

Pareto's Sociological Model of Man

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In his pathbreaking book *Models of man*, Martin Hollis distinguishes between two models of man: a passive conception of man, which he calls *Plastic Man* and an active conception to which he attaches the term *Autonomous Man*. Although the distinction seems simple, Hollis's discussion makes it clear that each of these models is quite complex, the former being more familiar and therefore more easily discernable, the other more vague and tentative. For my purpose it will be sufficient to make a crude distinction by describing the polar cases, leaving it to the reader to explore the subtleties in the book.

Those who use the Plastic Man conception, "are inclined to treat men as super-rats or super-pigeons, armed with stimulus-response theories and hypothetico-deductive tests for causal regularities" [p. 16]. This model is by far the characteristic model of the social sciences in general, and especially economics. On the other hand, "Autonomous Man is to be self-caused and self-explanatory," whose actions cannot be wholly explained by causal laws and conditions [pp. 14-15]. Autonomous man is not satisfied merely to react to stimulus in a mechanical manner, but instead attempts to understand the nature of the environment in which he makes decisions in order to achieve his goals. His behavior is purposive.

Hollis does not go far enough in his development of Autonomous Man, since he limits its actions to a single actor. This constrains the actor to accepting given institutions (and/or rules) since he cannot count on being helped or hindered by others in changing those constraints [p. 187]. So neither the Plastic Man or Autonomous Man framework adequately deals with the problem of change in general or social changes in particular.

Hollis paints with a very broad brush, which renders his analysis too ambiguous. Also by its very nature, important exceptions are often overlooked. In economics, both models prevail so that we can give more precise meaning to his concepts. For example, the neo-classical theories of utility and of the firm, with their assumption of perfect competition are examples of the Plastic Man model, whereas Game Theory,

serves as an example of the Autonomous Man model of behaviour. So in economics we have some familiar specific theoretical examples which serve as illustrations of the two models of man posed by Hollis. An examination of these in the context of economics would be interesting in the sense of filling out his discussion, but the more interesting problem is the one which neither model as developed by Hollis deals with, namely the human problem of interaction. Such a model exists in Pareto's sociology and is cast in terms of utility theory. Indeed we shall see in Pareto's work there is a third model of man; which I shall call Pareto's sociological model of man.

Some Initial Conceptions

Before going into Pareto's theory, it will be necessary to distinguish between types of utilities. Pareto coined the term ophelimity to designate satisfaction deriving from economic sources. Whereas he used the term "utility" as satisfactions deriving from any source including economic. "Utility" has a broader meaning in Pareto's usage than the current use of the term in economics. Also, Pareto distinguished between the individual and collective both in the case of ophelimity and utility. Table 1 summarizes these distinctions, and compares them with terms in current usage. Now let us examine Pareto's terms.

Table 1. Pareto's Terms and Terms in Current Usage

Pareto's Term	Current Usage	Reference	Source of Satisfaction
1. Individual ophelimity	Personal utility	Individual	Economic
2. Community ophelimity	Social utility	Any group of individuals, but without consideration of collective apart	Economic
3. Individual utility	Personal utility	Individual	Any source
4. Social utility	Social utility	Any group of individuals, but without consideration of collective apart from individual interest	Any source
5. Utility of Society	Social utility	Any structurally integrated group, with consideration of collective apart from individual interest.	Any source

Individual "ophelimity" is well known to economists, although not under that label, having derived from Pareto. Here we have the familiar indifference curve analysis where individual equilibrium is given by the condition that the marginal rates at substitution are equal to price ratios of goods. Community ophelimity can be understood within the familiar Pareto-Edgeworth Box diagram, in this case a community of two individuals, possessing two goods, in an exchange framework. Within this context a Pareto Optimum is defined. All this is familiar to economists and we need not devote more space to it. Suffice it to say that both individual and community ophelimity involved *impersonal* interaction, since each actor is not aware of or cares about the gains or losses experienced by others. In other words, ophelimities are independent, not dependent.

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In his sociology, Pareto broadened the concept of satisfactions to include not only economic, but those deriving from all sources, and utilities are now "dependent" in that the individual's welfare is made to depend not only on his own satisfactions, but also those of others.

The framework developed below follows Pareto and my elaboration of his work.¹ Suppose that each individual in the social system possesses certain precepts regarding what is "best" for himself and for others. That is to say each individual in the social system has a subjective social welfare function; he takes account of the utilities of the individuals in the social system as he imagines them. The term "utilities" here is used in a broader sense than economic satisfaction; it designates satisfactions deriving from all sources, economic, political, religious, ethical, moral, etc.

If individuals' precepts regarding justice are influenced by their class positions, interests, etc., we have heterogeneous individuals and heterogeneous conceptions of justice. We are faced with the problem of individual heterogeneity and its resolution. It is at this point that an important and often neglected function of government enters the scene. A government makes subjective interpersonal comparisons of individuals' subjective interpersonal comparisons. In other words, the government has a (political) welfare function. What is important for my purposes is to establish an important function of government, namely reconciling the problem of heterogeneity. Individuals are willing to submit to higher authority (government) to overcome the problem of heterogeneity, in order to create a determinate social system.

The government imposes its political welfare function upon individuals. Individuals reasoning from the point of view of their own subjective welfare functions may be dissatisfied with the government's course, but, then, one could conceive of very few instances of unanimity, because of the heterogeneity of individual welfare functions. This is not to suggest that individuals passively allow governments to pursue their own optimum paths. The interaction of individuals and governments and the process of determination of social welfare functions in Paretian theory will be discussed below. Before going on to Pareto's approach to the problem, I should like to add an additional dimension, namely, "social utility" in contradistinction to "utility of society," since Pareto attached some significance to the distinction.

Social utility is a concept which is *individualistic* in orientation referring to any group of individuals but without consideration of the collective apart from the

individual interests. Utility of society refers to any structurally integrated group with consideration of collective apart from individual interests. The social welfare functions deriving from each of these references may not correspond.

It might be worthwhile to examine the distinction between social utility and utility of society in greater detail, since the distinction is particularly relevant to discussions on social welfare functions. Pareto's analysis is very general, and he abstracts from various political institutions which attempt to deal in one way or another with the problem of heterogeneous utilities. All government policy, regardless of the form of government, involves a social welfare function, W . Nevertheless, the manner in which W is determined is extremely important, depending on whether the norm chosen is social utility or utility of society. A quotation from Pareto makes the distinction quite clear:

Let us imagine a community so situated that a strict choice has to be made between a very wealthy community with large inequalities in income among its members and a poor community with approximately equal incomes. A policy of maximum utility of the community may lead to the first state, a policy of maximum utility for the community to the second. We say may, because results will depend upon the coefficients that are used in making the heterogeneous utilities of the various social classes homogeneous. The admirer of the "superman" will assign a coefficient of approximately zero to the utility of the lower classes, and get a point of equilibrium very close to a state where large inequalities prevail. The lover of equality will assign a high coefficient to the utility of the lower classes and get a point of equilibrium very close to the equalitarian condition.

Social utility, then, has an individualistic orientation, whereas utility of society considers the well-being of society quite apart from the individual interests. The welfare function of a government which sets out to maximize social utility will be quite different from a welfare function deriving from considerations of maximization of utility of society. In reality a government often reasons from both points of view. Its domestic policies may be oriented toward social utility whereas its foreign policies may involve considerations of utility of society. Or during national emergencies, individual interests may be sacrificed in consideration of utility of society. In order to simplify the analysis in what follows, the main concern will be with social utility, although the discussion can be extended to include utility of society. Also, the social utility reference is more in keeping with the individualistic orientation of Western civilization.

Individual Utility in Relation to Social Utility

From what has been said thus far, there need not be a coincidence of individual utility and social utility, even in cases in which the individual does not stand in conflict with the norms obtaining in society. In such cases one might find the points of maximum individual utility and social utility do not coincide. Suppose an individual possesses certain precepts regarding what is "beneficial" for himself and others (that is, a subjective social welfare function), and these precepts are reflected through his observances of norms obtaining in society. In such cases one might find the points of maximum individual utility and social utility do not coincide. In Figure 1, A is the extreme point representing strictest observance of every norm obtaining in society by an individual, and B is another extreme point representing violation of norms that are not recognized as absolutely indispensable.

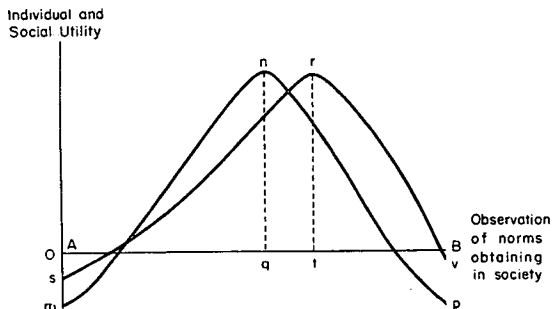


Figure 1

The *mnp* curve indicates the utility curve of the individual, who suffers a "damage" at *A* (due to obstacles he encounters, that is, the social preferences of other individuals with whom he has interpersonal relations) and attains a maximum benefit at *n*, thereafter diminishing and becoming a loss at *B* (again due to the effects of interpersonal relations). The *srv* curve is the utility deriving to a society from the point of view of, say, public authorities or other informed members of the community, from the fact of the individual's faithful observance of norms. The government (public authority) has no knowledge of *mnp*, but it does have some idea of *srv*. Social utility is greatest at point *r*. At point *q*, the maximum individual utility is obtained, while point *t* is the maximum social utility deriving through the individual's conduct. Society, then, would derive a maximum utility from the individual if he were to observe those norms corresponding to *t*. But from the individual's viewpoint, *t* would not represent a maximum of utility for him; he would prefer to observe those norms *q*, at which his utility is at a maximum. Therefore, even when the individual is not at odds with the norms obtaining in society, the social utility resulting from his preferred position may not be at a maximum.

The Interaction of Individual and Social or Political Welfare Functions and the Political Process

A government observes an individual at *q* and it knows, or thinks it knows, that, from the point of view of social utility society will gain if he moves from *q* to *t*. In other words, it has assigned to the individual's utility, *U*, a coefficient, *M*, reflected in the political welfare function, *W*. The problem then is to move the individual from

q to t . The individual may be forced to move to t , with the *direct* consequence that his utility declines. It may be the case that he later experiences an *indirect* gain in utility at t equal to or greater than qn . In such a case, the movement from q to t was warranted both from the individual's subjective view and from the view of "social utility." This case implies a transformation of the individual's subjective welfare function. Or the government may wish to induce the individual to move from q to t voluntarily. This is where "derivations" enter the scene in Paretian utility theory. The term "derivations" was coined by Pareto to designate arguments intended to spur individuals to action. The form of the arguments used to move the individual in a desired direction — scientific arguments, appeal to emotions, and so on — may be important from certain points of view. Regardless of the form, the purpose of the "derivations" is to convince the individual that a movement from q to t is to his advantage. In order to induce the individual to make the movement, it may be necessary to offer a promise of a gain, or even a fantastic gain, in utility. In short, the function of the derivation is to blend the individual's social preferences with those deriving from social utility. If the individual refuses to move in a "desired" direction, he is judged as ignorant, irrational, etc. These are also "derivations" which attempt to objectify the political welfare function, W , by suggesting that such persons are unworthy of consideration.⁴

The above can be viewed in another way. Instead of mere violations of norms, transformation and reforms of norms obtaining in society may be considered (Pareto, 1935, IV, 1474). Individuals observing someone at t may attempt to convince public authorities or other individuals that social utility will be at a maximum if public policy induced movements from t to q . Again derivations enter the scene, in this case to transform the political welfare function, W , to the individuals' subjective views of what is best for society, that is, what is best according to their subjective welfare functions.

In the above examples, the utility of one individual or a group of individuals having similar subjective welfare functions was examined. In reality, the government encounters many different individual welfare functions, so that the situation is much more complex. Nevertheless, the above examples serve to show the role that the Paretian theory of derivations plays in the determination of W . In other words, the Paretian theory of derivation shows how public authority acting on the basis of a political welfare function, W , influences individual welfare functions and how, in turn, individuals exert themselves to transform their value functions into the social welfare function, W , through the political process. This interaction describes in a very general way the nature of the political process, without any particular reference to specific political institutions.

The Paretian analysis also suggests the limitations of studies which describe the political process in a voting framework. Voting may serve to reveal social preferences with regard to a limited number of proposals of specific nature. But within the broader framework of state and national government, all that individuals can do is to elect representatives and administrators. Once a government is constituted, the problem of complex individual utilities manifests itself in the slogans, creeds, ideals, etc., of individuals and governments in their reciprocal attempts to influence movements in directions deemed "desirable." Hence, we are in a Paretian world.

Conclusion

It should be clear that Pareto's sociological model of man differs fundamentally from the Plastic and Autonomous models of man discussed earlier. Plastic Man is comparable to Pareto's ophelimity theory whereas Autonomous Man is similar to that of modern game theory. But neither represents a model of interpersonal interaction where the goal is to *alter* the environment (or rules) as is the case with Pareto's model, in keeping with individuals' desires to maximize welfare. In this sense, Hollis's Autonomous Man stops where Pareto began 64 years earlier.⁵

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Notes

1. See Vilfredo Pareto, "Il massimo di utilità per una collectivata in sociologia," *Giornale degli economisti* and Vincent Tarascio, "Paretian Welfare Theory: Some Neglected Aspects," *Journal of Political Economy* and Tarascio, "Theories of Justice, Social Action, and the State," *Eastern Economic Journal*. The analysis of Pareto's utility theory in this article follows that presented in the two prior works.
2. Pareto (1935, IV, 1473); see also Reference column in Table 1.
3. Figure 1 is essentially Pareto's diagram, with minor modifications for purposes of clarity; see Pareto (1935, IV, 1473-74).
4. Pareto gave many examples of such situations (see Pareto [1935, IV, 1617-22] for a notable example pertaining to the concept of "public needs").
5. One might argue that there are similarities between Autonomous Man and Pareto's sociological man since both attempt to use "reason" in their desire to understand. The similarity ends there because for Pareto "reasonings" are mere rationalizations of sentiments on an individual basis, and "derivations" in interpersonal interaction situations.

References

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