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VILFREDO PARETO*

By LUIGI AMOROSO

THE MARQUIS VILFREDO PARETO, was born July 15, 1848 at Paris, where his father, Raffaele Pareto, an old Genoese patrician, and a partisan of Mazzini, was living in voluntary exile. He spent the earlier years of his life in France, but he carried on all of his studies in Italy, where he returned in 1858, receiving his doctor's degree in engineering in 1869 from the Polytechnic Institute of Torino. He practiced his profession for about twenty years and was manager of the Iron Works of San Giovanni Valdarno and later general manager of the Italian Iron Works. A man of the world, he frequented, during that period, high society of Florence and, in particular, the salon of Signora Emilia (Peruzzi), for whom, as well as for her husband Ubaldino, he always retained a deep affection. The nature of his activities naturally brought him face to face with the fundamental problems of political economy and particularly with that of protective tariffs. As an industrial manager, he did not limit himself to the consideration of his own individual case, but boldly entered the field as the paladin of the doctrine of free trade, in the name of which he attacked the protectionist policy of the time, denouncing its spiritual poverty and its servility to private interests. Later, in the maturity of his genius, in the quiet of Céligny, he abjured his former writings of polemic character, not because his judgment on men and things had changed, but because his theoretic attitude had changed, and wider was the angle from which he judged facts.

He was still living in Florence, when the reading of *Elementi di Economia Pura* by Maffeo Pantaleoni attracted him to abstract speculation. It was at first a complementary occupation of his life: then it became by degrees ever more absorbing, until it caused him to give up all other activity. From 1890 to 1905 he contributed assiduously to the *Giornale degli Economisti* and gave a rigorous scientific foundation to the theories of mathematical economics, which had already been introduced into the science by Cournot, Jevons, and Walras and formed later his general theory of economic equilibrium. He accepted the offer of the Canton of Vaud, Switzerland, and became in 1893 the successor of Walras in the chair of Political Economy at the University of Lausanne.

* Based on an article by the author in *Enciclopedia Italiana*, Vol. xxvi, p. 326.

Giving up teaching in 1906, he retired to Céligny in the Canton of Geneva, where, in the quiet of "Villa Angora," he lived the last period of his life, entirely devoted to study. This was the most fruitful period of his scientific activity, during which his fundamental works were published: the *Manuale di Economia Politica* and the *Trattato di Sociología*. He still continued to follow the economic and political changes of the time, and study and meditation brought him gradually to a spiritual attitude, which was antithetical to the one he held at the beginning, so that the old liberal who at first tended to radicalism, if not to socialism, was gradually transformed into the most profound and vigorous critic of socialism and of democracy.

The fundamental qualities in the mental formation of Pareto are mathematical knowledge and humanistic culture. Pareto, an engineer, in addition to Italian, wrote French in a literary manner, read fluently English, Latin, and Greek. He had translated the Greek Anthology for the mere pleasure of doing a linguistic exercise and in his youth had even attempted a comparative analysis of the language of Saint Paul and the Attic dialect. The thoroughness of his culture in this field is one of the most graceful charms of his works, where poets, prose writers, philosophers, metaphysicians, historians, all the classics of Greek, Latin, Italian, French, and English literature are garnered to confirm or to refute this or that conclusion which seemed to follow from the examination of statistics or from the discussion of theories.

Born of a French mother, he loved France, not only from filial affection, but because his thoroughly Latin genius attracted him to France. He was grateful to Switzerland which gave him hospitality, but he was always, and above all, Italian and he loved Italy with infinite tenderness. In his adopted land he preserved his Italian nationality, just as his father, the Marquis Raffaele, had preserved his in the land of exile. And if he considered it proper that the works composed during the period he was teaching at Lausanne, and which reproduced the courses given in that University, should appear in the language of the young men for whom they were destined, he returned—just as soon as he was free from the duties of official teaching—to the language of his father. It is symptomatic to recall, in this connection, that the date of his retirement from his teaching position, precedes by one year that of the publication of the *Manuale*.

The Governments of democratic Italy, before and after the war, paid no attention to him. The Fascist Government, in the very first months of its installation, made him Senator of the Kingdom, together with his great friend and contemporary, Maffeo Pantaleoni. The Fascist Government also asked him to be the delegate of Italy to the League of Nations at Geneva on the question of disarmament. "It is to be re-

gretted that the state of his health did not permit him to accept,"—so writes Bousquet, one of his biographers,—"for the world would have witnessed then a spectacle such as it had not been offered since the appearance of Bismark at the Bundestag at Frankfort."

Pareto died March 2, 1923 in the full luster of his genius and his remains repose in the little cemetery of Céligny.

The principal works of Pareto are, in chronological order, as follows: *Cours d'Économie Politique*, Lausanne, F. Rouge, 1896–97; *Systèmes socialistes*, Paris, Giard et Brière, 1902; second edition by the same publisher, 1926; *Manuale di Economia Politica*, Milano, Società Editrice Libraria, 1906; French translation, Giard et Brière, 1909; reprint of the French edition, 1927 (the French edition differs from the Italian in the Mathematical Appendix); *Trattato di Sociología generale*, Firenze, Barbera, 1916; second edition 1923; French translation, published by Payot 1917–19; English translation, *The Mind and Society*, New York, Harcourt, Brace & Co., 1935; *Fatti e teorie*, Firenze, Vallecchi, 1920; *Trasformazioni della democrazia*, Milano, Corbaccio, 1921.

The *Cours* serves as an introduction to the *Manuale:* the *Systèmes* prepare and the last two small works complete the *Trattato di Sociología.*

1. THE CURVE OF INCOMES

Pareto's mathematical skill appears first of all in the *Cours*, where is given the equation of the curve of incomes, which is, among all researches of inductive economics on the basis of statistics, the most elegant, if not indeed the most fecund.

This equation is $N = Ax^m$, where N represents the number of persons who have an income higher than x, while A and m are two constants, the first of which measures the amount of the total wealth, and the second, its distribution. The parameter m is almost a constant and in this invariability from country to country and from epoch to epoch, which later researches have confirmed, approximately, is the deep significance of Pareto's discovery. Wherefore the equation is not a mere statistical interpolation, but an instrument which allows us to penetrate deeply into the mechanism of the distribution of wealth.

2. ECONOMIC EQUILIBRIUM

Even more than in statistics, however, Pareto's mathematical skill shows its vigor in the construction of the general theory of economic equilibrium which is contained in the *Manuale* and still more in the French translation (*Manuel d'Économie Politique*), in which the mathematical appendix has been completely reworked.

Here is its fundamental concept.

Let us suppose that a certain number of independent parameters $q_1, q_2, \cdots, q_n$ represent the configuration of a certain system, and that a certain function $R(q_1, q_2, \cdots, q_n)$ has the following property: q_r being a generic variable, if to a positive increase Δq_r there corresponds for R a positive increase ΔR, the system moves in the direction in which all the q_r are positive; if, on the other hand, the increase ΔR corresponding to Δq_r is negative, the system moves in the direction in which all the q_r are negative; and, finally, if the increase ΔR corresponding to Δq_r is zero, the system does not move at all.

The configuration of equilibrium will be obtained, then, by writing the system of equations

$$\frac{\partial R}{\partial q_1} = 0, \frac{\partial R}{\partial q_2} = 0, \cdots, \frac{\partial R}{\partial q_n} = 0.$$

A function R which has this property is called an *index function.*

These ideas are extremely general. They apply equally well to mechanical systems and to economic systems.

They have a still more general range. The form of the theories does not change, even if the meaning of the function R is changed; the essential is that it be an index of the direction in which it is anticipated that the system will move. If an index function of altruism could be found, substituting it for R, we should have the mathematical theory of altruism.

The simplest case is that of a single producer, the index function representing then the net profit of the production. By calling this profit F and the quantity sold q, F is a function of q and represents an index function in the sense indicated above. The configuration of equilibrium is then determined by the equation

$$\frac{dF}{dq} = 0,$$

which indicates that the producer aims at the maximum gain in money.

3. THE INDEX FUNCTION OF OPHELIMITY

The treatment of the case of a single consumer is equally simple, *if it is admitted that one can measure pleasure.* The quantity which represents such a measure in function of consumption is then the index function of the system.

The function which measures pleasure was called *ophelimity* and from the study of it pure economics was born with the works of Gossen, Jevons, Walras, Marshall, Edgeworth, Pantaleoni, and Fisher. The quantities that measure what at the beginning was called *final degree of utility, scarcity,* were nothing but the partial derivatives of ophelim-

ity. The determination of the position of economic equilibrium in the problems of exchange had been reduced, by the authors whom we have cited and by Pareto in the *Cours*, to the search for the relative maxima of the function of ophelimity.

In the *Manuale* it is recognized that it is not correct to speak of a measure of pleasure and hence not of the function of ophelimity; it is recognized, moreover, that ophelimity is not an essential idea. To construct the general theory of economic equilibrium it is sufficient to have functions (indices of ophelimity) which will increase when the pleasure increases and which will decrease when the pleasure diminishes. Finally in the *Manuale* the notion of pleasure is dropped entirely. Instead, we can assume a function which will serve to indicate the direction in which the movement is foreseen to happen.

Here is an analogy with the evolution of the concepts of *Rational Mechanics*. In Statics one began by considering a system of points and a system of forces applied to them. Supposing for simplicity the system free of constraints, the conditions of equilibrium would be expressed by saying that the resultant of all the forces applied should be zero. It was at once recognized that these same conditions were expressed more simply by saying that the positions of equilibrium corresponded to the maxima and minima of the potential function. Finally it was seen that the concept of forces could be dispensed with entirely. The position of equilibrium was determined just as soon as a function (index) was known, which, with the sign of its derivatives, would indicate the direction of the movement.

The concept of applied forces corresponds in Economics to the concept of final degree of utility. The potential function corresponds to the ophelimity.

4. EQUILIBRIUM AS A CONTRAST BETWEEN TASTES AND OBSTACLES

The actions developed by forces are fettered by *obstacles*.

For every individual the tastes of the others with whom he contracts are obstacles. If the quantity of goods must be divided among several persons, the fact that the quantity is fixed is decidedly an obstacle; if the good to be divided is produced, the fact that it can be obtained only by using other wares still constitutes an obstacle; likewise the fact that the good is not available in the place and at the time it is needed constitutes another obstacle. In general the meaning of obstacles is that economic goods are limited; that until violence and fraud, theft and donation are excluded, a thing cannot be had except by giving in exchange for it one of equal value pro tempore; that every product is the result of a certain combination of the factors of production in harmony with the laws of technics, as they are known pro tempore; that the

legal order and the economic organization fetter individual actions; and so on.

Exclusive of the introductory and complementary parts, the *Manuale* consists essentially of three chapters: in the first, a synthetic study is made of tastes, that is, the forces which impel to action; in the second, of the obstacles, that is, the constraints which are opposed to the tastes; in the third, are studied the configurations of equilibrium which arise from the contrast of those forces and of these constraints.

And what about production and exchange, consumption and distribution? There does not exist in real life a distinction in things corresponding to this distinction of words. There does not exist a problem of production, as distinct from a problem of distribution and vice versa, but all economic problems are included in the general conditions of equilibrium.

5. THE CRUX OF PARETO'S SYSTEM

Classical economics rested and still rests in the main on the assumption—implicit, even if not always explicit—that economic equilibrium represents a typical configuration around which the real configuration oscillates now in one direction and now in another; or, in short, that equilibrium is *an idea*, in the Platonic sense, of which reality may offer the more or less deformed image. Such a conception, forming the substratum of the antithesis between normal value and current value, as it was already set forth in *The Wealth of Nations* of Adam Smith, inspiring the greater part of the economic literature of the ~~eighteenth~~ 19th century, and constituting even today the fundamental theme of contemporary theoretical investigations, is not surmounted in the *Manuale*. But Pareto noted even then the theoretical deficiency of the doctrine of equilibrium, in so far as the dynamic aspect is the essential, not the contingent of economic reality, and this latter is not polarized around an ideal configuration, but moves incessantly in an eternal change, under the action of external and internal forces, which bind the present to the past, the future to the present. The external forces—the only ones that are explicitly considered in the *Manuale*—represent applied forces, the tastes and the obstacles in the model of Pareto.

It is at this point that the crux of Pareto's system becomes apparent. The internal forces of the economic system are not susceptible of a theoretical representation as simple, elegant, and universal as is the case for the applied forces. They are not only, as for the material macrocosmic systems, forces of conservation, by which—to express it elegantly—the dead city dominates *through inertia* the living city; they are also directive forces or forces of impulsion, through which the living city *forms or attempts to form* the city of the future. The internal forces, therefore, are History, they are even Ethics and Politics, something

powerful, but vague and indistinct, which is not susceptible of mathematical representation; an expression of the freedom of the will, which does not allow itself to be enclosed in the meshes of a mechanical representation, and, because it is mechanical, determinist.

Pareto succeeds in his purpose, basing his theory on the fact that the movement of economic phenomena cannot be separated from that of political and social phenomena. Economic dynamics merges into Politics, or, to use Pareto's term, into Sociology.

6. THE INSTINCT OF COMBINATIONS

The structure of Pareto's Sociology rests on the following foundation: In human phenomena—and consequently in the theories devised to explain these phenomena—there is always a constant element and a variable element. The first is the manifestation of instincts, feelings, appetites, etc.; the second is constituted by logical and illogical reasonings which express the need for justifying, in a rational way, what has no rational origin. Thus, for example, in the doctrines which proclaim the existence of a moral law, the constant element is constituted by the postulation of certain norms of life; the variable element is constituted by the appeal to supernatural or metaphysical entities, in the name of which the norm is imposed.

Pareto calls the constant element *residue;* the variable element, *derivation* or *derivative.*

How are the residues classified? The world, the devil, and the flesh are, according to the Catholic doctrine, the obstacles in the way of eternal salvation. The corresponding categories of Pareto are: the residue of sociality, the residue of integrity, and the sexual residue. To these must be added then the need of manifesting one's own feelings by external acts, the instinct of combinations, and the persistence of the aggregates. So that, actually the classes of Pareto's residues are six.

Of special importance in Pareto's system are the instinct of combinations and the persistence of the aggregates.

The instinct of combinations—according to Pareto—is characteristic of the human species. With a box and a little ball a cat plays a whole day and has not an idea. The baby immediately puts the ball into the box. Behold—says Pareto—the instinct of combinations. This was and is a powerful promoter of civil progress. A very great number of phenomena arise from the inclinations to combine certain things.The learned man combines them according to certain norms, certain opinions, certain hypotheses; and we have *scientific combination* which gives rise to discovery and invention; the multitude make combinations guided by analogies, in most cases fantastic, puerile, and casual; and thus we have *vulgar combination.*

Vulgar combination is most of the time sterile in the sense that it has no other aim than that of satisfying the instinct of the one who makes it; thus it is in the game of lotto, in the magic arts, in the processes of sorcery. At other times, however, it borders on the scientific combination and gives rise to discoveries. Chemistry was born as a consequence of the efforts in search of the philosophers' stone; medicine in an analogous way. Any one who reads the *Natural History* of Pliny is struck by the infinite number of combinations attempted to cure diseases. So, the domestication of animals is the fruit of a process, centuries old, which had its origin in a vulgar combination, that is, a combination which had no other aim but that of satisfying an instinct. The same can be said of a thousand other discoveries, which are milestones in the history of human civilization, such, for example, as fire, boxes, metals, etc.

7. THE PERSISTENCE OF THE AGGREGATES

The persistence of the aggregates represents—according to Pareto—the residue, thanks to which certain combinations, once formed, become *stable* and a firm possession of individuals and of human society. They constitute a sort of aggregate of parts closely joined as in a single body, which finally acquires a personality similar to that of other real beings. The instinct which is opposed to the separation of these parts is precisely the persistence of the aggregates.

The chief way in which the persistence of aggregates shows itself is in the persistence of the relations of one man with other men and places. From it come *the feelings* (*sentiments*), *so-called, of the family, of property, of patriotism, of love of one's own language, of one's own religion, of the fields*, etc.; usually, there are added derivations and logical explanations which perhaps conceal the residue.

Living in a given milieu impresses on the mind certain concepts, certain modes of thinking and of acting, certain prejudices, certain beliefs, which are antithetical to those that are formed in other environments, and which by this antithesis are strengthened, persist, and acquire an objective existence. This is a general fact which gives rise to the distinction in social classes, in sects, in parties, with the innumerable forms in which the phenomenon is manifested concretely.

Also the cult of the dead is an expression of the persistence of the aggregates; a further proof of this is the fact that the materialists honor their dead just as the faithful believers do. The concept of the survival of the one who has died substantially rests on the feeling, most powerful in us, of the unity of a man in the flight of years. In reality the corporeal part of a man changes and the psychic part too; neither materially nor morally is an old man identical with himself when he was a

baby; still we admit that there is in them a unity which remains. He who is not frightened with words calls this unity *soul.* He who is frightened at them rejects the words, but he cannot reject the concept, because without it every man would be declared irresponsible for all that he has done in the past.

8. THE DEMOCRATIC OLYMPUS

Once constituted, the aggregate becomes something different from the simple superposition of the elements which constitute it. As the flock is something different from the mere sum of the sheep of which it is composed, so the aggregate becomes an entity in itself, and gives rise to an abstraction which persists, after having acquired individuality and a life of its own. In the same way was born the idea of the sacred rivers, for example, the German Rhine; the same is the origin of the goddess Annona, in whom the Romans personified the provisioning of the city. Similar is the origin of the apotheosis of the emperors; the emperor, whoever he was, personified the Empire, the regular administration, justice, the Roman peace; and those sentiments in no wise vanished because a man died and another took his place; the permanence of that aggregate was the fact; the apotheosis, one of the forms in which it was manifested.

Analogously the democratic nineteenth century personified "Liberty," who is, however, only one of the divinities that dwell in the Olympus of the religion of democracy. This, like all religions, has a theology in which the history of humanity is presented as the history of the conflict between a principle of evil, embodied in a cohort of divinities such as *Superstitition, Private Property, Capitalism,* etc., and a principle of good, embodied in another cohort of divinities, such as *Science, Democracy, Humanity, Liberty, Truth, Justice.* The ones and the others are true and proper *supernatural entities,* who, like Apollo and Venus, Minerva and Juno, descend to the battlefield for Troy and against Troy. The victory of the principle of good over the principle of evil constitutes *Progress.*

As in the case of the gods of Homer—continues Pareto—so also with the divinities of the democratic Olympus, their credit is now raised and now lowered. In the period which immediately preceded the French Revolution *Private Property* was in the front rank, on a level with *Superstition,* and Rousseau denounced it with vehement invectives. At the time of the revolution *Superstition* again reigned with many a follower such as kings, nobles, priests. Afterwards people turned to other theoretical speculations, and *Capitalism* succeeded *Private Property,* as Jove followed Saturn. *Blessed he who possesses the key of Knowledge!* Every phenomenon, present and future, is explained with

the magic word of Capitalism. It alone is the cause of misery, of ignorance, of bad customs, of thefts, of assassinations, of wars. It is no use to cite the example of savage people, who drag out their existence in perpetual war, for faith commands to believe that, without Capitalism, there would not be any wars. If there are the poor, the ignorant, the lazy, the wicked, the alcoholic, the insane, the dissolute, the thieves, the assassins, the conquerors, the blame is to be laid only on Capitalism. The reasoning with which this is proven is the usual one: *post hoc ergo propter hoc.* Society is *capitalistic,* hence its evils have their origin in *Capitalism.* Other reasons are added which in substance reduce themselves to asserting that, if men had of everything unto satiety, they would not commit evil acts or crimes in order to procure it; and since it is an article of faith that only *Capitalism* prevents men from having everything until satiety, it is proven that this entity (the capitalistic concept) is the cause of every evil act.

All this is not peculiar to the religion of democracy. All religions have a theology and all have an Olympus, and all fight and ought to fight to conquer the *universality of minds* and the unity of faith; to extirpate—with force—the disintegrating heresies. Thus indeed it was with the religion of democracy, which in the period of its splendor showed all the characteristics of all the other religions, intolerance being in the front rank.

9. THE SECULAR TREND OF HUMAN SOCIETY

Going on to study how the forces which have been considered are combined to determine social equilibrium, Pareto demonstrates that a first schema of social dynamics, with reference to secular trends, can be obtained by taking into account these two circumstances, namely: the proportion in which the residues of the instinct of combinations and of the persistence of the aggregates are present in the dominating class and in the dominated class; and the velocity of circulation of the elite, this being formed by individuals who occupy an eminent position politically, economically, in art, in moral and religious activity, in general in any one of the various forms of human activity. The velocity determines the degree of the so-called social flexibility.

In Pareto's mind, a society would be able to prosper when the circulation should not be too much facilitated, in order to assure stability; nor too much obstructed, in order to permit a certain degree of social exchange. He shows that, given a certain intermediate velocity between the two extreme limits, and a certain intermediate proportion of the two fundamental residues in the dominating class and in the dominated class, there must be a certain combination of these conditions which is the most favorable for assuring the prosperity of the State.

In general, in the governing class the residues of the instinct of combination ought to prevail over the residues of the persistence of the aggregates; the contrary should hold for the governed class; but in the long run, the men in whom prevail the residues of the instinct of combinations are weakened and the social circulation must, therefore, consent for new men to assume the position of the first.

In substance, a State declines, either because there is a lack of equilibrium between the instinct of combinations and the persistence of the aggregates, or because the circulation is too much accelerated or too much retarded. Sparta fell from the prevalence of the residue of the persistence of the aggregates; Athens, on the contrary, fell from the prevalence of the residue of the instinct of combinations.

If Athens, in her foreign policy, had to limit herself to the defense, while Macedonia could carry out a policy of expansion and conquest, the reason, according to Pareto, must be that Macedonia, much more than Greece, knew how to adjust herself to the proportion between the two residues, which better than the others secure the maximum of stability. Rome arrived still closer to this ideal position, and that explains the universal success of her foreign policy. The contrast between the two residues can explain all the Roman history. The last years of the Republic—for example—are characterized by the prevalence, in the governing class, of the residue of combinations; the revolutions of Sulla, of Cataline, of Caesar must indicate that the proportions which had been thus formed were not favorable. The governed class triumphed with Augustus and hence, with the Empire, there begins in Rome a period in which the residue of the persistence of aggregates prevailed: such a prevalence assures at the beginning a period of prosperity, but it is at the same time the first origin of that social crystallization which leads later to the fall of the Empire.

The same cause—social rigidity—determines, according to Pareto, the fall of Venice. He finds that, at a certain moment in Venetian history, it seemed as if there were about to be instigated a certain circulation of the elite which would have secured the necessary social exchange. The condemnation of Marin Faliero and the subsequent exclusiveness of the dominant class were a germ which caused that this state, although it still had so many fortunate combinations to prosper for a long time, had a shorter life than Sparta, Athens, and Rome had had.

10. ECONOMIC AND SOCIAL CYCLES

The consideration of the proportion of the two fundamental residues and of social flexibility is sufficient to give an idea of the movement of human societies in the secular development, but it becomes inadequate when the field of vision is restricted in time, to embrace the events of

one or few generations. To gain in depth what is lost in extent, it is then necessary to enlarge the frame of the theoretical schema, adding to the residues and to the social flexibility the consideration of two other elements: the *derivations*, that is, the reasonings by which men seek to give a logical system to their life and to their beliefs; and the *interests*, which constitute the impulse of daily acts. Therefore, in more restricted limits of time, the movement appears to Pareto like the result of the actions and reactions of these four groups of factors:

(A) the residues,
(B) the derivations,
(C) the interests,
(D) the social flexibility.

The group (A) works powerfully on (B), (C), and (D), and this has been recognized by all who have proclaimed that *Ethics* is the foundation of the social order. Usages and customs, legal order, political and economic organization, literature, art, morality, religion, reflect powerfully the currents induced by this group. On the other hand, the currents that are induced by the group (B) on (A), on (C), on (D), are rather less potent and that explains the contempt which men of action have always displayed for *ideologies*—liberty, equality, fraternity, natural law, law of nations, etc.—and the facility with which a new ideology may sweep away the ancient one. It is, however, necessary, to guard against undervaluing, too much, the weight of such reactions. It is true that Christianity does not owe its victory to the Doctors nor the French revolution to the Philosophers, but it is true too that the theoretical elaborations of the Doctors of the fourth century and those of the Philosophers of the eighteenth were of great importance for re-enforcing, exalting, and purifying the nascent movement.

The contempt for ideologies created among the theorists of socialism the vogue of *historical materialism*, which in the structure of Pareto is systematized as the doctrine which formulates the reactions of the group (C) on (A), (B), and (D). Certainly the interests, as the expression of the need for daily bread, are powerful factors which act upon feelings, upon ideas, upon the social organization, and the currents which they induce are, as a rule, stronger than those that come from the brain, but not stronger than those that come from the heart. The error of historical materialism is not only in having substituted the part for the whole, but also in having asserted a *universal* predominance, when on the other hand, to the predominance of Economics over Logic ought to have been added its subordination to Ethics. It is evident that the word *Logic* must here be understood not in the Aristotelian and Baconian sense, as the theory of the syllogism and experi-

mental induction, but in Pareto's meaning of the theory of derivations, that is, of the logical and illogical reasoning with which the human species gives, or thinks it gives, a rational order to its own life.

Ethics, Logic, and Economics formulate theoretically, therefore, the actions which the elements, indicated above as (A), (B), and (C), exercise, the ones on the others and all of them on (D). The reactions which, vice versa, (D) induces on (A), (B), and (C) are those that happen on the inside of the social body, and act powerfully in modifying feelings, ideas, and economic organization. The accumulation of elements of elite in the lower strata of society, and of degenerate elements in the upper strata, is the eternal cause of all the revolutions. Aristotle, Machiavelli, and Vico are the classical authors who have traced the fundamental lines of these reactions; to the body of doctrine which reduces them to theory, the first of them, i.e., Aristotle, gave the name of Politics.

Concretely, the single actions and reactions are compounded and interfere in a thousand ways and from their contrast arises the social movement. Analyzing the single interferences, Pareto deduces the oscillatory character of this movement. The single oscillations constitute *the economic and social cycles* and form the warp on which are interwoven the vicissitudes of the history of human society.

11. SPECULATORS AND RENTIERS

Let us pause a moment on the reactions induced by group (C) and let us fix our minds, for example, on industrial protection. Its most important effects are as follows: rise in the prices of goods of consumption, increase in industrial production, greater difficulties for the increase of agricultural production, shifting of wealth from the classes with fixed income to those of variable income, acceleration of the movement of circulation of wealth and more generally in the circulation of the elite.

The effect of the shifting of wealth is the most important. To the class (*with variable income*) which becomes rich belong the entrepreneurs, the stockholders of industrial and commercial companies, the owners of houses and lands—where speculation in building exists—the speculators on the stock exchange, the bankers, and all the persons who are dependent upon them as workmen, employees, notaries, lawyers, engineers, politicians, etc. On the other hand, to the class (*with fixed or almost fixed income*) which is impoverished belong mere possessors of savings, depositors in the banks or savings banks, the annuitants, the pensioners, the holders of State securities or bonds of corporations, the owners of houses and lands where speculation does not occur, and also the employees, the workmen, the farmers, who are dependent upon

those persons. Pareto indicates by S (speculators) those belonging to the first class and by R (rentiers, i.e., possessing an income or rent) those who belong to the second class. Industrial protection, which enriches S to the detriment of R, is extolled by the former and condemned by the latter. The former (S) think *the collective utility is in the increase* of industrial production; the latter (R) hold that it is on the contrary in the *reduction of the prices* of consumption goods. Both rest their assertions on metaphysical reasoning or on verbal proofs, or on other arguments which belong to the dialectics of faith. In reality, it is the motive of individual interests which acts instinctively in determining the judgment of both groups of people.

The opposition between S and R is manifested—Pareto continues—in every controversy of political economy. When it is considered not in an abstract way, *sub specie aeternitatis*, but concretely, that is, *in relation to a given situation of fact*, every choice, in the economic field, involves, explicitly or implicitly, the following dilemma: is it advisable to aim for the stability of economic relations, or to favor, stimulate, encourage the creation of new situations? The S, adventurous and unscrupulous people, always decide for the second alternative, sure as they are that with genius and astuteness they will be able to turn the novelty to their own advantage. An opposite choice is made by the R, honest men and timid in the matter of economic initiative, in whom gifts of character predominate over those of technical and financial ingenuity, and who know by experience that, however things go, they will end by paying the expenses of every innovation.

In the struggle, as long as it remains on economic ground and is therefore fought with shrewdness, the S, who are rather more ready on the offense than the R are on the defense, usually win. But the R, in their turn, become predominant when they carry the battle to another terrain, to the terrain of politics, for example, and substitute for the weapon of shrewdness that of force.

In various forms, this economic struggle may appear in political garb, for example, as conflict between the divine right of kings and the right of the people, which is then, in substance, the opposition between the interests of the present generation and those of the future generation. *The interest of S many times*, not always however, *is contary to that of the future generation*, in so far as the classes which are easily enriched by the success of ingenious economic combinations rarely have the virtue of saving, and, earning liberally, they tend to consume even more liberally. On the other hand, the interest of the future generation is in the production of new capital, and this—*all other conditions being unchanged*—is the more intense, the greater the saving. It can happen, however, that the yield of the economic operations of S will

be large enough to permit an ample increase in consumption, without giving rise to a reduction in saving. In fact, it did so happen during the nineteenth century through the enormous increase of production brought in by great industry. But history shows that such a fortunate coincidence is exceptional and transitory: in general, *the expansion of consumption occurs to the detriment of saving.* In the very tendency of the increase of production and expansion of consumption to determine a decrease of saving, while—on the other hand—saving is the condition *sine qua non* for giving life to ingenious financial combinations, Pareto sees the maximum of internal *contrasts* which brings with it the so-called *industrial cycle.*

12. THE FREEDOM OF THE PRESS

Pareto analyzes at length the characteristics presented by the daily press in the so-called regime of *freedom of the press.*

He begins by observing that it would be manifestly excessive to assert that all the news and all the articles of the newspapers are always inspired in the defense of an interest; the respect for sentiments that are dominant or even merely widespread, plays here an important part, nay, a very important part. Especially the party press has an intuition, that is, a peculiar feeling for the life of the country; and in this it is inspired each day. This does not obviate, in many other cases, especially in the so-called journalistic campaigns, the prevalence of the motive of the interest of the one who owns the paper, or of the one who pays for it, or of the one who has any power at all over it. The thing is not always manifest and he who is a novice at journalistic skirmishing does not ordinarily discover the location of the bow from which the arrow was shot. When, about the middle of the past century, in the struggles which preceded, accompanied, and followed the enterprise of cutting through the isthmus of Suez, the English press attacked de Lesseps furiously, the ingenuous reader would never have thought that those fiery articles were inspired by de Lesseps himself. And yet, many years afterwards, he himself related and explained the fact, saying that the greater part of his expenses for propaganda in England were made up of sums paid to have himself attacked. The attacks—he explained to the Minister Olivier, who was naïvely astonished at it—are the means of attracting attention. They are forgotten at once and there remains only the memory of the name and of the thing attacked.

In the regime of the freedom of the press—Pareto continues—there are opposition papers paid by the governments; and socialist papers paid by high finance; and nationalistic papers in which a foreign Government, or even international Free Masonry, has a finger. However absurd the matter may seem, it is a fact; and it is explained by say-

ing that it may be sufficient for a Government or any power whatsoever for a paper not to touch certain keys at a certain moment, or for it to touch certain others; and when it touches them, to do so in a certain manner. Certain attacks, especially on account of the place whence they come, or on account of the manner in which they are conducted, are often more powerful than defense. Bismarck was a master of the art of buying the press in this way, at relatively small expense.

The strength of the newspapers is in the art of stirring up feelings, by using the reasonings which are proper to the dialectics of faith. Feelings must exist first, and that determines the limits of the power of the newspaper, which cannot go against them, but only make use of them for *its own purpose.* Provided it responds to a widespread feeling, any argumentation is good, whether it invokes a principle of authority, or makes an appeal to a metaphysical entity (idea) or even simply repeats verbal proofs. The sophism does not harm, it may even be useful; a simple demonstration is wanted which can be understood by all and be repeated indefinitely.

13. THE PARLIAMENTARY GAME

Like the daily press, the parliamentary game in a democratic regime is also the expression of private interests: in a more limited degree in the golden periods of parliamentarism, in a predominant degree in the periods of decadence.

In the period when Parliament represents truly a live and real force, the great debates which occur in the Chamber and the legislation resulting from them reflect above all the feelings which are disseminated in a large mass of the population and which are translated into a special intuition of moral life. Then the private interests are relegated to the second place. They do not, however, entirely disappear, as is shown by parliamentary inquiries, which occur in all epochs, but especially in the golden periods of parliamentary institutions, since, in these periods, the sense of responsibility of the men of politics is more awake to danger, and the reaction of public opinion more prompt. The inquiries show, now in a veiled way, now in all clearness, how, underneath the reasonings of the political men for pushing on this or that action, private interest is concealed.

When the parliamentary institutions are in the full vigor of their strength, the inquiries cut short the political career of the one who is blamed by them. In the periods of decadence, on the other hand, the case of a man severely censured by an inquiry returning to the ministry and becoming the master of the country is not rare. So, Pareto recalls the case of Rouvier, who, though implicated in France in the Panama scandal, could return to the Government. Thus, in England,

Lloyd George remained a Minister after the inquiry on the stock-exchange operations. And in Italy Giolitti, after the scandals of the "Banca Romana," came back as head of the Government and was, for more than a decade, the ruler of Parliament.

When parliamentary decadence is accentuated, the motive of private interest becomes the warp on which is woven all of parliamentary life. The Chamber is transformed into a new kind of *feudalism*, and the art of politics is wholly reduced to providing for the interests of the new lords (*elected*) and new vassals (*electors*). Parliamentary debate is the instrument to snare the favor of the public and divert its attention, and further still the weapon for simulating and defending, for striking and offending; all that with the consciousness or semiconsciousness that this brawl is, at bottom, something like a ceremony or a performance. All say that the speeches will not change a situation nor displace a single vote; still the speeches are made, and all orators and listeners feel, more or less consciously, that they are playing a part, like the actor in the theatre. These are words of Ciccotti, a former Italian deputy of the democratic party, and Pareto has made them his own.

14. ITALIAN POLITICS IN THE PERIOD IMMEDIATELY PRECEDING FASCISM

Returning to the distinction between *R* (*rentiers*) and *S* (*speculators*), let us recognize that in a regime of parliamentary decadence, the head of the Government is, in substance, like the head of the syndicate of *S*. He has the appearance of the power, of which they have the substance. This explains—Pareto continues—how for so many years a man like Depretis could be a master of the Italian Chamber. He was not the head of a victorious army—writes Pareto—he did not have the eloquence which stirs men, nor the authority that comes from great deeds, nor was he imposed by the Sovereign. Whence, then, came his great strength? There can be only one answer. He knew, in a masterful way, how to make use of feelings and of interests which were in the country; the protective tariff, the railway agreements, public works, the leases and banking disorders were the expression of this policy.

Crispi offered—according to Pareto—an interlude: a Government moving and acting according to a directive line of its own, in correspondence with its own intuition of the moral life of the country, and seeking to persevere in its way surmounting the obstacles which were interposed. But he did not have the skill to avail himself of the feelings existing in the country for putting into practice his own moral idea. He combated the socialists harshly. Nevertheless he was not able —as Mussolini later did—to disintegrate their party, to attract the masses to himself, to avail himself of the strong forces latent in them,

to transform these forces from elements of disintegration—such as they were—into elements of national cohesion. He did not succeed in uniting the *R* around himself, while the *S*, to whom he gave nothing to bite at, hated him. Moreover he had unfavorable conditions in the economic cycle which, during the time he held the Government, was moving towards a period of depression.

For Pareto, the contrast with his successor, Giolitti, is significant. No less than Depretis, Giolitti made himself the head of the syndicate of the "speculators," the protector of trusts, of monopolies, of public works, and, since the conditions of the economic cycle were favorable to him, he could make friends with the socialists, by subsidizing the co-operatives liberally, and satisfy the nationalists by making war in Libya. He was a master of the art of turning to account existing feelings. While he kept at bay the socialists and nationalists, he extended voting rights to frighten the bourgeoisie and become their protector, and, at the same time, to appear the paladin and the standard-bearer of the rights of the people. With the same idea he allowed strikes periodically to disturb the life of the country, but just as soon as he was aware that the measure was about to be heaped up and reaction was manifested in public opinion, he used repression energetically. He combated the clericals publicly and flattered them secretly. In short, there were no sentiments and interests in Italy of which he did not avail himself for his own end.

This man, however, never went beyond the aim of dragging out his political life from day to day. Never did Giolitti have an idea of his own to assert, never could he rise above the contingencies of the moment. While he gave the Ottoman Empire a serious shaking up with the Libyan war, he was not aware that he was preparing the Balkan war and, therefore, disturbing profoundly the equilibrium of Europe. He was not, therefore, preoccupied with preparing the military forces of the country, in view of future conflicts. Not only did he not increase military expenses, in order not to incur the opposition of the socialists, but he persisted—and bragged of it—in the policy of extending public works, of subsidizing the co-operatives, of broadening social legislation, all of which meant subsidies to the electoral masses. He made war and disguised its burdens, hiding the expenses of it among the folds of the accounts and by postponing the liquidation of them to the future. He covertly increased the public debt with the emission of long-term Treasury Bonds. All this was useful for the moment, because it pleased those who wanted war and those who were unwilling to bear the necessary consequences of it, but prepared the difficulties of the future.

When the problem of the European war, which involved the very life of the nation, and which could find no solution in the criterion of

life from day to day, was presented, he fell. He had a brief resurrection when, after the war was over, he blindly thought that its general problems were settled, and that he could return to the old methods and the old systems.

What happened later in Italy after his third fall was part of the historic cycle which takes its name from the Fascist revolution and constitutes the passion of our life. The Fascist revolution has been, at the same time, a revolution of men, a revolution of ideas, an overturning of pre-existent interests, and an overthrow of moral values. Its unity which wholly subsists in the midst of the variation of external circumstances offers a demonstration of the reactions of mutual dependence between the categories which Pareto has put as the basis of his theoretical system.

15. THE MYSTICS OF PARETO

The ancient Greek naturalists saw in Zeus the origin of all the phenomena of nature. Saint Augustine searched in the Sacred Writings for the proof of the existence of the antipodes. Galileo was the first to teach that Physics is to be conceived solely as the synthesis of facts. Pareto declares that he was the first to introduce the method of Galileo into Sociology.

He was mistaken. Spinoza, not to mention any other, had preceded him. The *Tractatus Politicus* of the great thinker of the seventeenth century opens with the declaration that the fault of the philosophers lies in considering human passions as vices into which men fall through their own fault: *Affectus quibus conflictamur, concipiunt philosophi veluti vitia, in quae homines sua culpa labuntur*, and herein lies the reason, because philosophers think they have attained the sum total of knowledge, when they have learned to dispense praise and blame. They conceive men not as they are in reality, but as they imagine them to be. *Homines namque non ut sint, sed ut eosdem esse vellent concipiunt*, whence it follows that they believe that they are making Ethics when they are making nothing but Satire; that they are making Politics when, instead, they are navigating in the realm of Chimera and of Utopia. To this point of view the great thinker opposes his own point of view. *Cum igitur ad politicam applicuerim . . . ut ea, quae ad hanc scientiam spectant, eadem animi libertate, qua res mathematicas solemus, inquirerem sedulo curavi*, which means: "while applying myself to politics, I have sought to bring to the study of it that same freedom of mind which is usual in the study of mathematics." And he continues: "I aimed not at deriding, not at pitying, not at detesting, but at understanding human actions; at considering the human passions, such as love, hate, envy, glory, pity, not as virtues or vices, but as a property

of human nature in the same way as heat is considered to be a property of bodies."

Hence: experimental method, founded solely on facts; freedom of mind on the part of the observer, as if he were examining facts of physical nature.

Thus the philosopher of the seventeenth century and the sociologist of the nineteenth agree in the double assertion that social science is to be treated according to an experimental method, based only on facts; and that, in the presence of these facts, the observer must preserve the same freedom of mind which the naturalist preserves while investigating the life of the ants and of the bees. An absurd position, because the facts, upon which that science (sociology) raises its theoretical structures, are internal (subjective) and not external (objective): they are those that history transmits and for this reason they are *mental formations* (concepts), which thought, that is, philosophy, produces, by interpreting, considering, and qualifying actions and events. Such an interpretation is always subjective and it always reflects—consciously or unconsciously—an ethics and a mystics.

And, in contrast with the methodological assertions on which Pareto's Sociology is said to rest, it really contains *an ethics and a mystics.* The greatness of the work, from the political aspect, is precisely in this transcendental character, by which the critique of democratic society ceases to be an abstract refutation of theoretical principles, as it had been in the *Systèmes Socialistes,* and becomes a real opposition of one faith to another. Concluding his theory of economic and social cycles —several years before the world war—Pareto had foreseen that the end of the plutocratic demagogic cycle was close at hand, and in the transformation of democracy he saluted the dawn of the new day. It is one of the ironies of life that Vilfredo Pareto, the denier of every creed, of every philosophy, is the artificer who, first and most valiantly, raises—on the ruins of the democratic dogma—the edifice of the new faith and of the new philosophy, anti-democratic, anti-humanitarian, anti-progressive, anti-evolutionary. For, by taking as a foundation the critique of the derivations, that is, of the logical and pseudological reasonings with which the socialist-democratic city justified its deterministic, laical, and international faith, he restored a theoretical value to religious and patriotic values, to the principles of individual responsibility and of the freedom of the will; the principles which the wisdom of the ages has taken as the foundation of all civil life. Such a position is the more worthy of note in that Pareto's education had been conducted on rationalistic and democratic bases, when rationalism and democracy, I should say more properly the rationalistic and democratic spirit, dominated consciences undisputedly. Before a spiritual

revolution was accomplished in the multitudes, it had been accomplished in him, without any definite design of his; I would almost say, in spite of himself. A potent sign of the genius which no external force can validly resist. Just as the weakness of the flesh delayed, but could not prevent, the triumph of Saint Augustine's vocation, so a rationalistic education retarded but did not impede the flowering of the mysticism of Pareto.

For that reason, Fascism, having become victorious, extolled him in life, and glorifies his memory, like that of a confessor of its faith.

University of Rome