, how many years longer Mr. Bennet was likely to live.' The rapidity of her calculation is an expression of her joy."

This is not a good instance of Chwe's general point, that Austen does not disapprove of calculation. On the contrary, Lady Lucas's eager anticipation of the death of a friend and neighbor is contemptible, and Austen intends it to be so. To my mind, indeed, this is one of the few cases in which Austen lets satire get ahead of plausible characterization; such a thought would be appropriate to an intensely selfish character, but hardly to Lady Lucas, who otherwise seems harmless.

Second, and more seriously, Chwe suggests tentatively that the elopement of Elizabeth Bennet's sister Lydia might be an instance of successful strategic planning on Lydia's part. This reading is absolutely impossible. Austen clearly agrees with Lydia's entire family in considering her choice of Wickham as foolish in the extreme. What Lydia can reasonably expect is that Wickham will first seduce and then abandon her, leaving her in the status of a "ruined" woman, whatever exactly that entailed in that society at that time. The one

extenuating circumstance, in Elizabeth's view, is that Lydia was genuinely fooled; otherwise, it would have been a "scheme of infamy." She is saved from ruin only because Darcy makes an extreme effort, first to find Wickham, and then to bribe him into marrying her, which she has no reason to expect will happen.

Austen's view of choice and preference is also less well aligned with the axioms of game theory than Chwe supposes. Chwe makes much of Fanny Price's view (in *Mansfield Park*) that, in rejecting Henry Crawford's marriage proposal, it should suffice for her to say that she cannot like him; that is, her preference trumps every other consideration. Fanny's decision, however, is also motivated by Crawford's bad character. In other cases, it is not clear that personal preference should be the deciding factor. As Mr. Knightley says to Emma, "You would have chosen [a wife] for [Mr. Elton] better than he has chosen for himself." But there is no indication that Mr. Elton is at all unhappy with Mrs. Elton, still less that he would have preferred Harriet Smith. Mr. Elton's preference is viewed as faulty, not as absolute.

An even more telling quote from Mr. Knightley on the subject of choice and preference appears earlier in the book: "There is one thing, Emma, that a man can always do, if he chooses, and that is, his duty; not by manoeuvring and finessing but by vigor and resolution." That is, responsible choice cannot entirely follow personal preferences; one's duty is also a factor. Duty is not one of the competing factors in choice that Chwe considers as an alternative to preference. Chwe argues at one point that any such consideration can be integrated as an aspect of one's preferences. However, though that saves the game theory calculus, it throws out the entire argument that in Austen choice reflects personal preference rather than such other considerations as rules, emotion, and social pressure, as all of those can equally be incorporated into preference. One can view game theory as a neutral calculus that operates over preferences however they are defined, or one can view game theory as favoring certain kinds of considerations over others, but one cannot have it both ways.

Beyond these specific errors lies a more general and pervasive misunderstanding. In the final analysis, Austen places much more value on ethical behavior than on strategic planning. A vivid example is the character of Mrs. Jennings, a vulgar, silly woman, in *Sense and Sensibility*. At the beginning of the novel, Elinor, one of the heroines, has no use for Mrs. Jennings, and Marianne, the other, can't stand her. By the end of the novel, Mrs. Jennings is just as vulgar and silly (though she does get off a zinger against another character for cluelessness), but she has earned the love and respect of both sisters through her good heart and unfailing generosity. When it is important, she does the right thing, and she needs neither strategy nor insight nor sagacity to figure out what the right thing is.

Moreover, Austen's right-thinking characters often decry the use of strategies and cleverness in human interactions. I have already quoted Emma's repentant view of her own strategy and Mr. Knightley's disapproval of "manoeuvring and finessing." Here is Mr. Darcy: "Undoubtedly there is meanness in all the arts which ladies sometimes condescend to use for captivity. Whatever bears affinity to cunning is despicable." Mr. Knightley again: "Mystery; Finesse—how they pervert the understanding! My Emma, does not every thing serve to prove more and more the beauty of truth and sincerity in all our dealings with one another?" POSSIBLE TO DELETE THIS PARAGRAPH?

Chwe's claim that Austen's purpose was to write a game theory textbook is far-fetched. If one does not accept this theory, he argues, "one would have to explain the inclusion of many particular and unneces-

sary details" relating to preferences, choices, and strategies. It seems to me that the explanation is, in large part, selection bias THAT CHWE'S ARGUMENT ARISES LARGELY FROM SELECTION BIAS: This is what a game theorist notices in reading the novels. After all, one could assemble, as undoubtedly someone has, an equally impressive collection of quotations and incidents in which literature, music, and art are involved, with equally many "particular and unnecessary details"; one could then argue just as plausibly that Austen intended to write a textbook about the relation of the arts to character. Here Chwe perhaps falls victim himself to cluelessness; if *he* had written the novels, it would have been with the intention of writing a game theory textbook.

When an intelligent, knowledgeable reader with a new distinctive viewpoint engages intensely with a great work of literature, the results are usually worthy of attention. There is much that is valuable in Chwe's book. However, the central thesis is a half-truth; the issues considered in game theory are only a small part of Austen's rich, humane view of human interactions.

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