

# The Rational Man Model in Social and Political Studies: A Plea for Relevance<sup>\*</sup>

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This paper examines the assumptions of the Rational Man (RM) model familiar in social and political studies. It is observed that the model is too restrictive in its explaining events and behavior in social and political situations. It is suggested that the assumptions of RM model should be relaxed using the familiar methods and techniques of elementary formal logic. The concept of relevance is then introduced to take account of a “weaker” formal requirement in an attempt to explain events and processes in human action and/or behavior. The concept of “justification by reasons” is then introduced as a necessary though not sufficient requirement of explaining events and processes in social and political studies.

*Keywords:* rational, model, logic, quantifiers, relevance, justification

## Introduction

The literature on contemporary normative and political theory reveals that the explanatory concept of rationality plays a prominent role. Yet, there is no single and universally accepted account of rationality. Although the Rational Man (henceforth the RM) model familiar in social, economic, political, and strategic studies enjoys a privileged position of near orthodoxy, it has not been immune from criticisms. The aim of this paper is not to rehearse these criticisms here, but to provide an outline for an alternative conception to the RM model in explaining human choices and behavior. After an examination of the assumptions of the RM model and the kindred notions of choice and preference implicit therein, the alternative conception that is being developed here relaxes the “strong” requirements of logical derivability characteristic of the RM model by reversing the order of quantifiers, a method familiar in elementary logic (Mates, 1965; Quine, 1950). The result is thus a “weaker” requirement characteristic of the alternative conception tentatively referred to in this discussion as that of the concept of relevance<sup>1</sup>. Inter alia, it is concluded that “justification by reasons”, in the sense of having good reasons for one’s arguments and analyses, capture the significance of the alternative conception that is adumbrated in this paper.

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<sup>1</sup> I hesitate to call the alternative view suggested here—a model—since it does not have nearly the features of definiteness, precision, rigor, and predictive power associated with the RM model. But for want of a convenient label, I shall call it simply the concept of relevance.

### The Assumptions of the RM Model

In its general and unanalyzed form, the RM model purports to explain the behavior of individuals under various situations. In situations involving conflict as well as cooperation, in situation where decisions are made where information is available as well as the lack of it, in situations under certainty and uncertainty, in risk-bearing situation, etc. It will be necessary to distinguish between the different senses in which the notion of rationality has been used to explain the behavior of individuals in these situations. There are, say, important difference, difficulties, and asymmetries in the use of the concept of rationality in describing crisis situations as opposed to conflict situations (Riker, & Peter, 1973; Parfit, 1984; Gauthier, 1986; Barry, 1989). Indeed there are difficult problems about what is to count as rational behavior. The author shall, however, leave the discussion of these issues for another occasion, but now The author shall turn to state the assumptions of the RM model.

As the name indicates, the RM model requires the adducing of explicitly clearly stated objectives. Whether most people think largely in terms of the model need not concern us here. For a glance at the literature of, say, strategic and game theories, the neo-classical model of the “economic man”, and the more recent discussion of the role of rationality in political and moral philosophy clearly show their starting point to be assumptions entailed by the RM model: rational, consistent, and value-maximizing individual who pursues goals and objectives within specified constraints.

Thus it is apparent that the RM model postulates the existence of an objective of some specified kind, say,  $\emptyset$ , at a particular time and place, whose realization depends upon the existence of some specific (means) conditions,  $a_1...a_n$ , at certain related times and places, which reveal the existence of the objective  $\emptyset$  as a typical consequence. To generalize: For all cases of  $x$  (where “ $x$ ” ranges over human action), if the antecedent conditions  $a_1...a_n$ , then it will have the further  $\emptyset$ , that an objective of the type in question will be realized within a given time and place. Formally,

$$\exists a_1, \dots, \exists a_n \exists \emptyset \forall (x): a_1(x) \& \dots a_n(x) \rightarrow \emptyset(x) \quad (1)$$

Now to anticipate, the alternative conception adumbrated here—that of the concept of relevance (Sec. IV), reverses the order of the quantifiers by merely requiring that for any case put forward, there must be some differentiating feature, say,  $\phi$ , why the “stronger” form of the RM model does not hold in this case. This can be expressed positively:

$$\forall (x) \exists a \exists \phi: a_1(x) \& a_n(x) \& \phi(x) \rightarrow \emptyset(x) \quad (2)$$

Note that in the ease of (2), the universal quantifier comes before the existential quantifiers. By reversing the “stronger” form of the RM model expressed in (1), to a “weaker” form in (2), is all that is necessary and all that the concept of relevance requires. The author shall, however, leave the analysis of this point to a later stage in the discussion. Instead, we shall look at complimentary attempts to analyze the concept of rationality.

### An Illustrative Application of the RM Model

“Rationality” is defined purely in terms “of a one-dimensional ordering of all possible alternatives” (Arrow, 1951; Mele & Piers, 2004). Thus “the assumption of rational behavior- not just intelligent behavior, but of behavior motivated by a conscious calculation of advantages... is based on an explicit and internal consistent value system” (Schelling, 1960, p. 4), But the assumption of rationality has not been put forth without any justification, however. For as Schelling succinctly (1960) observes,

...it(i.e. the assumptions of rational behavior) gives a grip of the subject that is peculiarly conducive to the development of theory. It permits us to identify our own analytical processes with those of the hypothetical participants in a conflict; and by demanding certain kinds of consistency in behavior of our hypothetical participants; we can examine alternation courses of behavior according to whether or not they meet those standards of consistency. The premise of "rational behavior" is a potent one for the production of theory. (p. 4)

In situations involving conflict, then, Schelling takes the concept of rationality not only as an explicit postulate, but also as a device "to modify the postulate and examine its meaning and to take some of the mystery out of it... The paradoxical role of "rationality" in these conflict situations provides as evidence of the likely help that a systematic theory could provide. What is implied by the "paradoxical role of 'rationality'" here is that analysis of strategic behavior "often does contradict common sense or accepted rules. It is not true... that in the face of a threat it is invariably an advantage to be rational, particularly if the fact of being rational or irrational cannot be concealed" (Schelling, 1960, p. 18).

Thus Schelling and those influenced by him endorse the use of deductive models in the study of strategy, and related fields as invaluable. In particular, a comparison of the behavior of individuals, groups, or nation-states in conflict, on the one hand and the behavior of firms in competition on the other hand provides fruitful analogies. Schelling, then, sees the game theory as another systematization of strategies that is valuable for theoretical understanding as well as guide to action. But he is also careful to draw from game theory those situations in which the antagonists are completely in conflict, in contrast to those situations where the participants are interdependent in certain ways situations which, he observes, are much closer to reality.

Moreover, he is careful to point out that conflicts cannot be (assimilated and) analyzed under a single theory of the "strategy of conflict". Instead, conflict between individuals, between groups, or between nation-states is analyzed in terms of a series of competition, and the stakes are too unlike each other to be reduced to a common measure: conflict and cooperation, bargaining and coordination are mixed in diverse and significant ways. The problem of uncertainty in situation of this sort requires that the players or actors make a complex choice of means to attain the range of goals and objectives that have been chosen.

### **Choice or Preference**

Now one of the more interesting issues associated with the concept of "rationality" is that of choice or preference. It is this that needs explication in order to show its connection with that of rationality.

Individuals or groups of individuals are concerned with making all sorts of choices in one way or another, particularly in situations where they are confronted with alternative courses of action. In most cases, the decision maker will have only limited or incomplete information about the true state of affairs and the consequence of each possible act. The problem is to choose an act that is optimal, relative to the information available, and according to some definite criteria of optimality.

Thus an illustration here will be in order, say, in both fields of game-theoretic strategy and economic analysis (Richardson, 1969; Sen, 1982; Howard, 1971; Hollis, & Edward, 1975). Household, for example, choose what kinds of quantities of goods and services to buy with their incomes, and how to earn those incomes by the sale of certain services. Firms choose what kinds and quantities of factors to buy and goods to produce. Government formulates and chooses policies. The end product of the whole set of such choices made within an economic or political system, brought about by the interaction of the forces that they generate, is a particular state

of affairs. In analyzing the choice situations and those consequences of choices, economic and political systems rely on a standard form of the choice situation. The decision maker, whether this happens to be a person or group of persons, has a particular goal or objective but is limited or constrained by factors beyond his control to a particular range of courses of action from among which he can choose. The problem of scarcity of resources or limited information manifests itself in the fact that the constant is binding, that is, it does not allow the complete achievement of the objective. If he is rational, he will maximize the extent to which his objective is achieved.

For the purpose of the analyst, it is convenient to express that objective as an index which the decision maker attempts to maximize or minimize. If expressed in functional form, such an index can be quite general, but its expression in that general form permits the analyst to use an analytical device, say, marginal analysis. Using such a device or method, the analyst can derive a rational choice for any given objective and constraint, but he must have both objective and constraint, and he must distinguish between them. Psychological factors like what motivates the individual are excluded (for reasons of parsimony and theoretical simplicity) and by the introduction of an important device called the utility function. Thus given this assumption, the individual is then able to maximize utility, and utility is here defined as that which the individual tries to maximize (Winch, 1971; Duncen Luce, & Howard, 1957).

Except for the reluctance of analyst in strategic studies to formulate strategic goals and objectives into an explicit utility function, say, in economic analysis (just described), the dominant pattern of inference is clearly analogous to that of utility maximization. And this can be generalized in the form of a principle which may be stated unambiguously as follows: "When in a situation of type  $S_1...S_n$ , a rational agent A in a situation of that type, always does  $x$ ".

Now it becomes apparent that the RM model exhibits the following characteristics: the model conforms to the formal requirements explicit in Sec II (1); that is, in situations involving strategic considerations, objectives, goals, ends-in-view, etc. The assumption that the decision maker (as a rational agent) is made explicit by a tacit convention governing the attribution of strategies and objectives to be achieved. Thus the concept of a rational choice is broadly strategic in nature.

### **An Alternative Conception: The Concept of Relevance**

Now there are instances of individual human behavior which do not at all conform to the RM model. In particular, the model requires that a given human action is the outcome of rational deliberation based on specific strategies and objectives. But since it is impossible, even under the best of conditions, to ascertain all the considerations that may be entered into the agents deliberation that may have influenced his decision, the most favorable interpretation that the agent had in a given situation and since he acted in a manner expected of a rational individual in such situations, it is plausible to suppose that whatever considerations may have figured in his deliberation had no decisive influence on its outcome in this case, the agents decision is thus accounted for by the specific strategies and objectives.

Yet it must be clear by now as (Sec. III) makes explicit that although the RM model offers a formally attractive account of rationality, it is not the only account. An alternative conception that is suggested here is equally plausible and (I hope) convincing. It is to this that I shall now turn.

There is a sense in which the concept of relevance can provide an answer to the question: "Why did A

(where A may be a person, group of persons, government, nation-state, etc.) do  $x$ ?” by a proposition of the form: A was in a situation of type  $S_1...S_n$ , and in a situation of that type, the thing to do is  $x$ ”; or simply, “A was in a situation of type  $s$  (whole description would presumably include a specification of A’s objectives), and in such a situation, the thing to do is  $x$ ”.

Providing reasons, then, for a particular action, just noted, implies that given a certain type of decision situation, there exists a feature which uniquely singles out one particular course of action as “the thing to do”. This is captured by Sec. II(2), where a differentiating feature, say,  $\phi$ , singles out that feature. To show that the decision maker or agent had good reasons for his actions, an explanation must include, not necessarily a general hypothesis (of that sort assumed by the RM model), but, say, a “principle of action”, which expresses a proposition of the form: “When in a situation of type,  $S_1...S_n$ , the thing to do is  $x$ . Thus it is plausible to assert that an explanation a decision maker or an agent provides in justification of his action is a relevant explanation. Here we use the term “justification” to mean having good reason for one’s arguments and analyses. Arguments and analyses that are amenable to justification, to use Stephen Toulmin’s important terminological distinction, are substantial and not analytic in form. Substantial arguments are often open to objection on the ground that the conclusions drawn are not entailed by the premises (Toulmin, 1958, pp. 123-127).

Thus criticisms leveled at so-called “informal arguments”, of the type common, say, in the social sciences, rest on the failure to recognize the distinction between analytic and substantial arguments. Toulmin and other writers have pointed out that a practical argument is substantial, rather than analytic. An analytic argument is one in which “the backing for the warrant authorizing it includes, explicitly or implicitly, the information conveyed in the conclusion itself, while a substantial argument is one “where the backing for the warrant does not contain the information conveyed in the conclusion” (Toulmin, 1958, p. 125). The distinction depends on whether a given argument and the backing together entail the conclusion. It is apparent that in analytic arguments they do, while in substantial arguments they do not.

Moreover, in the case of an analytic argument, the rules of formal logical inference are supported by the premises. In the case of the substantial argument, the warrant will include these rules of inference, but it must also include further rules or conditions which permit the formally inadmissible steps required to introduce whatever in the conclusion is not contained in the premises. Thus what is asserted of a practical argument must include the condition: that is, that what is desirable (to anyone) provides a reason for acting (for anyone). This condition is neither a definition nor an analytic truth. All that is asserted in the case of practical inference is that what is desirable provides a reason for acting; so that from premises containing desirability conditions, a conclusion containing “ought” may be derived.

But justification arguments, in the sense of providing good reason for one’s claims and analyses, have in addition, special features of their own: The person concerned is usually for more deeply and personally committed or involved than in an ordinary argument. The person is therefore likely to approach the question from a committed point of view, looking for reasons to support a stand, already taken, rather than seeking mere understanding or explanation. The justification demands less rigorous standards because it does not require proof or certainty or even an overwhelming evidence to support its stand, but only adequate reasons.

However, it does not follow that we cannot lay down certain rules in formulating decisions or policies, and the attendant reasons for their justifications, even though we cannot specify fully what decisions or policies are

the right ones. All statements about human choices and decisions involved the concept of relevance. Any conclusions one claims to have reached by considered judgment and reflection must be supported by adducing some fact in their favor, and it cannot be true that any statement or fact would be as good as any other, for then the conclusions would be quite arbitrary<sup>2</sup>. It follows that non-arbitrariness entails some standard of relevance.

Indeed some writers (Sinnott-Armstrong, & Robert, 2005, pp. 17-49) have suggested, following the philosopher Paul Grice who first examined and generated rules for “conversational implicatures”, that is, rules that govern linguistic and/or speech acts where people in certain situations are engaged in a common goal in conversing with one another. Thus a “rule of relevance” (say, be relevant!) of the sort Grice formulated (Grice, 1989), may be easy to state, it is not altogether easy to explain; and this is because the concept of relevance pace justification is a complex notion. There is no such thing as the justification for an action. No justification is going to be mistake-proof; a number of justifications may be possible. Much will depend on the standpoint from which the justification is made. Moreover, there may be different degrees of justification and one of the difficult problems is to determine the degree appropriate to a given situation or case.

With particular situations in human affairs, there is the problem of infinite complexity. We cannot completely specify the features that characterize a situation, and however fully we may have specified it, we may always have left out some relevant feature. Hence the belief that events in human affairs are concrete rather than abstract. No finite set of “abstract” characteristics can exhaust all that can be truthfully and relevantly said about such events and situations. Nevertheless although no finite set of characteristic describes those situations without remainder, when we argue about situations or problems in human affairs, it is by virtue of some of the general characteristics or features of the case that we adduce the arguments that we do.

We can now state that a necessary condition of an argument’s being a substantial one that it is based on certain general characteristics of the subject or topic under consideration and as a necessary condition of a conclusions being the conclusion of a substantial argument that it should be in some sense justifiable.

### Conclusion

To put this discussion in perspective, the author shall conclude with the following statements.

First, that there is no justification for the claim that all human actions to really count as rational, must take the form of the RM model. Thus in order to answer the question, “Why”? arguments have been canvassed to show that a construal of the concept of relevance is equally plausible. And we should be skeptical of the claim that the RM model provides the paradigm of all rational action, while conceding that the model exemplifies a type of explanation which on purely logical grounds exhibited a wide intellectual appeal.

Second, an alternative conception-relevance-one not easily amendable to a precise and exact formulation is here proposed, and required our judgment to put an appropriate construal upon the concept to recognize that what was done was relative to the adduced reasons or evidence. Perhaps the phrase “justification by reasons”, neatly captures the significance of what is being suggested here and does not imply that this account is perfectly

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<sup>2</sup> In saying this, I do not mean to suggest that the conclusions can be deduced or logically derived from the facts, or that the facts entail the conclusions. This would be absurd. For the relations of logical entailment holds only between propositions. I maintain only that if it is concerned with human affair at all, it must be based on, among other things, some facts about the human affairs in question.

adequate for theoretical or practical purposes, and that nothing further need be attempted.

The account thus outlined must win acceptance or “have to be withdrawn in the face of evidence and criticism;” (Craik, 1943; Lucas, 1966) provided that there is some criticism, some argument, not necessarily a piece of empirical evidence or the result of an experiment, and in some way connected with the issue or problem under discussion and/or examination, or, in its broader perspective, the rest of human knowledge.

Lastly, it may be disputed whether this is all that the concept of relevance entails, nor even that it is a sufficient condition. For our purpose, however, a necessary condition is enough: of empirical evidence or the result of an experiment, and in some way connected with the issue or problem under discussion and/or examination, or, in its broader perspective, the rest of human knowledge.

### References

- Arrow, K. A. 1963 (1951). *Social choice, and individual values*. N.Y.: John Wiley, & Sons.
- Barry, B. (1989). *A treatise on social justice: Theories of justice*. Berkley, CA: University of California Press.
- Craik, K. J. W. (1943). *The nature of explanation*. Cambridge: Cambridge University Press.
- Duncen Luce, R., & Howard, R. (1957). *Games and decisions: Introduction and critical survey*. New York: John Wiley & Sons, Inc.
- Gauthier, D. (1986). *Morals by agreement*. Oxford: Clarendon Press.
- Grice, H. P. (1989). *Studies in the way of words*. Cambridge, MA: Harvard University Press.
- Hollis, M., & Edward, J. N. (1975). *Rational economic man: A philosophical critique of neo-classical economics*. Cambridge: Cambridge University Press.
- Howard, N. (1971). *Paradoxes of rationality: Theory of metagames and political behavior*.
- Lucas, J. R. (1966). *Principles of politics*. Oxford: Oxford University Press.
- Mates, B. 1972 (1965). *Elementary logic*. New York: Oxford University Press.
- Mele, A. R., & Piers, R. (2004). *The Oxford handbook of rationality*. Oxford: University Press.
- Parfit, D. (1984). *Reasons and persons*. Oxford: Clarendon Press.
- Quine, W. V. 1982 (1950). *Methods of logic*. Cambridge, MA: Harvard University Press.
- Richardson, G. B. (1969). *Economic theory*. London: Hutchison Library.
- Riker, W. H., & Peter, C. O. (1973). *An introduction to positive political theory*. Englewood Cliffs, N.J.: Prentice Hall.
- Schelling, T. C. 1970 (1960). *The strategy of conflict*. Cambridge, MA: Harvard University Press.
- Sen, A. K. (1982). *Welfare and measurement*. Cambridge, MA: The MIT Press.
- Sinnott-Armstrong, W., & Robert, F. 2010 (2005). *Understanding arguments: An introduction to informal logic*. Belmont, CA: Wadsworth Cengage Learning.
- Toulmin, S. (1958). *The uses of argument*. Cambridge: Cambridge University Press.
- Winch, D. M. (1971). *Analytical welfare economics*. London: Penguin Books Ltd.