Pareto's *Trattato*

VINCENT J. TARASCIO*

is probably well-known by now that the publication of Pareto's *Manuale d'economia politica* in 1906 represented an important transition from neoclassical economics to modern microeconomic theory. Both Paul Samuelson and Sir John Hicks, whose works became classics in the field, were very much influenced by Pareto's *Manuale*. What is not generally known is that by the time Pareto published his *Manuale*, economics had become almost a "side-line" for him. Indeed, after the publication of the *Manuale*, with exception of a few minor works, Pareto devoted himself exclusively to his research in sociology, which eventually was published as the *Trattato de sociologia generale*, in 1916.

On the surface, it would appear that Pareto, the economist, simply abandoned economics for a new field, one of little interest to economists. This impression is incorrect, and unfortunately, it has led to almost total ignorance (with the exception of Schumpeter and a handful of others) of Pareto's sociology by economists. What is more, such neglect had the effect of depriving the profession of the opportunity to come to grips with some important methodological issues relating to the problem of progress in economic science. In particular, Pareto rejected the idea that the failure of economic science to live up to expectations could be remedied by "better" theories within the context of existing methodology, a notion so prevalent today.

What has been overlooked is that the *Trattato* was more than an attempt at social science; it was a program for the reconstruction of economics, in particular, and the social sciences, in general. This reconstruction involved a widening of the scope of economics to account for the interdependence of economic and other social phenomena and the development of a theory of history to deal with the evolutionary character of human societies. The purpose of this paper is to reassess Pareto's treatise in the light of his methodological approach to his sociology. The paper will also serve to call attention to some important problems regarding the current state of economic science.

The Problem of Scope

In the *Trattato*, Pareto tells us what he perceives to be a fundamental obstacle to progress in economics, and the reasons why he turned to "sociology.

Evident in many other ways, too numerous to mention here, became the need of adding new considerations to those used in certain economic theories if one were to get closer to concrete realities.

A number of economists today are aware that the results of their science are more or less at variance with concrete fact, and are alive to the necessity of perfecting it. They go wrong, rather in their choice of means to that end. They try obtusely to get from their science alone the materials they know are needed for a closer approximation to fact; whereas they should resort to other sciences and
go into them thoroughly—not just incidentally—for their bearing on a given economic problem.

So they go round and round like squirrels in cages, chattering forever about "value," "capital," "interest," and so on, repeating for the hundredth time things known to everybody, and looking for some new "principle" that will give a "better" economics. Until economic science is much further advanced, "economic principles" are less important to the economists than the reciprocal bearings of the results of economics and the results of other social sciences. Many economists are paying no attention to such interrelations, for a minority of them is a long and fatiguing task requiring an enormous knowledge of facts; whereas anyone with a little imagination, a pen, and a few sheets of paper can relieve himself of a chat on "principles." 11

For Pareto, the shift in his research orientation from economics to "sociology" which represented a synthesis of specialized research for him, derives from the recognition of the mutual dependence between economic and other social phenomena. 12

It is one thing to advocate the synthesis of the theories of the individual social sciences as a means to progress, but it is quite another to attempt such a synthesis. One is confronted with some important practical problems. To begin, the idea of synthesis goes against the very need for specialization in the first place: the complexity of concrete social reality and the limitation of human capabilities. Pareto recognized the demanding nature of such an undertaking as evidenced in the above quotation.

Aside from the difficulty associated with the assimilation of social science knowledge, there is a more fundamental problem which renders the necessity for such assimilation questionable. Each social science reflects its own orientation and tradition. Therefore it is not surprising that much of what constitutes research in the other social sciences would be of little interest to economists. The type of synthesis that Pareto was advocating was selective, and of interest primarily to economists. Therefore his sociological theories were bound to be viewed as "superficial" from the point of view of a specialist in any of the particular social sciences.

We will return to this point later. Suffice it to say that Pareto's treatise on sociology was "economic" not so much because there was a great deal of economics in it, but because it was created with the economists' perspective in mind and, therefore, was economic in its orientation. Once this is understood it is not difficult to account for a part of its checkered history: it was generally ignored by its intended audience, but at the same time given serious consideration by non-economists.

While on the subject of the economists' perspectives, it might be worthwhile to point out another problem encountered by Pareto. In economics, the model of behavior was, and remains, that of rational economic agents who choose the most appropriate means to achieve limited and well-defined goals. To what extent is such a model applicable to the political process, where one encounters the problem of collective decision making with all its complexities? Add to this the multiplicity of poorly defined ends, incomplete information, an environment of uncertainty, and the role of ideologies and beliefs in such an environment, and the economic conception of rational behavior becomes dubious. As Pareto pointed out, in such an environment no individual or group of individuals possesses the information necessary to know what is "best" for society (a problem of collective decision-making) from an objective viewpoint. Of course, decisions are being made, but it is not clear that such decisions correspond to the economists' conception of rationality.

In order to make sense out of facts, investigators impose their own rationality on the facts. The result is that actions of actors, or most often their words, or the words of their contemporaries about such actions, take on the appearance of deriving from a logical behavior. Such behavior is assumed rather than demonstrated. 11 Pareto thus was raising the same issue as Marx, in the latter's sociology of knowledge, regarding the reliability of the observer's perceptions. Where Marx had attributed the problem's source to the influence of environmental agency on class perceptions (of the scientists), Pareto attributed the problem to the tendency of actors (and observers) to "explain" actions logically, and therefore accord to such actions a volitional character. For the individual actor, it may seem that his acts are volitional, but both Marx and Pareto stressed the importance of external factors in their influence upon behavior. In the case of Marx, such factors were reflected in classes, positions, and, in turn, derived from mode of production. Pareto stressed basic motivational complexes as distinct from specific patterns of explanation and therefore came closer to Freud, with whose work he was not familiar. The works of Marx, Pareto, and Freud represented a shift from the rationalism of nineteenth century to the subjectivism of the twentieth century with all its implications for social and historical interpretation.

Pareto's search for theories in the existing social science literature of his time was disappointing to say the least. To begin, very often such theories reflected a political or moral philosophy in vogue at the time. He needed something more permanent, more lasting, upon which to construct his theories, so he turned to history.

Pareto found or thought that he found that historical events were simply imposing the present on the past in their interpretations of history, and therefore such histories were worthless for his purpose. He described the absence of both scientific sociology and history. Nevertheless, he remained with history for that seemed to be the more appropriate place to search for relationships which were less time dependent. So Pareto discounted the ethical aspects of the historians' works although he used the "factual" content of such works as the raw material that he needed for his own theories.

The problem of ethical neutrality, although important for Pareto, it was not fundamental for him. His most crucial criticism had to do with the nature of intellectual activity itself, one involving epistemology. The process of "explanation" is in itself a rational process.

12Ibid.

14A major part of volume 1 of Pareto's sociology is devoted to this issue.
Pareto's Theory of Residues and Derivations

Our understanding of external events, current and historical, is based on the written words of others. These written words take on many forms, the most important of which can be categorized as quantitative and qualitative data, reports and analyses. Such forms may derive from contemporary writers or historical scholars writing the history of an earlier period. Together they form the source materials for historical research. Pareto relied on all these categories deriving from contemporary writers and historical research. Since he was interested in a general theory of history, he was not concerned with particular events in themselves, over the period encompassing ancient Greece to modern Europe, as were the various writers. Instead, Pareto saw, or thought he saw, that various writers writing about different historical periods were really describing similar things in different settings and circumstances. Because of the particularistic nature of such writings, they imparted a uniqueness to historical events which was the consequence of the nature of such studies. Although Pareto began with the various source materials, his more general perspective allowed him to discern similarities which were not apparent to particularistic writers. The custom of baptizing serves as an example:

Christians have the custom of baptism. If we knew the Christian procedures only one would not know whether and how it could be analyzed. Moreover, we have an explanation of it. We are told that the rite of baptism is celebrated in order to remove original sin. That still is not enough. If

we had no other facts of the same class to go by, we should find it difficult to isolate the elements in the complex phenomenon of baptism. But we do have other facts of that type. The pagans had lustral water, and they used it for purposes of purification. If we stopped at that, we might as well associate the use of water with the fact of purification. But other cases of baptism show that the use of water is not a constant element. Blood may be used for purification, and other substances as well. Nor is that all; there are numbers of rites which effect the same result. In cases where taboos have been violated...certain rites remove the pollution that a person has incurred in one set of circumstances or another. So the circle of similar facts widens, and in the great variety of devices and the many explanations that are given for their use the thing which remains constant is the feeling, the sentiment, that the integrity of an individual must be preserved whether the causes, real or imaginary, can be restored by certain rites. The given case, therefore, is made up of a constant element a, and a variable element b, the latter comprising the means that are used for restoring the individual's integrity and the reasons by which the efficacy of the means is presumably explained.

The above quotation is important because it illustrates Pareto's approach to a theory of history. By examining many historical "facts" from ancient Greece to modern Europe he distilled the "constant" elements from the many and varied concrete forms in which they occur throughout history. These constant elements he calls "residues," for obvious reasons. The rationalizations, too, vary over space and time, but essentially reflect the underlying residues. These rationalizations he calls "derivations." The second and third volumes of the Trattato are devoted to the analysis of residues and derivations, respectively.

Pareto's theory of history is an outgrowth of this distinction between logical and non-logical conduct. Individuals possess certain residues and they attempt to rationalize such through verbal statements. Pareto distills from the materials at his disposal six general classes of residues, each containing several sub-classes. These will be outlined briefly, keeping in mind that Pareto devotes an entire volume to them:

Class I. Combinations. This residue is the progressive element in human society. Much of what constitutes innovative activity is included in this class. Concrete examples of those endowed with this class of residues are speculators, industrial entrepreneurs, innovators, revolutionaries, religious prophets, revolutionary leaders, political, intellectual, and scientific, etc.

Class II. Group-persistences. These are the conservative elements in society. One characteristic of this class is that it provides stability to society. Concrete examples are renters, landowners, peasants, or more generally, those who have an interest in or support the prevailing institutions and resist changing values. Modern examples would be those doing "normal science" in a Kuhnian sense, bureaucrats, religious fundamentalists, and political reactionaries.

Class III. Need of Expressing Sentiments by External Acts. The best example of this is the "do something" mentality. Riots, wildcat strikes, demonstrations, religious revivalism, spontaneous acts of violence, etc. This residue is strongest in those endowed with class II residues.

Class IV. Sociality. This residue accounts for the fact that humans have been "social creatures" throughout recorded history. The sub-categories give some sense of its manifestations: need for uniformity, pity and cruelty, self-sacrifice for the good of others, social ranking, asceticism.

Class V. Integrity of the Individual and His Apparitions. This residue reflects the role...

PARETO'S TRATTATO 123
Society is divided into two classes of individuals—elite and non-elite. The former consists of leaders in every form of human activity, the latter contains the remainder, by far the largest group. For example, there are leaders among professional groups as well as non-professional groups, even leaders among thieves. The norms used to judge performance, and hence boss leadership recognition, vary among activities. The elites in turn are divided into two groups governing and non-governing, for the purpose of analyzing the political process. What emerges is a social stratification based on elites and non-elites and a political stratification consisting of governing and non-governing elites.

Circulation between the governing and non-governing elites has varied, historically. The governing elites may be closed or open, in varying degrees, to accessions by the non-governing elites. Sparta and Venice are examples of closed governing classes, while modern western democracies are examples of more or less open ones. Circulation of the elite refers to a process in which new members are brought into the group of governing elites and by which existing members drop out—what would be called today political mobility.

The style of government depends on the composition of Class I and II residues in the governing elites. If the governing elite is dominated by individuals strong in Class I residues, it tends to be adaptive, responsive and more apt to compromise. The use of force is avoided and disputes are often resolved by pacific means or by granting certain privileges to undermine discontent. Such governments tend to stress expediency and, therefore, take a short-run view of conditions. Governments dominated by individuals strong in Class II residues tend to be less responsive to change, less oriented towards economic growth and prosperity, more inclined to use force as an instrument of power, both domestically and internationally. Although such governments are able to resist domestic and foreign encroachments militarily, it does not follow that they are successful. Both domestic and international diplomatic blunders have often resulted in internal revolutions or lost foreign adventures. (Tsarist Russia serves as an example of both cases.)

For Pareto, a governing class which possesses the proper combination of individuals having Class I and Class II residues is not as likely to be driven to the extremes described above and is a government which is most likely to provide domestic political stability, defense of international interests, and economic prosperity. Nevertheless, although certain governments have displayed such optimal proportions of Class I and II residues among the governing elites for relatively long periods of time, ultimately the accumulation of either of the two classes leads towards one or the other extreme described above. Pareto emphasized the accumulation of Class I residues in the governing elites as eventually leading to the declining phase of the historical cycle.

Because of Pareto's theory of elites, one might be led to conclude that the rise and fall of nation-states depends solely on the governing elites. This would probably be the case in closed societies but in open societies where circulation of the elites exists, the governing elites take on the character of those who are governed, i.e., the non-governing elites. The non-governing elites possess either Class I or II residues, so that 'circulation of the elites' can, at least theoretically, result in the transformation of the composition of residues. Pareto is not clear on this point in his sociology; instead he merely examines the consequences of these changing proportions, without explaining systematically why these proportions change over time. However, Pa-
This third stage, that of verification, is obscured in the Trattato, primarily because of poor organization. Hence one is left with the impression that “verification” was more a matter of assertion than practice. Nevertheless, what has often been overlooked is the later application of the theory to contemporary events by Pareto in two subsequent works, *Piante e Tiere* (1920) and *La Transformazione delle Democrazia* (1921).27 Whether or not the application of the theory in these two books represented a valid “test” for empirical verification is another matter. Pareto’s “tests” were qualitative and interpretative, not quantitative. In spite of Pareto’s assertions, the impugnation of his theory to contemporary events did not constitute an empirical verification. Instead it provided an interpretation of current events within the framework of his theory.

Pareto’s insistence that he was adopting the norm of verification in order to establish the “scientific” basis of his theory did him more harm than good. This third stage was the most crucial for him and the most dubious for the reader. It invited a deserved rejection of his work on his own grounds. On the other hand, not only was Pareto too demanding on himself, but so were his critics. Because of its interpretive nature, Pareto’s theory of history (or social science) should be viewed more appropriately as a doctrine—a body of teachings offered to others as true and practical—and not in science in the sense that the term was used by Pareto. When viewed in this light it falls in the same category as Adam Smith’s *Wealth of Nations* or Marx’s *Capital*, their acceptance or rejection not having been the consequence of empirical verification. If we are to explain the checked history of Pareto’s sociology, then we must look elsewhere, not solely in the realm of science.28

### The Methodological Significance of Pareto’s Residues

Pareto’s residues are general in two senses. The first, which has already been mentioned, is that they are not time dependent and therefore serve as the “constants” upon which to construct a general theory of history or social science. Secondly they serve the central role in his construction of a unified social science. The latter deserves further discussion.

Recall Pareto’s argument that because of interdependence of nature and social phenomena, progress in the social sciences required a synthesis of the theories of the individual sciences. In fact, such a synthesis does not occur in the Trattato. Each social science possesses its own traditions and orientations which often render its theories incompatible with those of other sciences. Synthesis, then, is not a simple matter of “grafting” the theories of the specialized social sciences together to form one Social Science. Pareto encountered this problem. In order to overcome the problem of the basic incompatibility of the theories of the individual sciences, it is necessary to abstract from the individual sciences and to proceed to a higher level of generalization. This level of generality is achieved, in Pareto’s case, through the theory of residues.

The theory of residues serves a unifying function by which all social actions—economic, political, religious, etc.—are special cases of the more general theory. For example, Pareto’s theory of the Ss and Rs (spectators and rentiers) distinguishes between two personality types (class I and II, respectively) reflected in two functional economic classes, each having different propensities to consume and save, and each having different interests in the political process. Pareto’s theory of residues was the key to a general theory of social science or a unified social science. What are the methodological consequences of a unified social science? On the one hand, as was the case with Pareto, there is little in the way of specific theories in the individual social sciences that are useful. For instance, there is little in the way of Pareto’s economic theories in the Trattato, to say nothing about the economic conception of rational behavior. On the other hand, the elements which together form a general theory of social science may appear inadequate or even simplistic from the point of view of a particular specialized discipline. This was the case with Pareto’s theory of residues when viewed from the perspective of psychology. What this suggests is that a unified social science is not a substitute for the individual social sciences, but a separate and distinct entity, with problems beyond the scope of the individual sciences.29 In this sense, Pareto’s work had more in common with Marx’s work, and that may be a more proper basis for comparison.

### Marx and Pareto

Pareto, following Marx, was the last of the “great systems” builders. Also as was the case with Marx, Pareto made no explicit distinction between his “sociology,” which represented a unified social science, and history. Therefore it might be worthwhile to compare their respective approaches to history.30

One of the salient features of Marx’s interpretation of history is the way in which it draws upon sociology, history, economics, and, to a lesser extent, philosophy. The essential unity of social life was stressed by Marx and the method of synthesis was the dialectic which stems from Hegel. Although Engels pointed out that the method emphasized the reciprocity between economic and all other factors, with the economic finally asserting itself, in reality, Marx’s interpretation of history reduces to a unicursal explanation—where production constitutes the determining element in history.31 Pareto recognized the deterministic nature of Marx’s scheme and countered by stressing the reciprocal relationship between ideological, political, economic and material factors. Hence Pareto’s theory was not deterministic in the sense of Marx’s theory.

Both Marx and Pareto made use of the labor theory of value. Marx believed that social life is subject to definite laws. Since laws, by definition, are invariant in time (or timeless) how can their use be consistent with Marxian dynamics? In Marx’s case laws are made relative to the mode of production, and their applicability is linked to specific historical circumstances. As circumstances change then new laws develop in conjunction with new “background conditions.” In other words, Marx’s conception of laws is relativistic rather than universal in time. The element in Marx’s theory which does not undergo change, an “unalterable” facet of human nature, is the nature of class conflict. Everything else—production, economic laws, institutions, ideas, ideologies, the composition of classes, etc.—changes over time. This is the central theme in Marx. The conflict among classes is the dynamic element in his dialectical process.

As we have seen, Pareto focuses on spatially and temporally universal “residues.” Pareto also stresses conflict, but he generalizes Marx’s conception of class conflict to conflict of personality types, particularly among the elite. The shortcoming of Marx’s emphasis on class conflict becomes clear in the light of Pareto’s approach. It is

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29. Indeed, the question which a unified social science wants to answer may or may not be the same as that of the individual specialized sciences. The answers are quite different, in any case. For instance, the problem of inflation today is not simply a matter of excess supply of money, as some monetarists would argue, but assuming they are correct, the question remains: what circumstances allow this condition to persist in spite of the general view that it is unsustainable? This is where a unified social science, such as Pareto’s offers some insights.


31. For a more detailed discussion of this controversial point, see *Ibid*. 
rather obvious that one must strain facts somewhat to fit Marx’s conceptions of proletarian and bourgeoisie (and capitalist) classes into modern capitalism. For Marx, capitalism was characterized by these class antagonisms. If the definitions of classes are altered then it must be admitted that capitalism (in the Marxist sense) has undergone significant transformation. This would be inconsistent with Marx’s conception of the dialectic process—i.e., the fall of capitalism resulting from conflict between these classes.

Finally, and what is perhaps most significant, Marx’s theory of history becomes a special case of Pareto’s theory of history. Just as Pareto generalized Walras’s theory of general equilibrium, he took Marx’s theory of history together with its relativistic laws and universal conception of class conflict and generalized it to an interdependent social system where “residues” are the universal constants through which all other historical social phenomena are made intelligible.

A general theory of history or society, such as Pareto’s (and Marx’s) eliminates the distinction between the past and present. One can focus on change over time as concerns a particular nation or state, or focus on the differential conditions of nations and states in space, holding time constant. There is no logical difference between history and social science, only the perspectives are different. Indeed, in Pareto’s schema both terms are used interchangeably depending on his perspective.

Unlike Marx the prophet, Pareto was unwilling to speculate on what the successor to modern capitalism would be, or even suggest whether or not it would represent a better world. On the other hand, he did provide some insights as to why some countries experience economic growth and general prosperity and others do not, why institutions typical of modern industrial states could be expected to wither when transplanted to other less-developed nations, why the brutality of governments against peoples (in spite of the slogans of such governments) continues in agrarian societies, why population growth rate decline has occurred in industrial countries and why population explosions continue in “less developed” countries (not due to the “enlightenment” of the former and the “ignorance” of the latter as often implied), why inflation is a world-wide phenomenon among industrial countries where price stability was characterized two decades ago, etc. 32

Conclusion

Although Pareto’s Trattato is of historical interest by now, it does not follow that his theories are dated in any “objective” sense. Parts were accepted, others rejected and the whole more or less forgotten, but the selection process reflected the particular interests of readers in the various social sciences, rather than one deriving from positive empirical science. This circumstance applies not only to the Trattato, but to much of what constitutes the social sciences. For example, much of economic theory (particularly microeconomy) has not been “tested” empirically in any objective sense, but became accepted as doctrine.

I have argued that the Trattato should be viewed as doctrine, not positive empirical science, not to accord to it some inferior status, but in recognition of the myth of positivism when applied to the social sciences. The tendency to equate science with verification, disconfirmation, or falsification is a reflection of the influence of positivism on social thought—a philosophy which has been preached much and practiced little, regarding theory selection. 33

How then is that Trattato, to be judged, if not according to the canons of positive empirical science? The answer is, simply, according to what insights it provides about concrete reality which are not available through the individual social sciences. Although I have touched upon some of these insights, a thorough reexamination along the lines suggested would involve a major work. I only call attention to the matter of the current relevance of the Trattato because of the prevailing view in the social sciences that what is dated must be invalid by presumption, thus closing the door to any further inquiry, except by antiquarians.

Aside from the matter of relevance, which is beyond the scope of this paper, there are important methodological issues of current interest involved in Pareto’s approach to social science. To begin, although most social scientists are aware of the interdependence of social phenomena today, we live in an age of increasing specialization within and among various disciplines. We are witnessing a rapidly increasing specialized literature which is inaccessible to fewer and fewer readers. Indeed, we have passed the point where social scientists are able to absorb the literature in their own discipline, to say nothing of the literature in other disciplines. History, too, is no exception. In such an environment it would appear that a synthesis of the theories of the individual social sciences is beyond any human capability. This realization has been a major obstacle in the direction of one Social Science.

The above circumstance points to the methodological significance of Pareto’s approach to a unified social science. Pareto demonstrated that in order for the theories of the social sciences to be less time dependent they had to rely on historical research for the raw materials they needed, rather than the myopic contemporary perspectives of theorists which most often reflect cultural influence, with all that implies. In such a current environment Pareto’s Trattato and his approach to social science take on a new relevance.