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## Comments on Plott and on Kahneman, Knetsch, and Thaler\*

Being an anthropologist, and feeling a bit more like a participant observer than a native in these marvelously theological proceedings,<sup>1</sup> I think I will start my comments with a joke about the market for brains in Papua New Guinea. That is where they practice cannibalism, and in Papua New Guinea every encounter with another person can be represented as a choice situation in which each decides whether or not to take the other's head.

So this fellow walks into a supermarket in Papua New Guinea. He goes to the meat section where he sees several bins. The first bin says "psychologists' brains—\$2.32 a pound." The second bin says "economists' brains—\$2.49 a pound." The third bin says "anthropologists' brains—\$15 a pound." He goes to the guy behind the meat counter and says, "What's this! I mean brains are brains. I can understand a slight difference in price for psychologists' brains and economists' brains, but \$15 a pound for anthropologists' brains. That's ridiculous. It's downright unfair!" The guy behind the counter replies, "Do you know how many anthropologists we had to kill before we could get a pound of brains!"

I confess that I feel a little bit that way today (i.e., lacking in unbounded rationality) when I hear speakers like Simon, Einhorn,

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1. With regard to the theological dimension of the conference, I confess to the suspicion that it is not so much, as Herbert Simon suggested in his opening remarks, that in the modern era business has displaced religion but, rather, that in the modern era a new religion has come along. It is the religion associated with individualism and the famous "spirit" of capitalism (Weber 1958) in which individual choice becomes a fetish. And it becomes everyone's mission to encourage everyone else to expand as far as possible the realm of things over which one makes rational decisions. Suspicions aside, the physical setting of the conference—the Swift Lecture Hall on the third floor of the Divinity School at the University of Chicago—seemed like a perfectly arranged scene for deep and passionate reconsiderations of the foundations of rational choice theory.

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Tversky, Kahneman, Plott, and others talk so lucidly about an issue—the so-called problem of rationality and its relation to the apparently irrational—that has concerned, mystified, and divided anthropologists for at least a century.

In fact what I feel like doing is sitting down and saying nothing. Given the likelihood of exciting exchanges—real and symbolic—it would be quite pleasurable just to sit back, observe, and learn. Unfortunately, I have to balance that likelihood against an absolute certainty that Robin Hogarth and Mel Reder would not like it if I just sat things out. And, since I have recently learned that “there is a nonlinear weighting function for subjective worth such that it hurts more to lose status than it pleases to gain and that greater value is attached to absolutely certain outcomes,” I think I will say a few things and risk getting myself into deep trouble, which is a risk I would normally like to avert at almost any cost, except Robin’s and Mel’s displeasure.

Kahneman, Knetsch, and Thaler (in this issue) document an ethical side (what years ago might have been called a sentimental or artificial side) to economic transactions. While their main goal is to discover generalizations that describe whether an economic action is considered fair, they go on to argue that fairness judgments are not coincidental with judgments of market efficiency or self-interest, that fairness judgments do not form part of a coherent normative system, that fairness judgments are themselves motivating and have real world effects on economic behavior, and that fairness judgments cannot be deduced from the normative axioms of rational choice theory.

One implication of their work is that anyone who actually lived by rational choice theory as a matter of literal and general policy (e.g., someone who represented every encounter as a choice and always raised prices to meet increased demand) would be morally defective. It is noteworthy that our everyday language of moral abuse is rich in adjectives, verbs, and nouns encoding in folk wisdom exactly that perception of the unbound, unembedded, unsocialized rational actor. Thus we condemn someone as “self-interested,” “calculating,” “manipulative,” “opportunistic”—as a “profiteer.” We speak of “being scalped,” and so on. Unbounded, self-interested behavior seems to be held in deep distrust by common sense. Perhaps that is for good reasons—good rational reasons—although to comprehend the rationality of our everyday attitude of moral disapproval toward opportunistic self-interest one may have to move away from a perspective of individual self-interest to a perspective of detached, impartial rationality. I shall have more to say about that in a moment.

Charles Plott (in this issue) starts his paper by thanking psychologists for showing that the axioms of rational choice are testable and by suggesting that as a general account of individual decision-making processes the deep maxims of choice theory do not hold—the theory is

false. He then goes on to document cases in which the rational agent model, the optimization assumptions, and risk-averse expected utility theory work well to model complicated behavior in experimental markets. Plott describes choice situations in which potential “irrationalities” of individual decision making and judgment (the sunk-cost fallacy and representativeness heuristic) do not play a part in, or interfere with, rational choice. (How rational outcomes are produced without an appeal to the rational processes of individuals still remains to be explained.) Plott notes in passing that the need for a separate theory of moral behavior (separate from rational choice theories) has not been documented, a possible point of tension with the position of Kahneman et al.

A common issue motivating or presupposed by both papers is the relation between the normative and descriptive functions of rational choice theories. Given space constraints I will try to raise one or two questions about each paper and then conclude by trying to bridge the gap between “is” and “ought,” between descriptive accounts of why people do the things they do and normative accounts of what people should and would do if they acted rationally. I want to point to a way in which normative and descriptive studies need each other.

In its own very elegant way, the paper by Kahneman et al. connects with classic issues in social theory. It has long been argued in certain sociological traditions that, from the point of view of utilitarian models of optimizing individuals pursuing their self-interest, there is in any society an extra- or nonrational force associated with communal or solidarity interests. The work of Durkheim (1964, 1965) comes to mind on morality, retributive justice, and the idea of the sacred as opposed to the profane. Durkheim focused on the deeply felt need for revenge in systems of punishment. For example, it somehow feels deeply wrong simply to let people who kill their spouses go free, even if it could be demonstrated that crimes of passion were “one time” events, that it is costly to maintain prisons, that spouse murderers do not need to be rehabilitated, and that there is no deterrent effect traceable to their incarceration. Some extra- or nonrational force, a deeply felt sense of justice, requires punishment. Classic work in anthropology on taboos and rituals (see Shweder [1984] for an overview) develops the idea of a nonrational component to human behavior, although there is always someone eager to try their hand at rationalizing such things as the Hindus’ prohibition against eating beef (the sacred cow) or the failure of most Americans to categorize cats, dogs, horses, or rats as something to eat.

The research also has parallels in work on contract law (Kennedy 1982), especially the issue of why there are innumerable limits on the freedom to enter into contract, limits on the freedom to set any terms one wants in a contract, and impositions of mandatory terms that par-

ties to a contract cannot waive, whatever their perception of their interests. On the surface of it, it would seem that fairness and other ethical considerations place limits on freedom of contract. For example, large classes of actors (children, the insane, and the incompetent) are protected from exploitation by not allowing them to enter into contracts; certain agreements are simply morally repugnant (e.g., agreeing to be a slave in return for free housing or agreeing to waive one's right to get married in exchange for \$50,000). And many terms imposed on contracting parties regardless of their wishes (e.g., a legal requirement that a deal is not binding until after a waiting period) would seem to involve paternalistic or ethical considerations. So even though the paper by Kahneman et al. may seem "narrowly" focused on fairness in economic transactions, the issues run deep.

I find myself a bit reluctant to accept, as yet, the expressed view that the fairness judgments described do not form a coherent system and cannot be derived from any philosophical or economic theory of morality. I would concede that at the level where the paper tries to locate generalizations about fairness judgments they do not seem to form a coherent package and that, at that level, such generalizations as "an increase in demand unaccompanied by an increase in cost is not an acceptable reason to raise prices" seem to require a lot of qualification. For example, what about the market for summer rentals on Nantucket or in Southampton? What if every year during the past 30 when there had been a blizzard the hardware store had raised the price of snow shovels from \$15 to \$20, and everyone is aware of it? In such cases raising the price without reference to cost might not be considered unfair. Why not?

I suspect there are ways to see more unity, generality, and coherence in these judgments of fairness. As a start one might focus research on the ideal and idealized conditions presupposed by the notion of a rational choice by a voluntary agent. The presupposed idealized agent of unbounded rationality made choices free of duress or emotional impulse, with foresight and advice, armed with accurate information and an intelligence able to calculate consequences accurately, and so on. Thus implicit contracts, whether economic contracts or contracts of other kinds, are unfair and disallowable by courts and are offensive to the collective conscience to the extent that either of the agents involved deviated from a condition of voluntariness at the time of giving consent. When parties to contracts are sufficiently vulnerable (i.e., in a state of involuntariness) courts often disallow the contract. Thus, for example, a woman in a postpartum depression who consents to give her child to an adoption agency for a fee and then later wants the child back might well succeed at getting society to disqualify the contract.

One basic goal of our social attitudes, sentiments, and institutions

seems to be to protect the vulnerable from exploitation and defend the communal or solidarity interests of the "tribe." If the blizzard and consequent price increase could have been anticipated, that is, if foresight were possible, the price hike may not have seemed unfair. But if foresight was not possible, then the purchaser was not a voluntary agent but rather a vulnerable individual being taken advantage of, the perception of which activates ethical feelings, which in this case may reflect communal interests. A theory of voluntary agency, a theory expanding the concepts of duress and fraud, might give unity and generality to the account of everyday judgments about fairness. I suspect that judgments about fairness are generated not from a list of generalizations about supply and demand and opportunity costs but rather by assessing the degree to which conditions of voluntariness failed to hold in any particular transaction.

One area for future development in the exemplary paper by Kahneman et al. would be systematically to face the anticipated counterargument that fairness judgments are rational as matters of social policy or as cultural values or as institutions or even as matters of long-term, as distinguished from short-term, self-interest. In principle the existence of a code of good conduct enforced by social pressure, or guilt, and possibly supported by received doctrines about evil is not incompatible with rational choice models, although it may prove impossible to make sense of things only from the level of analysis of individual or egoistic calculators.

When an attempt is made in moral philosophy or religious ethics to give a rational account of fairness values or ethical principles, what typically happens is that the argument gets displaced to another level of analysis. For example, we invoke the idea of an impartial agent or a rational actor who is indifferent to his particular position or advantage in society and who has the wisdom and power to create sensible ethics and institutions. That is what is done by Rawls (1971), who tries, perhaps unsuccessfully, to derive a just society from a social contract among self-interested actors, each of whom is imagined to be ignorant of the ways he differs from others in wealth, power, intelligence, beauty, and so on. That is, the hypothetical actor does not know where he is going to end up in the society that is formed. Just social institutions (including a market) are meant to work to the advantage of everyone wherever he or she might happen to end up in society. It is a controversial and debatable issue whether one can theoretically derive an ethical motive as the product of rational self-interested calculation. Nonetheless, it would be nice to know where Kahneman et al. stand on attempts to model ethics after rational choice models, as in social contract theories.

Plott demonstrates that rational choice models can predict complex behavior in experimental markets. He describes his paper as a defense

against claims about the descriptive irrelevance of such models. Reading Plott's paper side by side with the paper by Tversky and Kahneman (in this issue), I understand why some economists may feel defensive. Tversky and Kahneman argue that it is not possible to construct a theory of choice that is both normatively acceptable and descriptively adequate and that, therefore, the normative and descriptive analyses of choice should be viewed as separate enterprises.

I can see how those are fighting words to economists, yet when it comes down to particulars it is fascinating that there are really very few substantive differences between Plott and Tversky and Kahneman. There are differences in emphasis and especially in what is put in the foreground and what is left in the background; yet a list of substantial claims would not reveal much disagreement. Despite some rhetorical flourishes, none of them is making radical claims.

Thus Tversky and Kahneman acknowledge that the dominance rule and other axioms of rational choice are obeyed when their application is sufficiently transparent, and they seem to restrict their claim that the normative theory is descriptively invalid to those choice situations where the axioms are embedded in nontransparent frames. Moreover, Tversky and Kahneman acknowledge that what they call, with a rhetorical flourish, the "bolstering" assumptions of rational choice theory are often valid. Thus feedback and markets can correct individual deviations from rationality, and so on. On the other hand, Plott grants that markets may behave in unusual ways that might have to be explained by models of irrational or normatively unacceptable individual behavior.

No one seems to be advocating any of the following possible radical positions: (a) that the normative model is normatively inadequate; (b) that rational choice models never model real world choices; (c) that the axioms of rational choice models are tautologically true or that they are incapable of justification; or (d) that significant error in judgment and choice never occurs in real world situations. It is less clear whether Tversky and Kahneman and Plott believe that all individual behavior ought to be represented as a choice or whether they believe that the rationality of values, practices, or institutions can be explained by reference to egoistic real world calculations, whether long or short term.

Some remarks by Churchman (1961, p. 234) have helped me in thinking about the relation between the normative and the descriptive sides of our deepest normative maxims. Churchman seeks a middle ground between the two extreme views (a) that the axioms are always descriptively valid and (b) that the axioms are irrelevant for describing behavior. I like his middle-of-the-road position. I hope it is not the golden mean between right and wrong!

Churchman starts out with an analogy from logic—the maxim that

nothing can be both A and not A. The analogy is of special interest to me because several generations of anthropologists, starting with Lucien Lévy-Bruhl in 1910, have spent their time debating whether the rules of logic had any part to play in the thinking of primitive peoples. Some of the arguments turned on one's interpretation of such assertions as, "We are red parrots," and, "Sorcerers are bush cats." Lévy-Bruhl argued that when the natives said, "We are red parrots," they were not committing logical errors that the native could be led to recognize and correct but rather were engaging in a mode of thought governed by alternative, nonlogical rules. In the 1930s Lévy-Bruhl recanted (perhaps prematurely), and today most anthropologists believe that the laws of identity and noncontradiction are relevant and important for understanding primitive thought.

Examples of apparent violations of the idea that nothing can be both A and not A ("We are red parrots") are treated as either metaphors, parallel descriptive systems of the table-salt-is-sodium-chloride variety, or else bad translations. Some scholars believe there are special contexts (e.g., ritual occasions or dream states) in which normative logical principles such as identity, noncontradiction, and the excluded middle are irrelevant or inapplicable or in which their violation is the point of the ritual experience.

Churchman (1961, p. 234) has the following to say about the maxim that nothing can be both A and not A. To paraphrase, the table before me is both green (on top) and black (underneath). I guess nothing can be both A and not A in the same place and at the same time. The top is green to me but gray to you (who is color blind). I guess nothing can be both A and not A in the same place and at the same time and to the same person. It is green to my eye but hard to my hand. Well, I guess it cannot be both A and not A in the same place and time and to the same person and in the same aspect of his experience.

Reflecting on the maxim (nothing can be both A and not A) Churchman argues that it is intuitively available in our mental equipment yet has a dynamic, almost dialectical, relation to experience. On the one hand, the maxim makes it possible for us to order and record our experiences; experiences get structured as we apply the maxim. On the other hand, the maxim gets reinterpreted as we order these experiences—we reinterpret what A and not A and can "be" mean. The maxim itself is empty; it comes uninterpreted in our mental equipment, and how we end up ordering experience is underdetermined by the maxim alone. Yet it is indispensable for ordering objects and events into contrast sets and for deciding which things we will treat as the relevant set of things that an A cannot be (e.g., "dimes" are not "birds," but it is more relevant on most occasions to contrast them with "pennies" or "nickels," etc.). One implication of this dialectical approach is that a "reconciliation" of what is (actual decision making)

and what ought to be (the normative model) is something that is sometimes sought after, even if not accomplished, by each individual actor. A descriptive account of decision making must pay attention to the individual's own normative self-regulation.

By extension, Churchman argues that the rationality maxims are ways of ordering events. He points out that, in a sense, they can never be shown to be false because we can always maintain them by reinterpreting the concept of preference or choice or the terms that denote the objects of preference. Still we may end up rejecting the relevance of one or more of the maxims if we are driven to very awkward interpretations of preference or to awkward interpretations of the domain of objects over which choice or preference relations are said to apply. I find it awkward, for example, to represent routine, ritualized, or habitual behavior, which is done without conscious deliberation or calculation, as an unconscious choice on the part of the individual between continuing the habit and not continuing the habit.

From that point of view behavior is underdetermined by the rationality maxims in several senses. For one thing there is much negotiation and conflict in any society about which areas of experience are properly represented as choices, for example, whether to sell one's body parts, to feed your children, or to convince your wife to make her womb available to others for hire to produce children. It would be illuminating to know whether marriage rates go down as divorce rates and lawyers fees go up or whether, instead, the routine practice of marrying goes on at the same rate regardless of the consequences or risks involved. For many people in our culture it is deeply troubling to think about marriage in terms of self-interested calculation—of costs and benefits. Many cultural factors enter in here—guilt, repression, ethical codes, and the concept of evil rule out rational calculation in many domains. It is the realm of the sacred or the ethical—which is pretty much the same thing.

In those domains where we are permitted to represent things as choices we may well strive to get the choice situation and our preferences into equilibrium with the maxims of choice theory (invariance, transitivity, etc.), and in some cases we succeed, perhaps assisted by market forces, feedback, and transparent framing. But we do not always succeed. Many psychological factors enter in here, for example, the biases associated with certain heuristics, indifference to evidence, tastes influencing beliefs about the likelihood of outcomes, snap decisions, logical lapses, lack of clarity about goals, lack of foresight, and so on. As has been powerfully demonstrated, problems of the same logical form but of different content differ substantially in difficulty or transparency—and for many reasons. The problem with the idea of abstract or formal axioms is not that the axioms are false but rather the implication that one can focus on them alone (ignoring content and

framing) and still comprehend or predict actual functioning. If you succeed at predicting functioning, it is because you know more than you realized about the content and the proper way to frame things.

In conclusion, it seems to me that any metalanguage for talking about real world behavior is going to have to be rich enough to acknowledge the existence of differences between rational, irrational, and nonrational behavior, at least at the level of individual functioning.

Of course the discussion can be shifted from individual rationality and calculation to the rationality of practices, ethical codes, or institutions. Perhaps social rules and customary practices are a rational solution to the problem that many people are vulnerable to irrationalities much of the time and fall short of ideal voluntary control. Perhaps institutions (e.g., the family and social and professional hierarchies) evolve or are created so that, in effect, the weak give deference, loyalty, and admiration to the strong in exchange for care, nurturance, guidance, and protection. Perhaps in a well-organized society no individual need calculate for himself the advantages or disadvantages of his institutions and ethics or be aware of the bargain implicit in them.

The importance of rationality models is clearly revealed in various attempts to account for institutions and social practices and ethics. Yet, ironically, no one can identify the real human actor who would make the choice to set up sensible institutions and fair practices. And, to end with a theological dimension for the conference, many have thought and continue to think that the only entity with enough power and intelligence and foresight and impartiality to make such choices is some hypothetical rational actor called God. "God," as sociologists since Durkheim have been prone to remark, is a representation of the community, of solidarity interests. The "conscience collective" is not only conscience but consciousness of the collective. It is a global or collective rationality bigger than ego and his "self"-interest. And there are many who haunt this Swift Hall of the Divines of the University of Chicago who still think that something like God—an impartial observer who sees things from all perspectives at once and takes regard of what it sees—is a necessary inference from a rationalistic perspective on society. Perhaps he has an invisible hand. But he or she or it is a very long way from those individual mortal decision makers, you and me, whose vulnerabilities—in our unbounded and admirable desire to be gods—we sometimes overlook.

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