Reasoning Along Different Lines: Some Varied Roles of Rationality in Negotiation and Conflict Resolution

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Jonathan R. Cohen†

I. INTRODUCTION

Much of our academic understanding of negotiation and conflict resolution has come through the lens of game theory. Game theory, like its parent discipline economics, typically builds upon the assumption that people are rational. Indeed, for many, the assumption of rational behavior lies at the core of the game theoretic approach. Furthermore, the meaning of "rational" that is applied within game theory is typically the same as that used within other areas of economics: each person is presumed to act so as to make himself or herself as well off as possible. Often this model goes by the label of utility maximization.

This utilitarian model was developed primarily to study independent decision making, such as when a shopper in a supermarket chooses which items to buy or when a person (e.g., Robinson Crusoe) chooses how to divide her/his time between labor and leisure.


The shopper may care about what other shoppers purchase and a person may care about how others allocate their time, but this is not likely the case. In contrast, game theory, by definition, concerns interdependent decision making. \(^3\) Two questions arise: (i) does reasoning play roles in interdependent decision making beyond the scope of the utilitarian model, and (ii) if so, what are those roles and what implications do they have for the study and practice of negotiation and conflict resolution?

I argue here that reasoning plays varied roles in interdependent decision making and that this variety has important implications for the study and practice of negotiation and conflict resolution. I begin by examining the limited role of reasoning within the utilitarian model. I then address three types of reasoning largely omitted from that model, namely, strategic reasoning, ethical reasoning and socially-oriented reasoning. In negotiation and conflict resolution, reasoning does occur and should occur along many lines. \(^4\) As students and practitioners of negotiation and conflict resolution, we need to embrace that complexity.

II. REASONING AS UTILITY MAXIMIZATION

The utilitarian model describes reasoning in two ways: it describes both what reasoning is and what it is not. The affirmative picture is that reason ranks various alternatives and helps one to select the alternative which one expects will give one the most utility. For example, in the supermarket setting, a hypothetical consumer compares different, affordable baskets of goods and picks the basket that s/he prefers most. At root, such reasoning may be understood as the capability repeatedly to make pair-wise comparisons of different alternatives. \(^5\) Within this model, a person would be irrational if s/he

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3. Intrapersonal conflict has been studied through game theory, often by recasting an intrapersonal conflict as an interpersonal conflict between different (e.g., current and future) selves. See Thomas C. Schelling, The Intimate Contest for Self-Command, in 60 PUB. INTEREST 94 (Summer 1980) and Jon Elster, ULYSSES AND THE SIRENS: STUDIES IN RATIONALITY AND IRRATIONALITY (1984).

4. Some distinguish between the concepts of reason, reasoning, and rationality. See, e.g., JOHN RAWLS, POLITICAL LIBERALISM 48 (1993). However, for the purposes of this paper such distinctions are unimportant, and I use these terms interchangeably.

5. The economist's construction of a utility function is premised upon simple pair-wise comparison. See, e.g., KENNETH J. ARROW and F.H. HAHN, GENERAL COMPETITIVE ANALYSIS 75 (1971). Some have debated whether a utilitarian model of rationality should require a consumer's choices to exhibit certain consistency conditions, such as transitivity (i.e., if a consumer picks A in a choice between A and B, and B in a choice between B and C, s/he must pick A in a choice between A and C) and menu-independence (i.e., if a consumer picks element A from set T, and S is a subset of T
chose an alternative which s/he expected would give her/him less utility than a different alternative. Although the term “utility” has meant different things to different scholars, the role of reasoning within the utilitarian model is fairly clear. If I don’t like oranges but I do like apples, and if oranges and apples cost the same, it would be irrational for me to buy an orange when I could have bought an apple.

By specifying what reasoning is, the utilitarian model also takes positions on what reasoning is not. In the utilitarian model, reason does not “apply” to evaluating the tastes one holds. As Hume expressed, “Tis not contrary to reason to prefer the destruction of the whole world to the scratching of my finger.” More broadly, the utilitarian model does not address reasoning about concerns other than how to maximize one’s utility. This does not mean that the utilitarian model envisions that people must be entirely selfish. Jane might give Bob a gift if Jane enjoys seeing Bob happy, but only to the extent that Jane enjoys seeing Bob happy.

III. Strategic Reasoning

Although not inherently at odds with the utilitarian model, strategic aspects of reason are often far more complex than in the utilitarian model. In the standard utilitarian example of a shopper selecting goods in the supermarket, the shopper needs no particular creativity, subtlety of thought, or communication skills. One cannot outmaneuver a mango, outguess an apple, or persuade a cantaloupe.


6. The early utilitarian Bentham defined utility in terms of pleasure and pain. See Jeremy Bentham, An Introduction to the Principles of Morals and Legislation 1 (J.H. Burns ed., Clarendon Press 1996) (1780). Two popular current interpretations of utility are (a) well-being (i.e., how well off the individual is) and (b) choice-saliency (i.e., the extent to which an individual achieves his/her goals, irrespective of what those goals are.) See, e.g., Sen (1994), supra note 2, at 385-386.


8. David Hume, A Treatise of Human Nature (Clarendon Press 1978) (1740) at 416. See also id. at 415 (noting that “Reason is, and ought to be the slave of the passions, and can never pretend to any other office than to serve and obey them.”). For a recent evaluation of purely instrumental views of reasoning, see Robert Nozick, The Nature of Rationality 133 (1993).

Rather, the shopper need only compare different possible bundles of goods and, given her/his budgetary constraints, choose the bundle that s/he likes the most.\textsuperscript{10} In contrast, in negotiation and conflict resolution, strategic aspects of reasoning, including creative, subtle, and communicative aspects of reasoning, are often crucial.

Take as an example two cars stopped at an intersection facing perpendicular to one another. Who will cross first? If I don't much care which of us crosses, I may wave my hand to gesture for you to proceed. However, if I wish to cross first, likely I will not “wave myself through” with an analogous gesture.\textsuperscript{11} Instead, I might honk my horn (to ensure that you are looking at me), close my eyes, and accelerate. Even in an example as simple as two stopped cars at an intersection, creative (seeing a solution involving self-commitment), subtle (reasoning about how to commit oneself only after one knows the other driver is aware that one is committing oneself) and communicative (honking) aspects of strategic reasoning may play important roles.

Perhaps no scholar has done more to explore the creative aspects of strategic reasoning than Thomas Schelling. Consider Schelling's example of two parties negotiating over the price of a house, where both parties are aware of the other side's reservation price—$16,000 for the seller and $20,000 for the buyer.\textsuperscript{12} What should a party do? Schelling suggests that the buyer might write a contract with a third party that if he (the buyer) pays more than $16,000 for the house he (the buyer) will pay the third party an amount greater than the difference between the two reservation prices (i.e., $4,000 or above). With this contract in hand, the buyer can then approach the seller and credibly state that he will pay no more than $16,000 for the house. Although counter-intuitive, self-commitment can be strategically advantageous in distributive negotiations.

Even where parties' choices are well-defined and the consequences of different courses of action are clear, strategic reasoning
can still involve much subtlety. Consider two examples commonly
given to students in an introductory game theory course: the one-shot
prisoner’s dilemma and the finitely-repeated prisoner’s dilemma.13
Even if students recognize that, according to a utilitarian analysis, in
one-shot prisoner’s dilemma both prisoners should confess,14 many
students do not appreciate at first blush that in finitely-repeated pris-
oner’s dilemma, according to a utilitarian analysis coupled with an
argument using the logic of backward induction, both prisoners
should confess throughout the game.15 Deciding which basket of
goods to select in a supermarket requires no particular subtlety of

13. Although the motivating story can be told in different ways, I use the follow-
ing description from, Nozick, supra note 8, at 50:
[A] sheriff offers each of two imprisoned persons [involved in the same crime
and separated from one another as they await] trial the following options . . .
If one prisoner confesses and the other does not, the [confessor] does not go to
jail and the [other prisoner] will receive a twelve-year sentence; if both con-
fect, each receives a ten-year [sentence]; if both do not confess, each receives
a two-year sentence.
“One-shot” prisoner’s dilemma means that the prisoners play this game only once
against one another. “Finitely-repeated” prisoner’s dilemma means that the prisoner-
s play this game a known, finite number of times against one another. Diagram-
matically, one-shot prisoner’s dilemma can be represented by a two-by-two matrix
showing possible strategies and outcomes, where a numbered pair represents how
many years in jail Prisoners I and II receive, respectively.

<table>
<thead>
<tr>
<th></th>
<th>Don’t Confess</th>
<th>Confess</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t Confess</td>
<td>2, 2</td>
<td>12, 0</td>
</tr>
<tr>
<td>Confess</td>
<td>0, 12</td>
<td>10, 10</td>
</tr>
</tbody>
</table>

14. Under the utilitarian logic, each prisoner would reason as follows. “If the
other prisoner does not confess, then if I confess I will go free, but if I don’t confess I
will receive a two-year sentence, so I should confess. If the other prisoner does con-
fect, then if I don’t confess I will receive a twelve-year sentence, but if I do confess
then I will receive a ten-year sentence, so I should confess. Hence, as no matter what
the other prisoner does I will be better off confessing, I will confess.” Note that as the
game is symmetric, both players will reason similarly.

15. In finitely-repeated prisoner’s dilemma, the parties play the game a known,
finite number of times (n) against one another. What is a player’s optimal strategy?
Under the utilitarian model, a player might reason as follows: “Imagine it is the last
(nth) round. No matter what has occurred earlier, the optimal strategy in this last
thought by the consumer, but recognizing the logic of backward induction does.

Communication is a third aspect of strategic reasoning in negotiation and conflict resolution which is largely overlooked by the utilitarian model. How should one interpret what others say and do? How will others interpret one’s statements and actions? Sending and interpreting signals permeates virtually all negotiation and conflict resolution, and often such activities are quite complex.\(^{16}\) Consider, for example, the statement by Sheik Ahmed Yasin, leader of the Palestinian group Hamas, the day after his recent release from an Israeli prison:

> [Although a permanent reconciliation with Israel is not permitted under Islam, [if] if Israel withdraws completely from the West Bank and the Gaza Strip and it removes all of its settlements, I will make a truce with it.\(^{17}\)

As interesting as Yasin’s remark were the interpretations given to it:

> Palestinian officials and commentators heard a politically shrewd ambiguity in Yasin’s remarks today. The sheik’s careful language, they said, indicated that he could become a force for moderation within Hamas . . . “He’s willing to deal,” said Ziad Abu Amr, an academic expert on Islamic movements and a Palestinian legislator from Gaza. “He’s a little ambiguous, this is his political style, he doesn’t want to commit if nothing is offered.”\(^{18}\)

Virtually all negotiation and conflict resolution involves communication. Indeed, interpreting communication as minimal as silence—or perhaps especially communication as minimal as silence—often requires much reasoning.

\(^{16}\) Economists have offered some important insights into certain aspects of communication in negotiation. See, e.g., A. Michael Spence, Market Signaling (1974) and Joseph Farrell and Robert Gibbons, Cheap Talk Can Matter in Bargaining, 48 J. Econ. Theory 221 (1989). However, such important insights have only addressed rudimentary aspects of communication.


\(^{18}\) Id.
Ethical reasoning frequently plays central roles in negotiation and conflict resolution that are difficult, if not impossible, to address within the utilitarian model.\textsuperscript{19} For example, ethical reasoning can be used to generate possible solutions to conflicts. Parties who could not otherwise agree on the price for a transaction may use a fair market appraisal to set that price. Ethical reasoning may also provide general methods of working toward agreement. Learning to "stand in the other person's shoes" requires no advanced philosophical training, but may be central to much negotiation and conflict resolution. However, ethical reasoning can also prevent parties from reaching an agreement. A party may refuse a settlement that it believes to be unfair even if this refusal functions to the party's detriment.\textsuperscript{20} More generally, differing understandings of what is fair or just can be central barriers to resolving a conflict.\textsuperscript{21}

Ethical reasoning also constrains how people conduct themselves in negotiation and conflict resolution. If, following Hume, it is not contrary to reason to prefer the destruction of the world to the scratching of one's finger, then surely it is not contrary to reason to lie to, deceive, or threaten one's counterpart in a negotiation (assuming it would be to one's benefit). Yet, many negotiators feel ethical

\textsuperscript{19} Some may defend the utilitarian model by arguing that some of the topics which I discuss below, such as a person's ethical concerns or concerns for how her/his actions will affect her/his group, should not be called "reason," but are simply tastes which, like all other tastes, should be included in that person's utility function. Although it may be beyond my ability to convince those firmly wedded to the utilitarian model to change their position, let me offer two reasons why I do not take that view. First, recasting ethical and socially-oriented reasoning as mere tastes tends to make the concept of utility so loose that it loses much of its meaning. If one defines utility \textit{ex post} to mean whatever factors a person might consider in her/his choice, then utility becomes an empty concept. Second, as discussed below, by failing to recognize the different roles that reasoning plays in choice, we lose our ability to understand those complex settings where differing lines of reasoning pull people in different directions.


\textsuperscript{21} \textit{See Robert H. Mnookin and Lee Ross, Introduction, in Arrow supra note 20,}
constraints. A merchant may painstakingly avoid disclosing a product's weaknesses, while refusing to make statements about a product which s/he knows to be false.

V. SOCIALLY-ORIENTED REASONING

Within the utilitarian model, a person is viewed as rational if, and only if, that person asks, "What is best for me?" But what if a person also asks, "What is best for us?", "What is best for my family?" or, "What is best for my community?" Should such a person be called irrational?

The prisoner's dilemma is a helpful example here as well. In the prisoner's dilemma, what I should do from my individualistic viewpoint (confess) differs from what we should do from our collective viewpoint (remain silent). Hence, in the prisoner's dilemma, the prisoner is pulled in opposite directions depending upon which identity—individual or collective—s/he adopts. Is it more rational for the prisoner to decide what to do by answering the question, "What should I do?" (leading to confessing) or by answering the question, "What should we do?" (leading to silence). Both questions are perfectly rational. An important aspect of the dilemma comes from the prisoner's (and the prisoners') choice of what line of reasoning to use. This makes the prisoner's dilemma a true dilemma, and not merely a case of socially sub-optimal behavior, for depending upon what line of reasoning the prisoner takes, s/he is pulled in different directions.

Should one call this the prisoner's dilemma or the prisoners' dilemma? That tension is central to the dilemma.

The prisoner's dilemma is noteworthy because it illustrates a class of examples where, if each party does what is best from an individualistic perspective, then both parties will be worse off than if each had followed a different course of action (such as when two countries, caught in an arms race, stockpile arms rather than jointly limit

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23. Another interesting line of reasoning leading to a cooperative behavior in one-shot prisoner's dilemma is suggested by Robert Nozick, by way of analogy to Newcomb's problem. Roughly put, this reasoning goes as follows. If I believe the other player is identical to myself, if I choose to confess, then I can expect the other player to confess, and I will spend many years in jail. However, if I choose to remain silent, then I can expect the other player to remain silent (s/he is, after all, identical to myself), and I will spend few years in jail. Accordingly, I should choose to remain silent. See Nozick, supra note 8, at 41.

24. See Sen, supra note 22.
weapon production). However, the prisoner's dilemma is also noteworthy because people often do not follow the logic of the utilitarian model. In simulated trials of both one-shot and finitely-repeated prisoner's dilemma, players often remain silent where utilitarian theory predicts that all should confess. Rather than dismissing the large measure of cooperation observed empirically as "irrational," we would do better to recognize that in the prisoner's dilemma, as in much negotiation and conflict resolution, different lines of reasoning can pull the same person in different directions.

Getting parties to see a situation from a collective viewpoint may often be essential to successful negotiation and conflict resolution. If each party thinks only about what is best for himself or herself, then finding a common ground may be quite difficult. But, if parties can also learn to ask what makes sense from a collective perspective, settlements may abound. Further, just as an individual can reason strategically to find innovative solutions to achieve her/his ends, so can groups. Howard Raiffa suggests using an ideal benchmark of the full, open and truthful exchange (FOTE) of information to judge communication within negotiations. Suppose two parties are engaged in a negotiation where both sides believe that each will be made better off if both play FOTE, but where each side also fears being exploited if it plays FOTE but the other side does not. What might they do? Both sides may sign a contract with a third party (or even a contract with each other) that if either side is found to have violated the FOTE condition, the violator will be subject to a large penalty. Groups, like individuals, can be made better off through self-commitment.

25. See Robyn M. Dawes and John M. Orbert, The Benefit of Optional Play in Anonymous One-Shot Prisoner's Dilemma Games, in Arrow, ed., supra note 20, at 64 ("Studies involving single plays of prisoner's dilemma . . . have demonstrated rather high levels of cooperation").

26. Social psychologists Ross and Ward report an interesting experiment conducted by Ross and Samuels on finitely-repeated (seven round) prisoner's dilemma. When the game was introduced to subjects as the "Community Game," approximately two thirds cooperated, whereas when the otherwise-identical game was introduced as the "Wall Street Game," approximately one third cooperated. See Lee Ross and Andrew Ward, Naive Realism in Everyday Life: Implications for Social Conflict and Misunderstanding (1995) (Working Paper No. 48: Stanford Center on Conflict and Negotiation, Palo Alto, CA), citing Lee Ross and S.M. Samuels, The Predictive Power of Personal Reputation vs. Labels and Construal in the Prisoner's Dilemma Game (1993) (unpublished manuscript, Stanford University). This result is suggestive of how different lines of reasoning can lead to different actions.


I do not mean to suggest that reasoning from an individualistic perspective is inherently bad, while reasoning from a collective perspective is inherently good. A person can be too self-sacrificing and neglect her/his own needs for the good of the group. Further, I do not mean to suggest that people do or should engage in only one type of reasoning. Selecting which type of reasoning to use is not an either-or choice. While reasoning can help an actor to pick the action which s/he believes will make her/him as well off as possible, reasoning can also help an actor to determine what is fair or just or to look at a situation from others' perspectives.

Rather than denying the tensions produced by differing lines of reasoning, we should embrace them. Most good judicial opinions address both parties' arguments. On a personal level, embracing tensions produced by different lines of reasoning may be quite important. People commonly recognize that they are both individuals and members of groups. As Rabbi Hillel expressed roughly two millennia ago, "If I am not for myself, who will be for me? If I am only for myself, what am I?" Different lines of reasoning may pull one in different directions. Generally, this is not seen as a sign of irrationality, but of maturity.

Once we recognize that (rational) people use not just one, but many types of reasoning, a variety of new questions emerge: what leads people to use the types of reasoning they do; what causes a party to switch from focussing on one line of reasoning and turn toward another; what causes one line of reasoning to prevail over other lines; how are conflicting lines of reasoning reconciled, and so on. Further, asking such questions allows us to consider rich contextual information generally neglected by analysis within the utilitarian model but important to negotiation and conflict resolution. If the prisoners in the prisoner's dilemma are near-total strangers, one might expect them to engage in little collectively-oriented reasoning, but where they have worked together for years as partners in crime, one might expect collectively-oriented reasoning to be more likely.29 Where one party does eighty percent of a project's labor and another party does twenty percent, a fair division of the surplus may be eighty-twenty rather than fifty-fifty. Raising one's hand may mean one thing in a classroom, but quite another at an auction. In negotiation and conflict resolution, such contextual information is often critical.

29. I thank Thomas Schelling for this example.
VI. Conclusion

The utilitarian model was developed primarily to describe settings of independent decision making. When a person makes decisions in an independent context, strategic, ethical and socially-oriented reasoning are often inconsequential. However, in the inherently interdependent settings of negotiation and conflict resolution, these sorts of reasoning play critical roles.

As scholars, we are called upon to analyze the varied roles that reasoning plays in negotiation and conflict resolution. Studying negotiation and conflict resolution is much like studying a landscape. A landscape contains a great deal of visual information. When looking at a landscape, where should one focus? What is central and what is peripheral? The utilitarian model suggests that we view that landscape by tracing out one particular element: a utilitarian view of reasoning. I have argued here that when examining that landscape, we should trace out not one, but multiple lines of reasoning. Sometimes one line of reasoning may dominate. At other times we may find different lines of reasoning woven together to form a decision. We should embrace that complexity.

As practitioners, we are called upon to put the recognition that reasoning often has—or could have—varied roles in negotiation and conflict resolution to beneficial use. At times, we may encourage parties to view situations from both individualistic and collective perspectives. At times, we may initiate a discussion about what is fair or just when such a discussion has been absent. If, when sketching a picture along reason's lines, we find that two lines of reasoning are in deep tension (e.g., what I want to do from an individualistic perspective differs strongly from what would be best for me to do from a collective perspective), perhaps we can find ways to resolve that tension (e.g., devise an incentive structure to align individualistic interests with collective interests).

I do not mean to suggest that the types of reasoning which I have discussed (i.e., utilitarian, strategic, ethical and socially-oriented reasoning) are exhaustive of the types of reasoning used in negotiation and conflict resolution. For example, to the extent that parties' preferences change during conflict (e.g., during the course of war one learns to hate one's adversary more), reasoning about preference change—also a topic beyond the scope of the utilitarian model—may be important for the study of negotiation and conflict resolution. Further, I do not mean to suggest that negotiation and conflict resolution
can be understood solely through the lens of reason. Rather, my argument has been that much can be learned about negotiation and conflict resolution by recognizing reason's different lines, and that, in these inherently interdependent settings, strategic, ethical and socially-oriented reasoning are particularly important. As analysts and practitioners of negotiation and conflict resolution, we have much to gain by recognizing that reasoning does and should occur along not just one, but many lines.