

Rational Choice: Positive, Normative, and Interpretive

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Abstract: Among most economists, political scientists, and sociologists, it is taken for granted that the rational choice approach is a predictive methodology, and its strengths and weaknesses are judged in relation to that purpose. However, the rational choice model of action is found in a far wider range of disciplines across academia, and the purpose for which it is adopted varies greatly, with prediction, prescription, and interpretation each being seen by some as the model's major role. In different disciplines, different purposes are emphasized, which often obscures the common assumptions shared and issues faced by their respective literatures, hence reducing the possibilities for interdisciplinary dialogue and shared theory development. This paper provides a broad, interdisciplinary survey of the positive, normative, and interpretive versions of the rational choice approach. It then discusses complementarities between these three subapproaches, showing how mutual borrowing of methodologies can lead to benefits for all of them.

Introduction

Rational choice is without question, in aggregate, the most broadly-embraced theoretical approach across the breadth of the social sciences and humanities. However, its sheer ubiquity is sometimes underestimated due to the immense diversity of forms that it takes across various academic disciplines, and the chronic lack of communication between those who use the rational choice model of action in its various guises. The basic understanding of the assumptions of the conventional rational choice model, which posits that actions are on the optimization of expected utility under the constraints of beliefs, are fairly consistent across disciplines. And each discipline, these assumptions have been the main point of reference for criticisms. Nonetheless, the way in which the model is used in its standard form, and thus the kinds of criticism it generates, varies greatly enough that the commonality of assumptions is rarely investigated. Perhaps as a result, possible complementarities between different rational choice literatures remain largely unexplored.

One of the greatest sources of variation within the rational choice approach is the very purpose that the model serves. Sociologists, political scientists, and economics naturally tend to focus on the model's role in positive theory. Indeed, to its proponents, its greatest strength is its suitability for generating falsifiable predictions across a wide range of action environments. Yet, in philosophy, there is a sizable literature that emphasizes its suitability to normative theory, while typically dismissing its usefulness in analyzing real-world action. Likewise, in anthropology, rational choice has been widely advocated and used primarily as a method for interpretation of foreign cultures, leading to one of the most notorious theoretical debates in the history of the discipline.

This paper will begin by surveying the positive, normative, and interpretive uses of the rational choice model, and the intellectual exchanges that take place, or should take place, within each version of rational choice. After this survey, the paper will discuss ways in which work in normative and interpretive rational choice can both benefit and gain from cross-pollination with work in positive rational choice.

Positive Theory

In economics, sociology, and political science, the main advantage of the rational choice approach is typically seen as its ability to aid in the prediction of action, either at the individual or the collective level. Indeed, proponents typically argue

that its superiority arises out of its explicit, general assumptions about human action and resulting ability to generate testable hypotheses under a wide range of structural circumstances. This defense of rational choice goes back at least to Milton Friedman's famous presentation on the "methodology of positive economics", in which he belittles the importance of rational choice's verisimilitude as a description of decision-making, arguing that "The ultimate goal of a positive science is the development of a 'theory' or, 'hypothesis' that yields valid and meaningful (i.e., not truistic) predictions about phenomena not yet observed" (M. Friedman 1953). Subsequent work in these disciplines has built upon the positive version of the rational choice approach.

Contemporary economic theory is of course defined in important ways by its adoption of a positive version as its dominant paradigm. While there are subfields of economics, such as welfare economics, social choice, and public choice, that are centrally concerned with normative theory and prescriptions for institutional design, the rational choice model in these subfields is still used primarily in a predictive manner. With the exception of classical utilitarian welfare economics (itself an outgrowth of the work of 19th century utilitarian philosophers) there is no assumption in economic theory of a clearly-specified social utility function nor a leviathan-like actor that can choose society's institutions at will. Hence, the theory is used for the most part to predict the behavior that actors will exhibit under particular institutional arrangements, and less often as the basis for choosing the institutions themselves.

The entry of rational choice into political science during the 1960s and 70s was marked by a rash of articles contrasting its ability to generate predictions from general assumptions with the elaborate categorization schemes that were features of the cultural and structural-functional approaches popular at the time (Harsanyi 1969; Mitchell 1969; Holt and Turner 1975). In a famous work of metatheoretical advocacy, Barry referred to rational choice and status quo alternatives as the "economic" and "sociological" approaches to political science, preferring the former, because it contains "a set of axioms from which predictions can be made", whereas in the latter "no claim is made for the development of a theory which will deduce propositions from premises" (Barry 1970, 166, 6). More recently, the rational choice approach in political science has gone by synonyms such as "positive political economy" or "new political economy" (Alt and Shepsle 1990; Meier 1991), explicitly equating its mission to the goals that Friedman had originally set out. Given this, the main criticisms that have been directed at the approach in political science have focused on the predictive indeterminacies and anomalies that arise in specific action environments, such as voting and collective action (Green and Shapiro 1994; D. Friedman 1996).

As in economics, there is substantial body of political science theory that is normative. Indeed, until World War II, the then-largely American discipline was dominated by the legal-formal paradigm, which sought primarily to compare and draw judgments on constitutional and other institutional arrangements (Packenham 1973, chap. 1). However, this approach was largely *ad hoc* and had no prominent, unified, general model on which it based its comparisons. In the post-1950s era, normative political theory has taken two primary tracks. One is a reversion to the authority of the "classics" (for political scientists, this means Machiavelli, Hobbes, Locke, Rousseau), which likewise does not provide a unified normative model. The other track is loosely linked to rational choice, and is subdivided between the public choice literature, which has already been discussed, and the literature triggered by John Rawls's *A Theory of Justice* (Rawls 1971).

Rawls does use the rational choice model as a method for "choosing" institutions of justice based upon hypothetical yet-to-be-brought-to-life individuals making decisions under a "veil of ignorance" about their future structural position

or even their own personal characteristics once they are born. However, use of such hypotheticals is at best a half-hearted advertisement of the rational choice as a normative model action, since he does not take a position advocating the use of the model for actors who are subject to the more complex types of information constraints found outside this original position. It is interesting to note that public choice founders Buchanan and Tullock took a similar tack, predating Rawls himself, in discussing the conditions under which rational choice can be used as the basis for institutional selection: “The self-interest of the individual participant at this level leads him to take a position as a ‘representative’ or ‘randomly distributed’ participant in the succession of collective choices anticipated. Therefore, he may tend to act, from self-interest, as if he were choosing the best set of rules for the social group.” (Buchanan and Tullock 1962, 95).

Barry’s labeling of their discipline notwithstanding,¹ a substantial number of sociologists have chosen to adopt rational choice as a positive general model of action. Indeed, amongst the many contentious debates about its usefulness in the discipline, it has largely been taken for granted by nearly all supporters, and many detractors as well, that the fate of rational choice approach in sociology ought to depend on its usefulness in generating falsifiable hypotheses. In their wide-ranging, supportive survey of the role of rational choice in sociological theory, Hechter and Kanazawa argue that “theories ultimately are judged by their capacity to account for empirical observations”, and that “the appeal of rational choice in sociology is unlikely to increase substantially until the approach provides demonstrable empirical payoffs in a wide variety of substantive areas” (Hechter and Kanazawa 1997, 195. See also Kiser and Hechter 1998, 789; Friedman and Hechter 1990, 214-15).

Normative Theory

In philosophy, the conventional rational choice model of decision-making, based upon expected utility maximization, is widely discussed and used, particularly in philosophy of mind and its related subfield, the philosophy of action. However, its primary role has been as a prescriptive model, a way of specifying of how individuals *ought* to behave, rather than how they actually behave. Proponents of normative rational choice that just as rational beliefs (“theoretical reason”) ought to follow the rules of logic and probability in order to be valid, rational actions (“practical reason”) must follow from the rules of utility maximization, which incorporate but go beyond logic and probability, in order to be optimal. Rationality is idealized because each rational action is fully justified in light of desires and information. As Cherniak points out, “current philosophical conceptions of rationality inherit central features of models of rational agent propounded in microeconomic, game and decision theory”, however such a conception requires “an ideal agent of great inferential insight”. Hence “debate about the role of idealizations takes a central position in recent theorizing about rationality” (Cherniak 1995, 527).

The view of rational choice as an idealized determinant of action has a much longer history than that of rational choice as a predictor of action. The former dates at least back to the Enlightenment, and more specifically from rationalist philosophers such as Descartes, Spinoza, and Leibniz, who argued that both actions and beliefs ought to be the result of a process of dispassionate reasoning and were equally adamant that ordinary human action usually failed to live up to this ideal.² Furthermore, while utilitarian philosophers such as Bentham and Mill developed the principles of utility maximization that are at the heart of the contemporary rational choice model in both conventional and revised forms, they clearly presented it as the basis for a prescriptive model rather than a predictive one. As Mill stated, “The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to

promote happiness, wrong as they tend to produce the reverse of happiness.” (Mill 1863, chap. 2, par. 2). Notwithstanding the unmooring of the concept of utility from that of happiness that has taken place in recent years, this view still reflects the purposes to which contemporary rationalist philosophers hold the model.

Given this, philosophers are naturally less likely to be concerned than social scientists about whether the conventional rational choice model is consistent with the behavior human actors actually display. Observed cases in which actors seem to be diverging from expected utility maximization, can from a normative view be seen as evidence of the shortcomings of humans, rather than of the model. Of course, there may be a point where the magnitude of divergence is so great that rational choice must be deemed not only atypical but actually impossible in humans, which would bring its relevance even at a normative theory into question. But in general (with some exceptions discussed at the end of this paper), such concerns are taken as secondary, minor issues. Because of this, criticisms of the conventional rational choice model and attempts to revise or replace it tend to come from quite different sources in philosophy than they do in economics, sociology, and political science.

Perhaps the greatest challenge to the normative model of rational choice arises from the widely-accepted notion that following the model can lead under certain circumstances to perverse consequences, either for the actor or for society as whole (Rescher 1988, vii, 6; McClennen 1990, 4-5; Nathanson 1994, 226; Gauthier 1985b, 85-86). The exact nature of such consequences can be defined in different ways, but they all refer to a link that critics feel ought to exist between rational choice decision-making on the one hand and a common sense notion of “reasonableness” on the other. Hence the most common criticisms of the normative approach arise when the conventional model generates outcomes that intuitively seem to the outside observer to be objectively undesirable for any human actor. The two most prominent of such criticisms come from cases (1) when individually rational actions apparently lead to collectively suboptimal outcomes and (2) when preferences themselves seem destructive to the individual or to society.

Both social scientists and philosophers recognize that individual actions in accordance with the conventional rational choice model can lead to collectively suboptimal equilibria. Moreover, they for the most part, at least implicitly, share a common definition of collective suboptimality. This is the very strong Pareto criterion, for which a profile of actions is collectively suboptimal if and only if there exists another profile of actions by the same actors that provides at least equal utility for all actors, and greater utility for at least one actor. Both are concerned about collective suboptimality, but typically for very different reasons.

Conditions under which rational actions lead to collectively suboptimal outcomes do not typically, in and of themselves, force social scientists to question the validity of the positive rational choice model, whether such suboptimalities manifest themselves in the analysis of concrete social dilemmas involving collective action, voting, common pool resources, and the like, or of abstract formal games such as the prisoner’s dilemma. After all, the assumptions of the positive model do not suggest that individual and collectively optimality are always congruent with one another. Hence, the failure to attain collective optimality is an indication of unfortunate structural circumstances or poor institutional design. As a result, suboptimal equilibria typically leads rational choice social scientists to investigate the role the social environment plays in generating or preventing such equilibria and to theorize about institutional solutions that will render individual and collective rationality compatible.

On the other hand, rational choice philosophers tend to view suboptimal equilibria as anomalous and paradoxical, since purportedly rational actions that leave members of a group worse off than they could be given feasible alternatives do not seem to fit with a common sense notion of reasonableness. Hence, rather than

searching for external solutions that will channel actors who behave according to the model's prescriptions into collectively better outcomes, philosophers typically are forced by existence of such paradoxes to attack the usefulness of the normative rational choice model or to modify it so that it no longer generates such equilibria, regardless of the circumstances.

Besides the prisoner's dilemma and other anomalies of collective suboptimality, philosophers also venture into surreal "thought experiments" where expected utility maximization can lead to even individually suboptimal outcomes. Such scenarios necessarily involve some manipulation of time and causation. The most notable ones, Newcomb's problem (Nozick 1969) and the toxin puzzle (Kavka 1983), involve a rational subject's interaction with clairvoyant actors who make choices based upon the subject's anticipated future actions. While the significance of such thought experiments is controversial, to say the least, there is some support for using them. After all, if the rational choice model is taken as an ideal, it should not generate suboptimality either in real-world conditions or in conditions out of this world, as long as those conditions are consistent and capable of being understood by the actors. However, since we are talking here about the intersection on philosophy and social science, these anomalies will not really concern us here.³

Two major revised models of rational choice have been devised by normative theorists to do away with such suboptimal outcomes. The first, known either as the conditional expected utility (Jeffrey [1967] 1983; 1992; Eels 1982; Nozick 1990) or evidential logic (Grafstein 1991; 1992; 1995) model, is based on a loosening of expected utility's strict consequentialism, allowing individuals to take their own choice of actions as evidence about the state of the environment. The most frequently used case used to illustrate the operation of such a model is Weber's portrayal of 19th century Calvinist industrialists, who worked to accumulate money well beyond their needs because they saw their own labor as evidence of their predestined salvation (Weber [1904] 1958). Using similar reasoning, it is simple to show that conditional expected utility / evidential logic will do away with social dilemmas, as long as actors take their own cooperation or lack thereof as strong enough evidence of what others in their group will do.

The second revised model is also known by two names, either as constrained maximization (Gauthier 1985; 1986) or resolute choice (McClennen 1985; 1988; 1990). The constrained maximization / resolute choice model, allows individuals to costlessly and fully pre-commit themselves to any future plan of actions they wish. Once they commit, they will always follow this plan, regardless of the utility associated with each action relative to alternatives at the time it is actually taken. On an individual level, this model eliminates the "Ulysses problem" of optimizing rational choice, whereby actors may, due to time-inconsistent utility functions, may wish to perform certain actions in the future but also realize that their future selves will choose not to do so (Elster 1979, chap. II; 1985; Loewenstein and Elster 1992). At the collective level, the model can do away with social dilemmas, as long as the intentions of actors are sufficiently visible to others (in Gauthier's words, "translucent"). Under such circumstances, groups of actors can always form a self-enforcing contract to act in a cooperative manner in the future if it is in their mutual interest, and will do so regardless of the future incentives that face them.

The notion of "rational preferences" has a long history, going back at least to Plato's *Euthyphro*, whose protagonists attempt to debate in objective fashion over the relative importance of matters of life and death. Much later writings by Hume and Hobbes led to the widespread conceptual separation of fact and value, and to the instrumentalist notion that only beliefs and actions can be deemed rational or irrational. To quote Hume's famous passage: "Tis not contrary to reason to prefer the destruction of the whole world to the scratching of my finger. 'Tis not contrary to reason for me to chuse my total ruin to prevent the least uneasiness of

an Indian or person wholly unknown to me.” (Hume 1740, book 3, part III, sec. 8). Hume’s words have been taken to heart by positive rational choice theorists, who have almost universally accepted the notion of preferences as “tastes” that are not be questioned, only analyzed (Stigler and Becker 1977; Becker 1992; 1996).

Nonetheless, proponents and critics of normative rational choice have continued to examine this issue (Nathanson 1994, ch. 1; Hampton 1992; 1994). In particular, it has been hard for many anti-instrumentalist (“objectivist” or “Kantian”) critics to accept that a course of action involving the wanton destruction of self or others should be deemed rational simply because the actor in question desired such an outcome. Nor has the conventional social science “thick” shortcut of equating utility with wealth been seen as very attractive either. Instead, a number of the most notable contemporary philosophers have sought to put forward competing definitions of rational preferences.

One fairly straightforward conceptualization of rational preferences is presented by Gert, who focuses on components of utility that are objectively beneficial to the physical functioning of an individual (Gert 1988). Two somewhat more complex recent conceptualizations are Rescher’s ideal of a utility function encompassing all the full range of essential human qualities and Hollis’ examination of rational preferences as a collective social construct. Rescher proposes a multifaceted view of rational preferences, incorporating the physical, social, and intellectual needs of the individual, while also taking into account the role that and actor plays in society (Rescher 1988; 1992, chap. 1; 1993, chap. 3). Hollis sees rational preferences as even more fundamentally a product of group identity, and thus something that cannot be determined for an actor in isolation. Indeed rationality of these preferences can only be determined by looking at the mutual complementarity between them and those of all other actors in the group (Hollis 1983; 1987; 1996, chap. 2).

Both of these theories have a relationship to normative work in economic policy that attempts to define alternative indicators to the Gross National Product for measuring national welfare. Pioneering attempts included Redistribution with Growth (Chenery 1974), which sought to balance GNP and allocational equity, and Basic Needs (Streeten and Burki 1978; Streeten 1981), which put emphasis on goods that are most important for survival. More recent attempts include Morris’ Physical Quality of Life Index and the United Nations’ Human Development Index (Morris 1979; ul Haq 1995), both of which provide quantitative multidimensional welfare functions for economic development policy that are morally justifiable and politically palatable. It is worth noting that neither the PQLI, HDI, nor other related index has ever seriously been proposed as the basis for a revised utility function for the rational choice model. Hence, ironically, though economists have tended to define economic policy goals as being broad and multidimensional, the actual policy instruments chosen as means to achieve them continue to be based upon a narrow and unidimensional conception of human preferences.

One reason for this may be that such indices apply to a collective unit of analysis, but both can readily be translated down to the individual level. Another is the fact that both were conceived of as normative and thus would irrelevant for a model that, in economics, is used exclusively as an predictive tool. Finally, with the exception of Redistribution with Growth, which links up to ideas in welfare economics, none of these approaches has really been examined from within a general theoretical framework. Engagement with philosophical work on rational preference will not only help to provide a clear justification for choosing one index over another, but will also illuminate the way in which such indices can enrich the rational choice model. More specifically, Gert’s work is most relevant to Basic Needs and Rescher’s to PQLI and HDI. Hollis’s work suggests an entirely different way of approaching economic indicators. Continuing this dialog will enhance the philosophical literature

as well, since empirical studies on economic indicators can help to point out the practical implications for different theories of rational preferences. Indeed, much of what makes Sen's recent work in "capabilities" so compelling is that it attempts to engage in exactly such a synthesis between normative work in philosophy and economics (Sen 1997 [1973]; Sen 1985; Sen 1992).

A quite different philosophical approach to rational preferences does not rely on externally defining the utility functions that rational actors must have, but rather on demanding that actors have preferences that can be linked to informed deliberation. The most prominent of these is Brandt's idea that rational preferences must be based upon "cognitive psychotherapy", in which the actor subjects prospective utility functions to lengthy and unemotional scrutiny (Brandt 1979). Among other things, such deliberation must result in a utility function that can be justified in terms of a universalistic rather than a particularistic system of morality. There is an interesting parallel between the notion of cognitive psychotherapy on the individual level and the notion of deliberative democracy at the collective level. Just as cognitive psychotherapy endorses a personal utility function if it is the result of individual deliberation, the deliberative democracy approach endorses a social utility function if it is the product of collective deliberation (Fishkin 1988; 1991). Indeed, Parfit refers to Brandt's theory as a "deliberative theory" of preferences (Parfit 1984, 117-20). Like economists, political scientists are somewhat more willing to formulate normative theory at the collective level than at the individual level, yet analyzing cognitive psychotherapy and similar concepts in philosophy can point out the clear links between the two.

Interpretive Theory

While both positive and normative rational choice theories derive hypotheses about actions from *a priori* assumptions about preferences and beliefs, the interpretive version of the rational choice approach does the opposite, taking information about action and attempting to infer the preferences and beliefs that are driving these actions. Since preferences and beliefs are difficult to measure directly, however, the generation of falsifiable prediction of attitudes from actions is not the usual objective of interpretation. Instead, interpretive work traditionally seeks to promote insight and understanding regarding the mental processes that are driving observed patterns in social behavior.

Interestingly enough, while anthropology has perhaps been the discipline in social science whose members have been most uniformly opposed to the encroachment of positive, economic rational choice, the rational choice model has long been the basis for the *de facto* mainstream strategy in anthropology for interpreting the actions of subjects in ethnographic fieldwork (Ortner 1994, 396). The use of rational choice as an interpretive strategy has been an extremely controversial issue, leading to perhaps the most contentious theoretical debate in social and cultural anthropology over the latter part of the 20th century (Wilson 1970; Horton and Finnegan 1973; Hollis and Lukes 1982; Agassi and Jarvie 1987).

The genesis of this controversy was much earlier, a by-product of 19th century work in ethnography, centering around attempts by anthropological field researchers to understand the attitudes underlying the often strange-seeming practices of pre-industrial non-Western societies, particularly the widespread use of magic and other superstitious rituals. Given the strong and lingering of the classical sociological theory-inspired tradition-modernity dichotomy in its most extreme form, and more specific mental hierarchies such as Comte's "Law of Three Stages", theological, metaphysical, and positive (Comte 2002 [1851-1854], vol. 2), the usual tendency by ethnographers until the mid-20th century was to view such practices as evidence of backward and illogical thinking among non-Western people that would nonetheless,

over the course of history, gradually evolve to converge with that of the rational West.

The apogee of the classical modernization approach to interpretation was, undoubtedly, the appearance in the 1920s of three books by Levy-Bruhl, in which he put forth a systematic and detailed theory of the “primitive mentality” (Levy-Bruhl 1926 [1920]; 1923; 1928). Despite the disparaging title attached to his theory, his view was somewhat more respectful of non-Western modes of decision-making than the writings of predecessors like Comte, Lewis Henry Morgan, or Herbert Spencer. Levy-Bruhl argued that different societies had fundamentally incommensurable mental processes, with the primitive society embracing mysticism based upon a holistic “law of participation” that bonded the self with the material world and had no requirement of logical consistency. Hence, while he rejected the notion that Western and non-Western thinking were equally rational, he also opened the door to seeking interpretations that rendered exotic practices sensible within their own indigenous cultural system.

About the same time, however, metatheoretical arguments about how to properly interpret social practices within unfamiliar societies veered away from emphasis on the actor in favor of system-level analysis. This was in large part due to the rise of functionalism in anthropological theory, as exemplified by the structural-functionalism of Radcliffe-Brown and the more psychologically and physiologically-oriented functionalism of Malinowski. The best-known functionalist analysis of magic and superstition is found in Malinowski’s ethnography of the Trobriand Islanders (Malinowski 1961 [1922]) and his subsequent theoretical examination of the contrast between magic, science, and religion (Malinowski, 1954 [1925], especially chap. 2). In these works, he developed the argument that magic was useful to preindustrial societies because it provided a way of reducing fear over natural phenomena over which the society had little control. Hence, while he did not directly address the issue of actor-level interpretation, his work supported methods that sought to find reasonable justifications for unfamiliar practices.

Outside the realm of “grand theory”, moreover, anthropologists continued to grapple with the issue of actor-level interpretation in their ethnographies, as it was extremely difficult to translate the observations of everyday behavior from field research into purely structural language. The most thorough explication of the post-classical, actor-level approach was provided by Evans-Pritchard, himself ironically the designated intellectual heir of the functionalists, in his study of magic and witchcraft among the Azande, a people of southern Sudan (Evans-Pritchard 1937; 1962; 1965). In this body of work, he argued at length in favor of viewing Zande practice of witchcraft as “logical” given their cultural assumptions, but with the qualifying assertions that the assumptions were false, not subject to empirical testing, and thus not “scientific”. Translated into choice-theoretical terms, Evans-Pritchard’s method of interpretation implied universal rationality, albeit a rationality whose access to information was more restricted for some societies than for others. Bolstered by this analysis, mainstream cultural anthropologist adopted an interpretive approach that sought to explain the actions of their subjects by reconstructing the beliefs and preferences that would render these actions rational. At the same time, this approach also allowed the anthropologist to conclude that the beliefs that would support such actions were objectively wrong and / or that the accompanying preferences were maladaptive due to incomplete information.

However, this version of rational reconstruction came under attack in the 1960s and 70s by the “relativists”, led by the philosopher of science Peter Winch. Winch argued that *any* imputing of error or deviance on the part of the subject by the ethnographer was improper and reflected the ethnographer’s own limited ability to comprehend foreign cultures (Winch 1958; 1964). In his attack on Evans-Pritchard’s methods, he argued that the concepts such as reality or unreality, while

having counterparts in all languages, have different correspondences to human experience within each culture. Only in Western culture, he argued, is reality defined as being equivalent to consistency with systematic empirical observations. Hence, the anthropologist is not in a position to decide whether the beliefs of a member of another culture are real or not. His ideas were influenced very heavily by the “language game” analysis of the later Wittgenstein (Wittgenstein 1953), and also have an obvious relationship to the “Sapir-Whorf hypothesis” in linguistics, which put forward the definitive argument for the linguistic construction of reality.⁴ Winch’s concise statement of this position has been quoted by a number of his successors: “Our idea of what belongs to the realm of reality is given for us in the language that we use” (Winch 1958, 15). In his view, all cultures may be thought of as embodying a rational world view in some sense, but the content of this rationality varies so greatly from society to society that it was impossible for any scholar to make use of rational interpretation to understand the actions of someone from another society.

During the late 1980s and 90s, anthropological approaches to interpretation were hit by a “crisis of representation” that moved the theoretical mainstream even further in the relativist direction. In this literature, Marcus, Clifford, Fischer and their associates adopted ideas from postmodern theory to argue against any systematic interpretative approach, and indeed systematic method of any kind. They advanced the notion that any claim to interpret the actions of others is in reality a hegemonic way of attempting to shape, based upon one’s own world view, the culture of the subaltern subject (Clifford and Marcus 1986; Marcus and Fischer 1996 [1986]; Marcus 1999). Such a tendency, they argued, should be eliminated and replaced either by the personal voice of the subject, or through experimental and reflexive approaches that abandoned any claim towards authoritative understanding. Even anthropologists who were not associated with postmodern thought portrayed concern with rationality as an artifact of enlightenment thought rather than a useful concern in analyzing cultures (Shweder and Levine 1984, chap. 2). As a result, while there have been some notable defenders of a loosened version of classical interpretive rationalism (Agassi 1980; Jarvie 1983; 1984; Horton 1993; Lukes 2000), there has been a general trend of opinion against any attempt to systematically interpret action according to an explicitly stated theoretical model.

Interestingly enough, both recent critics and defenders of the conventional rational choice approach to interpretation have focused their arguments on the need for ethnographers to empathize with the subject’s own world view. Rationalists argue that interpreting action in terms of the preferences and beliefs that would render it rational thereby gives the subject credit of possessing with both logical thinking and human intentionality, thus reducing the psychological distance between researcher and subject. In making such an argument, interpretive rationalists often seek support from the philosophical “principle of charity” proposed by Davidson (Davidson 1980; 1984). Briefly stated, this principle states that any listener’s interpretation of communication should assume, absent evidence otherwise, commonality between the speaker and herself / himself with regards to beliefs and inference procedures. Davidson argues that without such a principle, which he also refers to as “radical interpretation”, understanding the meaning of another person’s speech is not possible. Extended to all action, the principle of charity implies that rational interpretation is a precondition for understanding the intentions behind any action.

Relativists argue that the classical model imposes a specifically Western form of rationality on all societies, and furthermore causes the ethnographer to attribute any pattern of behaviors that differs greatly from Western practice to bad information or aberrant values rather than a different but equally valid mode of

decision-making. Ironically, contemporary relativists share with Levy-Bruhl and his 19th century predecessors the Kiplingesque "East is East and West is West" notion that different actions under different cultures are fundamentally incommensurable. On the other hand, they reject any explicitly ethnocentric outlook or "illogical" label for non-Western cultures, replacing it with the notion of "many rationalities" that are equally valid. Instead of using incommensurability as a justification for rejecting non-Western cultures, they use it to attack Western pretensions to understand others. Indeed, the stated objective of Winch's and the "crisis of representation" critics as well is to discredit any claim to a scientific approach to studying culture.

The debate on interpretive rationality is important to other social science disciplines, since scholars in economics, sociology, and political science also engage in rational interpretation in order to understand empirical observations, albeit usually implicitly rather than explicitly. The economic doctrine of revealed preference (Samuelson 1948), for instance, is essentially a form of rational interpretation, albeit one with a fairly rather limited scope. Rational interpretation in sociology and political science, on the other hand, is much broader and increasingly recognized as a proper area for study. In sociology, Boudon argues that rational choice theory can be useful if it "interprets any social phenomenon as the outcome of rational individual actions" (Boudon 2003, 2-3; see also Boudon 1998). He then implies that such interpretations can become the basis for predictive theory. In political science, Ferejohn states that "Rational choice theory is, in this sense, an interpretive theory that constructs explanations by 'reconstructing' patterns of meanings and understandings (preferences and beliefs) in such a way that agents' actions can be seen as maximal given their beliefs." (Ferejohn 1991, 281).

In essence, rational choice social scientists outside of anthropology are beginning to recognize the importance of interpretation for their work. At the same time, there seems to be little awareness of the anthropological debate on rational interpretation, as well as the many complexities of interpretation that this debate has revealed, such as the problem of translating meanings across languages and the cultures surrounding them. A deeper engagement with this debate would undoubtedly provide such scholars a better understanding of the methods through which preferences and beliefs can best be drawn from observed action in a way that does not impose meaning on the subject, as well of the limitations that exist in trying to determine the attitudes that exist in societies other than one's own. Likewise, this engagement would also provide anthropologists with a fresh way of looking at this hoary debate, and among other things show how the formal methods of modeling choice used in other disciplines might affect the reliability of rational interpretation.

Intersections between Positive, Normative, and Interpretive

To sum up, the conventional rational choice model has been heavily used for all three purposes throughout the social sciences and humanities - positive, normative, and interpretive, though justifications and criticisms for its use have aligned along different axes. Moreover, for each purpose, the model has been highly controversial, and the question of its usefulness have been fought out over problematic case studies and scenarios that seemed to threaten its standing. For positive rational choice, these were anomalies caused by real-world collective action within large groups and by the resolution of strategic uncertainty in iterated interactions. For normative rational choice, they have revolved around "common sense" paradoxes such as individuals with apparently self-destructive preferences, or social dilemmas in which individual rationality leads to collectively suboptimal outcomes. For interpretive rational choice, the main criticisms have focused on cases in which the interpreter has struggled to account for magic, witchcraft, and other practices that were foreign to their own sensibilities.

On the surface, these differences simply seem to reflect the huge gap that exists between the three versions of the rational choice approach. And yet it is evident that there are important connections between them. The fact that they all embrace a theoretical model that analyzes action in terms of a logical decision-making procedure aimed at attaining preferences in light of beliefs means that there are crucial overlaps in the methodological issues that they must address. This suggests that complementarities and mutual learning can result from increasing the currently minimal level of communication between the literatures surrounding these three forms of rational choice.

In the previous two sections, I have included some discussion of some of the ways in which work on normative rational choice in philosophy and interpretive rational choice in anthropology can help to deepen normative and interpretive analysis in other disciplines. In the rest of this section, I will focus on the complementarities between positive, normative, and interpretive theory, regardless of discipline. Given that majority of the audience for this paper consists of those who use rational choice as a positive, predictive theory, I will focus in the following section on the ways in which the positive version of rational choice approach might benefit from interaction with each of other two versions.

Positive and Normative Rational Choice : Perhaps the broadest way in which the normative rational choice literature can provide guidance to the positive is by showing how rationality ought to be conceived in order for rational actors to truly maximize their utility. This is important, if only because positive rational choice theorists are often challenged to show why we should expect rational choice assumptions to lead to useful predictions despite their apparent lack of realism as a description of actual human decision-making procedures. By far the most common rebuttal consists of the invocation of the notion that, even if actors do not calculate in accordance with the rules of the rational choice model, they will over time act as *if* they are rational due to a process of natural selection (Ferejohn and Satz 1994). Such arguments come in a variety of forms, relating to each type of actor that might be subject to analysis, such as business firms (Alchian 1950), political parties (Downs 1957) and candidates (Mayhew 1974), and nation-states (Waltz 1979), but they all contend that actors that emulate rational action will dominate and eventually outnumber others, even if the choice is either coincidental or a result of imitation. Such an argument also allows the theorist to view rational choice itself as endogenous to evolutionary pressures and not simply an *a priori* assumption.

However, the argument also is also contingent on rationality being defined as being equivalent to adaptive behavior. It is precisely here that the debate on normative models of rationality can help, since it provides cogent analysis of the circumstances under which the conventional model fails to be adaptive proposes alternatives, such as the evidential logic / conditional expected utility and constrained maximization / resolute choice models, that can be shown in some circumstances to be more adaptive than the conventional model. If the evolutionary argument is to be taken seriously, then positive theorists should take great interest in studying the normative literature and should at least consider the possibility of adopting one of the alternative normative models as a revised positive model. If they refuse to do so without closer examination, then it will be difficult for positive theorists to continue using the evolutionary argument to justify their model.

This is not to say that there is no analysis within in the positive approach on this subject. The most prominent example of this Frank's work in economics, in which he discusses the adaptive role of the emotions, arguing that a manifest disposition to non-optimizing behavior can serve as a form of pre-commitment that may actually increase an individual's utility (Frank 1986; 1987; 1988). Another example is Vanberg's sociological theories, in which he argues for the adaptive

superiority of non-optimizing behaviors based upon commitment to rules (Vanberg 1994). However, comparisons of these works with the much larger body of literature in normative rational choice theory would undoubtedly greatly enhance the quality of the debate surrounding them.⁵

Of course, the potential for borrowing is not simply one-way. The normative version of the rational choice approach is not totally unconcerned with the reality of its decision-making model. A normative model must be specified in so that the possibility of its achievement is at least conceivable for humans, otherwise it will be irrelevant even as an ideal. In philosophy, such concerns for the most part generate fairly arid debates that are unlikely to be resolved in a purely analytic fashion. Perhaps the most prominent of such debate centers around whether failure to act according to the conventional model of rationality is proof of irrationality or simply of “performance error”, the inability of human beings to successfully implement a system of rules that they nonetheless understand at some level. This argument is inspired by Chomsky’s work in linguistics, in which he distinguishes between what he feels are the deeply embedded, largely innate, knowledge that all humans have (“competence”) and the unpredictable and noise-ridden way in which such knowledge is expressed in speech (“performance”) (Chomsky 1965).

Some argue that this renders empirical evidence irrelevant to the debate on rationality. As Stein states, “If failure to act in accordance to the rational choice model is result of performance error, it may safely be said that empirical considerations would not be relevant to the question of human rationality because this interpretative strategy would discount any evidence in favour of human irrationality” (Stein 1996, 23). However, while it is true that competence cannot be measured directly, it is nonetheless also true that if the notion of competence is to be meaningful in some way, then there must be *some* circumstances under which competence can be expressed in performance. Furthermore, it would also make sense then to intensely analyze the circumstances under which actors can be seen to act rationally or irrationally, an issue that is certainly subject to empirical verification and is increasingly central to the debate surrounding positive rational choice.

The evolutionary justification for rationality assumptions and the competence vs. performance dichotomy mirror each other in certain ways. The first states that individuals are innately irrational but manifest behavior that is rational due to natural selection, the latter states that individuals have a innate rationality but manifest behavior that is irrational due to performance error. This is not coincidental, since the distinction between “natural” or “innate” rationality and rationality in action in a crucial distinction that exists between the normative and positive literatures. Borrowing Harrison’s terminology, much of the debate in philosophy over the possibility of rationality is one over “description” (whether the assumptions of rational choice have any verisimilitude as a description of human decision-making processes) rather than “explanation” (whether the assumption have any ability to predict action).⁶ The question of whether rationality is an accurate description of decision-making is, strictly speaking, an empirical question, but one for which only key variables (thought processes) are not directly observable. Hence it makes more sense to resolve the question indirectly, by examining the predictive adequacy of the rational choice model. Empirical work by social scientists, both in the experimental settings and the field, can provide some insights not only into ways in which human action compares to the prescriptions of a particular conceptualization of rationality, but, if they exist, the specific conditions under which rationality can be achieved.

Positive and Interpretive Rational Choice : The benefits of interpretation for positive rational choice are clear, particularly if the positive approach abandons the conventional “thick” assumptions that preferences are purely egoistic

and materialistic and beliefs are based purely on observation and logical inference. While the predictive shortcomings of the conventional assumptions are well-known, simply adopting alternative assumptions about preferences and beliefs on an *ad hoc* case-by-case basis is no solution. By doing so without restriction, social scientists face the danger of rendering the model tautological with regards to these cases, since there is nothing to prevent the assumptions from being based upon the very behaviors they being used to predict. On a more general level, it destroys the unity of the rational choice model, since the preference and belief assumptions for one case will contradict those for other cases (Chai 1997).

Interpretative rational choice can help address this problem by providing a systematic way of drawing robust inferences about an individual or group's preferences and beliefs from sustained observations, which in turn can be incorporated as assumptions in positive theories that can be used to predict future actions. In political science, positive rational choice theorists such as Bates, Weingast, and their colleagues embrace interpretation for largely this reason, arguing that there is a complementarity between rational choice theorizing and interpretative historical methods (Bates, De Figueiredo, and Weingast 1998; Bates et al 1998). They argue that interpretive reconstruction is important for specifying the preferences and beliefs that drive rational action, particularly during times of structural transformation, when societal rules are unclear. As Bates, De Figueiredo, and Weingast state in their article: "The 'cultural' knowledge required to complete a rational choice explanation reveals the complementarity of the approaches. . . . It requires detailed knowledge of the values of individuals, of the expectations that individuals have of each others' actions and reactions, and of the ways in which these expectations have been shaped by history" (Bates, De Figueiredo, and Weingast 1998, 250).

In anthropology, Sperber has referred to the process of transforming interpretation into a predictive model as "interpretive generalization" (Sperber 1996, chap. 2), though he notes elsewhere that for such a process to be useful, interpretations must contain "descriptive comments" that clarify what exactly is being asserted by a particular ethnographic text (Sperber 1985, chap. 1). Indeed, the usefulness of interpretive rational choice is that it seeks to provide insights into preferences and beliefs at a relatively "deep" and abstract level, something that is necessary for them to be applied to make predictions across a wide variety of contexts beyond the ones in which they were observed. At the same time, these insights need to be specified clearly enough so that the resulting predictions are determinate and thus falsifiable across these different contexts.

While the value of positive rational choice for interpretative theory has not been discussed in much detail within either literature, a case for this can be constructed fairly straightforwardly. Given that rational interpretation can be used to generate preference and belief assumptions for the generation of predictions, it follows that the determinacy and accuracy of such predictions can be used to refine the interpretive methodology used by the ethnographer. This is true particularly for formal, systematic techniques of interpretation that emphasize reliability. Such techniques are most common in cognitive anthropology (D'Andrade 1995; Strauss and Quinn 1997; Holland and Quinn 1987; and D'Andrade and Strauss 1992).⁷ which has over the past several years borrowed many of its formalization from cognitive psychology (most notably schemata) and has emphasized interpretation based upon interrogation rather than observation of action. However, while they have not traditionally been used in this fashion, nothing in such formalizations *per se* that prevents them from being adapted to a choice-theoretic framework, particularly given that the schema formalization allows the representation of motivation as well as cognition (Fiske and Clarke 1982; Fiske and Pavelchak 1986; Mandler 1993).⁸

Indeed, it is interesting that while cognitive anthropologists share much of the concern with formal precision and reliability with their positive rational choice colleagues in other disciplines, they have nonetheless not embraced a rational choice-style formal framework for their analysis. The most likely reason for this is that rational choice in anthropology, unlike in other social science disciplines, has generally been associated with informal, intuitive methods rather than formal, algorithmic methods. This is an irony deserving analysis in its own right. But whatever the cause for their failure to communicate earlier, beginning to do so would likely lead to the improvement of methodology on both sides and a virtuous feedback loop that improves the accuracy of both interpretive and predictive theory.

Conclusion

Despite the great differences, the fact that the rational choice model is both ubiquitous and controversial as a positive, normative, and interpretive model cannot simply be a matter of coincidence. There must be something about such assumptions that make them appealing for understanding action, even if they each fail to encompass many important elements of action. Once we understand the roots of this common appeal (and of the accompanying limitations), it may be possible to gain a better idea of how these three approaches might be used to complement one another. In order to gain such an understanding, it is important to look at characteristics of the approach that are shared across all three realms. The one thing that all rational choice perspectives share is a not any particular formal apparatus or a view of optimization, but a common concern with preferences (motivations, affects, desires, values, tastes) and beliefs (cognitions, ideas, knowledge, information) as the systematic driving forces behind action. Hence it is intentional analysis, and the way it facilitates *verstehen*, that seems to cause analysts to adopt a rational choice approach, even when they do not explicitly avow it (Hechter and Kanazawa 1997, 195; Chai 2001, 27). Rational choice is perhaps the only major approach whose core approach is built upon the theorist imagining himself or herself in the position of the subject, then using this to predict, prescribe, or understand the subject's actions.

Notes

1. He himself acknowledged that much of sociological theory actually fell outside the confines of what he was dubbing the “sociological approach”. See Barry 1970, 4,
2. For broad coverage of recent debates on the rationalists, see Gennaro and Huenemann 2002.
3. For more discussions, see Campbell and Sowden 1985.
4. For a survey of the hypothesis and the controversy over this hypothesis, see Gumperz and Levinson 1996.
5. There have in fact been some pioneering efforts to tie together economic and philosophical views of the “commitment” issue in such a way. See for instance Sugden 1991, 778-782; Hampton 1992, 224-8 for a comparison between Frank’s theory and that of Gauthier and McClennen.
6. He also refers to normative rational choice as “evaluative”. See Harrison 1979, intro.
7. Cognitive anthropology grew out of the field of ethnoscience, which focused on constructing linguistic maps of difference societies, but it has expanded its purview to all aspects of society. See Sturtevant 1964 for a discussion of the goals of the original ethnoscience.
8. It is true the schemata formalization does not have attached to it a uniform, general set of assumptions as does the expected-utility or game-theoretic formalizations used in rational choice, there are certain assumptions that are often associated with its use in cognitive psychology that may be seen as contrary to at least the conventional rational choice model. These include limits to complexity and selective filtering of incoming information. However, such assumptions rarely play much of a role in the use of schemata in cognitive anthropology, and are at any rate consistent with a bounded version of rational choice.

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