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MACHIAVELLI BEFORE PARETO: FOXES, LIONS, AND THE SOCIAL EQUILIBRIUM AS THE RESULT OF NON-LOGICAL ACTIONS

BY
CLAIRE BALDIN AND LUDOVIC RAGNI

This article examines the way Vilfredo Pareto addresses the dynamics of social equilibrium and the evolution of economic institutions based on the principle of the rupture of the Machiavellian Moment. In the first part, we analyze why and how Pareto's categories (residues, derivations, interests, \social heterogeneity, logical actions*, and* non-logical[1] actions) *borrow from those of Machiavelli* (virtù, fortuna, corruptio*, and* ordine) *to define various forms of the Machiavellian Moment. In the second part, we show that this borrowing allows Pareto to explain: (i) the evolution of political equilibriums, from the distinction the author makes between "Maximum of utility FOR a community in sociology" and "Maximum of ophelimity FOR a community in political economy"; and (ii) the alternative between free trade and protectionism.*

I. INTRODUCTION

Vilfredo Pareto's affiliation with Machiavellian thinking is generally accepted. It is accepted by sociologists such as James Burnham (1943), Carl Friedrich (1965), and Julien Freund (1974); social psychosociologists such as Alasdair Marshall (2007); philosophers of law such as Jean-Claude Passeron (1993) and Thierry Ménissier (2013); and political scientists such as Raymond Aron (1938–1940a, 1938–1940b, 1938–1940c, 1938–1940d), Wayne Rebhorn (1988), Joseph Femia (2006), Robert Sparling (2014), and Antonio Gramsci (1931–1933). For their part, many historians of economic thought and sociologists focus on how Pareto articulates his analysis of logical actions in economics and how he deals with non-logical actions in sociology. These authors agree that this articulation implies that, like Niccolò Machiavelli, Pareto understands human nature realistically (Busino 1968; Passeron 1995; Federici 1999; Bouvier 1999a, 1999b;

Claire Baldin, Ludovic Ragni, University Côte d'Azur, CNRS, GREDEG, France
[1]It should be noted that, for Pareto, "non-logical" does not mean "illogical" (Pareto [1906–1909] 2014, p. 20).

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Béraud 2007; Bruni and Montesano 2009; McLure and Samuels 2014). However, few authors analyze this question by using the concepts that Pareto borrows from Machiavelli to build his own analytical categories and account for the evolution of economic institutions. At least three arguments justify an exploration of what Pareto owes to Machiavelli in this regard.

The first argument, which was proposed by Aron (1930–1940b), Friedrich (1965), Marshall (2007), and, more recently, Femia (2013), consists of acknowledging that Pareto and Machiavelli hold the same conception of human nature.[2] This is particularly clear in how Pareto accounts for the struggles of the elite to accede or to remain in power (Pareto [1916] 1935, pp. 1378–1383). Based on the same conception of man, Pareto and Machiavelli show how people appreciate those who govern them. This similarity in approach is confirmed by the terminology that Pareto borrows from Machiavelli. Citing Machiavelli's *Discourses on the First Decade of Titus Livius* (hereinafter *Discourses*; all references to Machiavelli's works are contained in *Œuvres complètes,* 1952), Pareto ([1916] 1935) states in *The Mind and Society: A Treatise on General Sociology* (hereinafter *Treatise*) that "men ordinarily are neither altogether good nor altogether wicked. [Pareto either does not know or is pretending not to know that those are Machiavelli's very words (Deca I, §27 and §1700)]. But wicked, good, and indifferent will all alike support a prince that is powerful, skilful, just" (p. 1378).[3] Confirming this opinion, Pareto uses the famous "foxes and lions" metaphor that Machiavelli uses to describe the behaviors favored by politicians to rise to power (Pareto [1916] 1935, pp. 1515–1516).

The second argument, and one that is discussed less frequently, assumes that this concept of man shows through broadly in the categories that Pareto develops in sociology to explain the evolution of social equilibriums or in economics to explain the emergence of institutions. Thus, according to Aron (1938–1940a, 1938–1940b, 1938–1940c), Giovanni Busino (1966), and Serge Audier (2005), the Paretian categories of *residues, derivations, interests*, and *social heterogeneity* correspond, to some extent, to those of *fortuna, virtù*, and *ordine* that Machiavelli uses to explain the political evolution of societies.

The third argument emerges from the observation that the categories developed by Machiavelli and Pareto are the result of a positive and realistic methodology, the purpose of which is to shed light on the laws of social and political evolution. These laws are based on uniformity[4] that the preceding categories contain and that Machiavelli and Pareto observe in the history of societies (Périn 1966; Bridel and Mornati 2009; Maniscalco 1999; Passeron 2000; Ragni 2012; Femia 2013; Valade 2005, 2013).

> Yet not even in that way will he escape the charge of immorality that was hurled by Machiavelli for merely stating uniformities which anybody can verify by a glance at history (§2459). Machiavelli has been accused of plagiarizing Aristotle and other writers. The fact is he happens to coincide with such of them as have described realities. (Pareto [1916] 1935, p. 1377)

[2]See, for example, Pareto ([1920b] 1976, pp. 235, 249, and 269).
[3]See Machiavelli (*Discourses,* 1952, p. 43).
[4]According to Pareto, "We are the looking for the uniformities presented by facts, and those uniformities we may even call laws.… Laws imply no necessity (§§29, 97). They are hypotheses serving to epitomize a more or less extensive number of facts and so serving only until superseded by better ones" (Pareto [1916] 1935, p. 35).

Confirming the previous quote, Machiavelli intends to explain the political evolution of principalities and republics based on two main mechanisms that we find in Pareto. One concerns the relationship between peoples and those ruling over them. The other concerns the struggle within the elite for power, a struggle that Machiavelli addresses in terms of the dialectic relationships between the concepts of virtù and fortuna as well as *corruptio* and ordine. Machiavelli sets out to explain how a political regime is established or continues when an equilibrium between virtù and fortuna promotes the advent of a lasting social ordine. The concept of ordine designates the shape that political institutions must take in order to satisfy the desires of the people, if those who govern show themselves able to organize these same institutions. The equilibrium between virtù and fortuna corresponds to the stability of the Machiavellian Moment (Rochet 2008), to which John-Greville-Agard Pocock (1975) refers in his work on this topic. In contrast, imbalances between virtù and fortuna, induced by corruptio in particular, are the source of many ruptures of this Machiavellian Moment.

There is a similar problematic related in Pareto's *Treatise*, one of its main objectives being to explain how institutional and economic equilibriums occur or are broken as the result of struggles for power among the political elite. Pareto accounts for these struggles by exploiting the dialectic relationships among the categories of residues, derivations, interests, and social heterogeneity, which he develops for this purpose. He devotes nearly all of the two final chapters of the *Treatise* to this question, of which the title is particularly evocative. The aim is to explain "the general form of society" and the theory of "the social equilibrium in history" (Pareto [1916] 1935, p. 1888) from concepts highlighted in the first 1,300 pages of the French version of the *Treatise*. As we will attempt to explain, Pareto is borrowing here from Machiavelli to explain how some economic institutions arise, such as those that set the rules for free trade or protectionism, or those that oversee the sharing of wealth between "rentiers" and "entrepreneurs" (French terms). This process is the result of the struggles for influence among certain elite.

In this context, the aim of this article is to appreciate how Pareto accounts for the dynamic of institutions or social equilibriums, using the principle of rupture of the Machiavellian Moment. We will show the extent to which the categories he uses to do so borrow from the concepts of virtù, fortuna, coruptio, and ordine that Machiavelli develops to explain struggles for power.

In section II we revisit the concept of the Machiavellian Moment in order to understand its role in Pareto's work. First, we show that this concept refers to a specific interpretation to which Pareto is referring to account for the struggles among the elite. Second, we highlight the principles governing his rupture of the Machiavellian Moment, using the concepts of virtù, fortuna, corruptio, and ordine used by Machiavelli. Third, we examine how Pareto borrowed the preceding categories and adapted them for his purposes, producing his own categories of residues, derivations, interests, and social heterogeneity, as well as logical and non-logical actions that he develops in sociology.

In section III we illustrate our arguments using two examples borrowed from Pareto's sociology and economics. First, we show how the author of the *Treatise* adapts the categories borrowed from Machiavelli to explain the evolution of social equilibrium.

We examine how Pareto explains the alternative between the rules of law that are favorable to free trade and those that are favorable to protectionism, based on the struggles among the elite with an interest in the continuation of one or the other of these forms of international trade. Through these examples, we reveal how Pareto's borrowings from Machiavelli underlie the way the author of the *Treatise* accounts for these questions in sociology by placing his results in pure economics in the background.

II. THE MACHIAVELLIAN MOMENT AND SOCIAL EQUILIBRIUM DYNAMICS

Machiavellian Moment Interpretations

There are three complementary interpretations of the Machiavellian Moment.

The first, and the oldest, refers to the crystallization of Machiavelli's thinking on the threats that affected the Republic of Florence due to the citizens' participative disengagement in the survival of their city. This analysis stems from observing the historical context that marked the evolution of the Florentine republic and led Machiavelli to develop his political philosophy (Bergès 2000).

The second, more recent, interpretation stems from the work by Pocock (1975), which puts Machiavelli's political philosophy in perspective. Pocock offers a rereading of Machiavelli's work to support the idea that the secretary of Florence developed a political philosophy that later was found in the North American republican tradition and that opposed John Locke's thinking. According to Pocock, Machiavelli and his contemporaries—Girolama Savonarola, Donato Giannotti, and François Guichardin—were confronted with the problem that the republic is a historical phenomenon, something that is born, lives, and, often, ends up ceasing to exist. From this perspective, Pocock believes that Machiavelli would have had the intention, in the *Discourses*, to identify the reasons why republic regimes endure. This proposition is based on an explanation of the dialectic between virtù and fortuna that Machiavelli proposes to understand the development and decline of both republics and principalities. To better understand Pocock's position, it is necessary to recall the reasons why he defends the dual interpretation of his book's title, *The Machiavellian Moment: Florentine Political Thought and the Atlantic Republican Tradition*. Indeed, the book's title refers to a first interpretation of the Machiavellian Moment as the period in history when Machiavelli's thinking appeared. It also designates the dialectic among virtù, fortuna, and corruptio that allows Pocock to reinterpret Machiavelli's republicanism.

Without initiating a more specific analysis of Pocock's work (Gaille-Nikodimov 2001; Ménissier 2001, 2013), we believe his thinking gives a significant place to a more traditional interpretation of a Machivellian Moment as a result of the dialectic between virtù and fortuna, leading either to generalized corruptio or to the social stability desired by the people, which corresponds to the concept of ordine. Pocock feels that many authors' interpretations of the dialectic between virtù and fortuna did not give sufficient weight to the concept of ordine, which Machiavelli employs in both the *Discourses* and *De Principatibus*, to show that the people want to benefit from institutions able to promote sufficient social equilibrium within the meaning of

Pareto.[5] The ordine is the result of the opposing forces of virtù and fortuna, which allow the people to pursue the social and economic activities they want to pursue. The ordine, as an institution, may become accustomed to the political regimes of the republic as well as the principality, so Pocock's thesis, according to which Machiavelli is at the origin of the North American republican tradition,[6] is defendable *stricto sensu,* but must be repositioned. According to Machiavelli in the *Discourses* (1952), "if the object of the Nobles and of the Ignobles [populace] is considered, it will be seen that the former have a great desire to dominate, and the latter a desire not to be dominated and consequently a greater desire to live free, being less hopeful of usurping it [liberty] than are the Nobles" (p. 198). Therefore, the problem for the prince or those who lead the republic is to find the appropriate way to balance the opposing forces of virtù and fortuna, because "part of the people wishes to be free to lead; but the others who are more numerous, wish to live in freedom and security" (Machiavelli, *Discourses*, 1952, I, p. 16).

Of course, the rupture of the equilibrium between virtù and fortuna assumes the end of the ordine. It is this third interpretation of the Machiavellian Moment, as equilibrium and rupture between virtù and fortuna, to which Pareto refers and which we will address here. This interpretation finds an analytical continuity in many political science and sociology works focusing, specifically, on the interactions between these two concepts to explain the management of public affairs, the evolution of institutions, and, in a broader sense, social dynamics (Burnham 1943; Strauss 1958; Colonna d'Istria and Frapet 1980; Sfez 2003, Audier 2005; Rochet 2008; Collin 2008).

Also, this third interpretation corresponds to Pareto's interpretation. Pareto suggests the desire is to identify that which is consistent in economic, political, and social relationships in order to distinguish the laws of evolution for society. For Pareto, these laws are based on the dynamic that he highlights among the categories of residues, derivations, interest, and heterogeneity or social circulation*,* whose foundations are found in those of fortuna, virtù, and ordine proposed by Machiavelli.

Virtù, Fortuna, Corruptio, Ordine, and Rupture of the Machiavellian Moment

According to Machiavelli, fortuna takes on a dual dimension. It is the source of malevolent coincidence, and can refer to events that bring benefits. In relation to the first

[5]Pareto considers the social equilibrium in the same way that an equilibrium is mechanic. He defines: "But however many, however few, the elements that we choose to consider, we assume at any rate that they constitute a system…. The system changes both in form and in character in course of time. When, therefore, we speak of 'the social system' we mean that system taken both at a specific moment and in the successive transformations which it undergoes within a specified period of time" (Pareto [1916] 1935, p. 1435). This interpretation is based on a connection between *De Principatibus* and the *Discourses*. This interpretation was one of Jean-Jacques Rousseau's and, in part, of Raymond Aron's (1960), who, admittedly, places much importance on the dialectic between virtù and fortuna, but reminds us that the author of *Contrat social* considered Machiavelli to be an honest man who loved freedom (Aron [1967] 1993, p. 401).

[6]For Strauss (1958), this reading does not contradict an interpretation of *De Principatibus* written to support the republic, although its main purpose was to give advice to a tyrant. Pocock's argument involves a reconsideration of the thesis of the "black legend" that Machiavellism defines, according to which men are inherently bad. This last opinion only partially reflects Machiavelli's intentions, as Pocock shows, and as Pareto clearly understood.

eventuality, fortuna is responsible for the struggles among men for power, struggles that produce changes in political and social equilibriums. Thus, on the one hand, it is synonymous with destructive or destabilizing events and angry actions emanating from the greed of princes and men more generally (Machiavelli, *De Principatibus,* 1952, pp. 356–362).[7] On the other hand, it is at the origin of the changes required for social progress. In the latter sense, it is a positive principle, as long as those who have the requisite virtues are able to grasp the opportunities (Machiavelli, *De Principatibus,* 1952, ch. VI). Therefore, fortuna is not systematically harmful; however, it is a necessary condition for better organizing political institutions (Machiavelli, *De Principatibus*, 1952, p. 42). Therefore, fortuna, as "goddess of fertility," but also of "arbitrary strength and instability," designates what men should not to their personal merit (Rélang 2003, p. 650). It is synonymous with good fortune and that which politicians owe to others (Machiavelli, *De Principatibus*, 1952, pp. 306–312). It also designates that which men owe to good fortune and which they are able to grasp, either to gain power or to maintain it for as long as they possess the necessary virtues (Machiavelli, *Discourses*, 1952, p. 996).

Further, fortuna expresses uncertainty—that is, the full range of the threats that jeopardize the stability of the entire political regime.

In a complementary way, the role of virtù is to enable the emergence of an institutional order (ordine) that is able to resist the assaults of fortuna as long as this order allows the people to perform the activities they want to perform, even if, by nature, the people do not like to be governed. For Machiavelli, ordine is the equivalent of an institutional organization that must guarantee lasting civil peace. In this sense, Machiavelli believes there are no ideal institutional organizations; thus, ordine may result from the republic as well as the principality. The dynamic between virtù and fortuna supports the laws governing the evolution of political institutions—that is, their moments of equilibrium and possible rupture. The author of *The Prince* seeks confirmation in Ancient Rome and the Florence of his day.

For his part, as does Machiavelli, Pareto refers to the history of institutions to define the categories of his sociology and to explain the dynamic of social equilibrium as the result of the struggles among the elite for power. In this sense, Pareto acknowledges that Machiavelli always wanted to outline the uniformities between the facts and to deduce the laws of social evolution that result from the struggles for power (Pareto [1916] 1935, p. 1377). Machiavelli expresses the same idea in the *Discourses*:

> And it is easily recognized by those who consider present and ancient affairs that the same desires and passions exist in all Cities and people, and that they always existed. So, that to whoever with diligence examines past events, it is an easy thing to foresee the future in any Republic, and to apply those remedies which had been used by the ancients, or, not finding any of those used, to think of new ones from the similarity of events. But as these considerations are neglected or not understood by those who govern, it follows that the same troubles will exist in every time. (Machiavelli, *Discourses*, 1952, p. 467)

[7]The anger of the events is especially well illustrated in the *Décennales*, which "charts the hardships that Italy endured for aeons under unlucky stars" (Machiavelli, *The First Decade*, 1952, p. 36) and "the grave events and furious actions that occurred" (Machiavelli, *The Second Decade*, 1952, p. 48). See Gaille-Nikodimov (2001, p. 129).

According to Machiavelli, fortuna is a source of threats for the men who must take action to maintain the stability of the republic or other forms of political regimes, if these men are marked by virtù. In this sense, fortuna is at the origin of the destabilization of the social equilibrium resulting from power struggles during which men are well advised to use force. In the *Treatise*, Pareto transposes this dynamic to the study of the struggles for power among the elite. He proposes an analysis based on the reasons that motivate men's actions when their goal is to promote a political regime or institution (Pareto [1916] 1935, pp. 1378–1379).

Virtù also refers to men's physical and moral values, which allow them to seize the opportunities of history. It allows the people to take power when fortuna incites them to do so, or to protect institutions if they show themselves capable of resisting fortuna's assaults. It is due to the leader's virtù and because the citizens show themselves able to share certain civic values (ordine) or economic institutions that the republic can endure, just as can any other regime, which somewhat diminishes Pocock's interpretation that Machiavelli is the forerunner of American republicanism.

Machiavelli recognizes the existence of a continuous destabilization of institutions when fortuna overtakes virtù, which corresponds to a movement between two groups of people: those who do not wish to be governed and those who intend to lead. The future of the republic or of any political institution depends upon a virtuous sharing of civic values between the citizens and the prince or between the citizens and the elite. To guarantee the stability of an institution or political regime, the dynamic between virtù and fortuna implies that ethics favor the end of a political regime and that the common good should be disassociated from the necessary means to maintain it. In this sense, the Machiavelli of the "black legend" does not correspond to the thinker in the *Reason of State*. Machiavelli is a republican, even though the precepts he develops can also be applied to other institutions. Also, it is essential to appreciate completely the concept of dissociation of the ways to guarantee an ordine, whose ethics are uncontestable. In fact, if Machiavelli believes in the republic and in the principality, he does not believe in regimes of assemblies that legislate, because he believes these regimes are not viable, as the history of Florence confirms. Therefore, the problem is knowing how to impose an ethics for the republic or the principality that might imply the use of force.

This point does not escape Pareto ([1920a] 1970), who explains about plutocratic regimes that "modern parliaments appear to be efficient instruments for demagogic plutocracy. First in the elections, and then in the deliberations, they provide a large field of activity for men who have a strong *instinct for combinations*. For this reason, the modern parliamentary regime partially follows the fate of plutocracy: it prospers and declines with it; and its transformations" (p. 50). According to Machiavelli, regarding principalities (Machiavelli, *De Principatibus*, 1952, pp. 317–320), and according to Pareto, regarding plutocracies, the political organization of a durable ordine involves the existence of governments that want to dominate and a people who aspire to politico-economic stability but who do not want their freedoms limited.

We find this opposition between the masses and the elite in Pareto, who defines "the elite" as the group of people who possess certain qualities, as against those, more numerous, who do not possess them. This opposition implies a second one, which concerns the elite's struggle for power and the organization of economic and social institutions that would benefit it. These struggles are expressed as a series

of ruptures of Machiavellian Moments, which Pareto uses to express the laws that determine social equilibriums between the political elite itself, as well as between the elite and the governed masses.

Paretian Categories and the Reformulation of the Machiavellian Moment

According to Pareto, a social heterogeneity is characterized by an elite consisting of a minority of individuals with exceptional qualities and a majority with lesser qualities (Pareto [1916] 1935, pp. 1421–1428). The struggles between the government elite, on the one hand, and the masses, on the other, support the prevailing mechanisms to conquer or defend power. The struggles explain also how new institutions—in particular, economic ones—may be promoted and why others continue (Pareto [1916] 1935, pp. 1423–1429). Alongside the idea of establishing sufficient ordine, these struggles are organized around a series of Machiavellian Moments resulting from the interactions among the categories of residues, derivations, interests, and social heterogeneity. These categories support the non-logical actions of individuals and groups (Pareto [1916] 1935, pp. 89–93, 1435–1436). An action is non-logical (which does not mean "illogical") when its objective goal differs from its subjective goal (Pareto [1916] 1935, pp. 75–88), regardless of whether or not these goals exist. The subjective goal depends on an individual's assessment, and the goal is objective if a scientist has verified empirical basis or validity, but the individual does not necessarily accede to these scientific proofs. An action is logical if the objective goal of the scientist corresponds to the subjective goal of the individual agent (Pareto [1906–1909] 2014, pp. 20–21; Pareto [1916] 1935, p. 77). In this case, the rationality of economic agents corresponds to Herbert Simon's instrumental rationality and considers it as a harmony between the means used and the targeted goals. With reference to the concept of non-logical actions, the behaviors of individuals depend on psychological forces beyond their conscious control and that manifest themselves through residues. These are an indirect and partial expression of instincts specific to human nature that we find discussed in Machiavelli (Aron 1938–1940b; Perrin 1966; Busino 2008). The residues correspond to *préconstruits*, which cannot be completely understood and which men use to act and to adapt to their environment (Pareto [1916] 1935, pp. 499–516).

The derivations correspond to the expressed and variable part of the residues. They support the mechanisms of pseudo-logical rationalization to which individuals turn to justify their actions. They are the expression of reasoning, accurate or false, that enables individuals to convince themselves or to convince others of the relevance of the ideologies or institutions they wish to promote cynically or in good faith (Pareto [1916] 1935, pp. 992–994).[8] They correspond to the means the individual finds to better reach his goal, without the reasoning being perfectly rational.[9]

[8]"The residues are manifestations of sentiments. The derivations comprise logical reasoning, unsound reasoning, and manifestations of sentiments used for purpose of derivation: they are manifestations of the human being's hunger for thinking" (Pareto [1916] 1935, p. 889).

[9]For Pareto, a non-logical action might have been the best that could be found, given observation, facts, and logic, to adjust the means to the end; but this adjustment was obtained by a procedure other than that of logical reasoning. See Busino (1999) and Boudon (2000, 2013).

The residues, instinctively, and the derivations, as pseudo-logical arguments, express the interests of the social actors to reclaim their desire to possess goods and power (Pareto [1916] 1935, p. 1406).

The interdependency among these categories allows Pareto to explain the power struggles among the elite. These struggles are the expression of different derivations and residues that differentiate one elite from another (Pareto [1916] 1935, pp. 1421–1478). This dialectic allows Pareto to explain that the evolution of socio-political equilibriums can be represented by an "undulating curve" whose reversal points can be identified as ruptures of the Machiavellian Moment. We can understand here that the elite, who owns the most efficient residues, or who would be able to develop sufficient derivations, will also be more apt to seize the most appropriate moment to use virtù to act at the most favorable time or to respond to fortuna.

Three classes of Pareto's residues (I, II, and IV; Pareto distinguishes six classes) crystallize the forces necessary to renew and maintain some of the elite, and the form this renewal may take from an intentional point of view.[10]

For Pareto, to remain in power, an elite must be driven more by residues of *instinct for combinations* (Class I) than by residues of *persistence for aggregates* (Class II), which the elite might lack if it exercises its power for a long time. Class I's residues are the expression of the instincts of cunning, adaptation, or innovation. The elite in power often activates these residues to avoid using force against another elite who would try to take power or promote institutions that would be of interest to it. The instinct for combinations clearly corresponds to the cunning behaviors Machiavelli attributes to *foxes*. However, the residues of persistence for aggregates express instincts of defence or conquest, possibly violent, of an institution. They express the behaviors of the defending family, religion, or nation. They refer to the behaviors of Machiavelli's *lions* in the sense that, if an elite wishes to remain in power, he must be willing to use force.

Also, the elite in power may, by activating the residues of instinct for combinations, ensure the loyalty of individuals who possess residues of persistence for aggregates so that they eliminate the elite that would attempt to gain power.

Finally, if the elite in power is unable to use force and cunning (because it does not possess sufficient residues of persistence for aggregates or residues of instinct for combinations), it often is characterized by residues *connected with sociality* (Class IV), such as those from *reasoned repugnance to useless sufferings* or those from *self-sacrifice for the good of others*. In many circumstances, residues connected with sociality display the weakness of the elite in power, which prefers to satisfy its opponents to preserve its interests momentarily, even if it means losing power in the long term.

There is little doubt that Pareto's categories borrow extensively from the Machiavellian themes of force and cunning (Burnham 1949). The author of the *Treatise* refers to the author of *De Principatibus* by indicating that the opinion of certain elite is eventually imposed through cunning when the derivations that they activate are effective for

[10]Pareto distinguishes six classes of residues. For Aron (1938–1940b, p. 92) and Pareto himself, it is possible to bring back certain residues from classes IV and V (residues connected with sociality and residues of *integrity of individual and his appurtenances*) to the residues in class II (persistence for aggregates). Other residues from class V find their equivalents in class I (instinct for combinations). Finally, the residues from class III (*need of expressing sentiments by external acts*) and class IV (connected with sociality) are not used to describe the evolution of social equilibriums.

convincing others that their objectives are appropriate. In other circumstances, the use of force allows the elite to exercise power or to impose an institution. Pareto shows how strategies based on the residues of Class I, if they enable the short-term survival of the elite, often lead to loss if this same elite refuses to use force (residues of Class II) and if this elite is characterized by too much residue of Class IV. The dynamic between residues of instinct for combinations and residues connected with sociality, on the one hand, and persistence for aggregates, on the other hand, gives way to the power struggle that Machiavelli expresses in the *foxes and lions* metaphor. We can consider, without misrepresenting Machiavelli's thinking, that the foxes are characterized by cunning and, therefore, instinct for combinations, and the *wolves* are characterized more by violence and, therefore, persistence for aggregates. This dynamic implies also that the foxes may use cunning or their instinct for combinations to guarantee the strength of the lions, in order to respond to the strength of wolves, who would take power by activating residues of persistence for aggregates.

> The first type (cunning) is characteristic of men, the second (strength) is characteristic of beasts; however, since the first is often not enough, the second must be used. This is why the Prince must know how to exercise beast and man. The Prince, who must act as a beast, will attempt to be both fox and lion because, if he is only a lion, he will not see the traps; if he is only a fox, he will not defend himself against the wolves; he also needs to be a fox to know the traps, and a lion to scare the wolves. (Machiavelli, *De Principatibus*, 1952, p. 341)

Therefore, knowing to activate the effective derivations at the right moment can be interpreted as knowing to express the principles of virtù, which Machiavelli considers to be necessary to exercise effective power. Likewise, fortuna, as a synonym of conditions to grasp, characterizes the moments of opposition between the Paretian elite with different virtù, while, for Machiavelli, it is about either how to organize an institution to protect the established order against the assaults of a new elite, or how an elite can reduce this order to take power. In this sense, according to Pareto, the precepts that prevail for the rupture of social equilibrium are based on the same explanations as those recommended by Machiavelli. Pareto explains how the struggles among the elite, characterized by different quantities of residues from classes I and II, lead to a reduction or emergence of a political regime. According to Pareto, the accumulation of individuals in possession of residues of instinct for combinations or residues connected with sociality among the dominant class explains the loss of their power, because these same individuals will prefer the cunning that consists of buying peace to sustain their interests in the short term, rather than preserving power by using force. This dynamic for conquering power is coupled with the dynamic between the political elite who hold this power and the people. A political elite cannot keep itself in power unless it has sufficient residues of persistence for aggregates to impose upon the people by means of ideological arguments and, eventually, strength. Referring to Machiavelli, Pareto stresses the role of residues of Class II, which were lacking in Italy in the early twentieth century (Pareto [1916] 1935, p. 1685). Likewise, quoting the *Discourses*, he states that to maintain a State, the prince will come up against fewer obstacles among uneducated peoples who are subject to religion than among civilized peoples who are corrupt by nature. Here, he parallels Machiavelli, for whom the virtù of the prince, if he wants to maintain power, must ensure that an ordine that meets the interests of the people and

reduces their natural tendencies toward corruptio continues. In Paretian terms, this means establishing derivations that allow an elite to impose itself in order to guarantee a lasting social equilibrium. If this equilibrium is ruptured, another elite comes to power.

We find many examples of this dynamic in Pareto's sociology and economics. Two in particular illustrate the way the author of the *Treatise* adapts the concepts he borrowed from Machiavelli for his own purposes. One of these examples concerns the evolution of social equilibriums; the other concerns the alternative between free trade and protectionism.

III. PARETO'S MACHIAVELLIAN MOMENT, SOCIAL EQUILIBRIUM, AND THE DYNAMICS OF ECONOMIC INSTITUTIONS

The Machiavellian Moment and Social Equilibrium

If we follow the *Sommaire du Cours de Sociologie Générale,* Pareto's main objective is to highlight the laws of moving from one social equilibrium to another.[11] In the *Treatise* this objective implies synthesizing the results obtained in pure economics with those from sociology (Pareto [1916] 1935, p. 1415). To do so, Vilfredo Pareto indicates that he proceeds by successive approximations, from the simplest (pure economics) to the most complex (sociology) (Pareto [1906–1909] 2014, pp. 9–20),[12] and by applying a method he calls "logico-experimental" (Pareto [1898] 1966, 1900, [1916] 1935, [1918] 1976).

A significant part of this synthesis requires an explanation of the struggles among some of the elite to obtain power. Therefore, the objective of the final chapter of the *Treatise* is to explain the differences between a "*Maximum of ophelimity FOR a community in political economy*" and a "*Maximum of utility FOR a community in sociology.*" This problem illustrates how social equilibriums succeed and gives significance to the rupture of the Machiavellian Moment. It constitutes an example enabling us to understand why a theorem in pure economics is not necessarily compatible with an explanation in sociology.

For this purpose, our author attempts to show why a "Maximum of utility FOR a community in sociology" is a consequence of the struggles among certain elite, while this maximum does not correspond to that which is obtained in pure economics. Pareto starts from the principle that it is impossible to compare, inter-individually, ophelimity in economics. *A contrario*, for Pareto, it is possible that a public authority, or a group of individuals interested in doing so, may assess various levels of "utility FOR a community in sociology."

> In pure economics, a community cannot be regarded as a person. In sociology, it can be considered, if not as a person, at least as a unit. There is no such thing as the ophelimity of a community; but a community utility can roughly be assumed. So, in pure economics there is no danger of mistaking the maximum of ophelimity *for* a community for a

[11]The title of the last chapter in the *Treatise*—"The General Form of Society"—attests to this objective.
[12]See Marchionatti and Gambino (1997, 2000), Marchionatti (1999), Sfez and Senellart (2001), Bruni (2000, 1996/2002, 2009), and Tusset (2013).

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> non-existent maximum of ophelimity *of* a community. In sociology, instead, we must stand watchfully on guard against confusing the maximum of utility *for* a community with the maximum of utility *of* a community, since they both are there. (Pareto [1916] 1935, p. 1471)[13]

For Pareto, the pleasure or the ophelimity of a community does not exist. There is no risk of mistaking, in pure economics, the maximum of utility for a community and the maximum of ophelimity of a community. However, by explaining how a political elite accedes to or remains in power, or how an elite can defend its interests, Pareto justifies why certain collective choices are made (Pareto [1916] 1935, p. 1376). These choices take the shape of institutional rules or types of government favorable to the elite in power. Therefore, we understand that the "Maximum of utility FOR a community in sociology" does not correspond to the "Maximum of ophelimity FOR a community in political economy." This means that the social equilibrium resulting from the struggles among the elite is not always the "Maximum of utility FOR a community in sociology." First, the social equilibrium achieved may not be collectively optimal; second, by switching from one social equilibrium to another, the gain obtained by one elite may not compensate the loss of another elite; and, third, it does not correspond to the "Maximum of ophelimity FOR a community in political economy."

To justify his remarks, Pareto considers various configurations of the struggles for power, which he discusses using historical examples. Each configuration is a reflection of the variable quantities of residues that characterize the elite concerned. Five possibilities can be considered.

The first corresponds to situations in which the elite that rules or holds some type of power is not able to use force against a small number of individuals who are ready to use force. The individuals who are able to use force, in this case, have sufficient residues of persistence for aggregates. The situations anticipated by Pareto are those in which a humanitarian aristocracy is in power, but is unable to maintain power because it is characterized by too many residues connected with sociality (Residues of Class IV—*Instinctive repugnance to sufferings; Reasoned repugnance to useless sufferings; Self-sacrifice for the good of others; Sharing one's property with others; Need for group approbation)*. In this case, for Pareto,

> when the subject class contains a number of individuals disposed to use force and with capable leaders to guide them, the governing class is, in many cases, overthrown and another takes its place. That is easily the case where governing classes are inspired by humanitarian sentiments primarily and very easily if they do not find ways to assimilate the exceptional individuals who come to the front in the subject classes. (Pareto [1916] 1935, p. 1516)

This quotation attests to the fact that Pareto views humanitarian aristocracies or plutocracies as unstable institutional forms.

[13]According to Pareto, the estimation of ophelimity *for* a community in sociology is done "more or less vividly, more or less vaguely, in practical life; and it is say that a government ought to stop at the point beyond which no 'advantage' would accrue to the community as a whole, that it ought not to inflict 'useless' sufferings on the public as a whole or in part, that it ought to benefit the community as far as possible without sacrificing the 'ideals' it has in view 'for the public good', that it ought to make efforts 'proportionate' to purposes and not demand burdensome sacrifices for slight gains" (Pareto [1916] 1935, p. 1471).

To illustrate this, the author refers to Machiavelli's foxes and lions metaphor, which shows how a prince must use cunning or force if he wants to retain power (Pareto [1916] 1935, pp. 1342, 1377–1382). Citing the *Discourses*, Pareto specifies: "I hold it very true that seldom if ever do men of low estate rise to a high place without use force and deceit … nor do I believe that force alone will ever be found to suffice, but it will be easily found that deceit alone may suffice" (Pareto [1916] 1935, pp. 1377–1378).

Based on a second possibility, the author of the *Treatise* admits that it is difficult to remove an elite from power if it has sufficient residues of instinct of combinations to make it skilled in the use of cunning or corruption:

> 1. A mere handful of citizens, so long as they are willing to use violence, can force their will upon public officials who are not inclined to meet violence with equal violence. If the reluctance of the officials to resort to force is primarily motivated by humanitarian sentiments, that result ensues very readily; but if they refrain from violence because they deem it wise to use some other means, the effect is often the following: 2.To prevent or resist violence, the governing class resort to 'diplomacy', fraud, *corruption*—governmental authority passes, in a word, from the lions to the foxes. The governing class bows its head under the threat of violence, but it surrenders only in appearances, trying to turn the flank of the obstacle it cannot demolish in frontal attack. In the long run that sort of procedure comes to exercise a far-reaching influence on the selection of the governing class, which is now recruited only from the foxes, while the lions are blackballed.… 3. So it comes about that the residues of the combination-instinct (Class I) are intensified in the governing class, and the residues of group-persistence (Class II) debilitated; for the combination-residues supply, precisely, the artistry and resourcefulness required for evolving ingenious expedients as substitutes for open resistance, while the residues of group-persistence stimulate open resistance, since a strong sentiment of group-persistence cures the spine of all tendencies to curvature. (Pareto [1916] 1935, pp. 1515–1516; our emphasis)

In other circumstances, and based on a third possibility, in order to remain in power, the elite must ensure the service of those who possess a sufficient instinct for combinations so that they do not seize power themselves by leading the masses, who are governed and are able to resort to violence.

A fourth possibility corresponds to situations where, within the class of dominated individuals, there are enough individuals characterized by residues of persistence for aggregates, which they have accumulated over time. These residues correspond to the capabilities of these individuals to use force if they are guided by an elite (Pareto [1916] 1935, p. 1516).

In Machiavellian terms, these conditions are ripe for the torments of fortuna and the violence of the wolves if those in power do not have sufficient virtù to withstand it.

However (the fifth possibility), if those in power are characterized by sufficient residues of the instinct for combinations—that is, the ability to corrupt those who are able to defend their interests—and sufficient residues of persistence of aggregates characterize the mass of the governed class, the prevailing political system will show strong stability.

> It is far more difficult to overthrow a governing class that is adept in the shrewd use of *chicanery, fraud, corruption*; and in the highest degree difficult to overthrow such a

> class when it successfully assimilates most of the individuals in the subject class who show those same talents, are adept in those same arts, and might therefore become the leaders of such plebeians as are disposed to use violence.… However, in the long run the differences in temperament between the government class and the subject class become gradually accentuated, the combination-instincts tending to predominate in the ruling class, and instincts of group-persistence in the subject class. When the difference becomes sufficiently great, revolution occurs. Revolution often transfers power to a new governing class, which exhibits a reinforcement in its instincts of group-persistence. (Pareto [1916] 1935, pp. 1516–1517; our emphasis)

Once again, in Machiavellian terms, the above quotation stipulates that an elite can maintain power if the cunning of the fox is able to supplant the strength of the wolves.

This is not always possible: first, in particular, if the elite contesting power accumulates more residues of the instinct for combinations than the elite that is in power; and, second, if the elite in power is less and less able to use force because it is characterized increasingly by residues connected with sociality. In this case the strength of the wolves triumphs.

In summary, an elite maintains power if it holds a sufficient instinct for combinations, which reflects its abilities to corrupt those who are able to respond, by force, to individuals contesting the established order. Corruption, according to both Pareto and Machiavelli, plays an essential role here because it allows an elite momentarily to maintain power. However, it is corruption that precipitates the fall of this same elite if too many individuals from the governed class are corrupted. This scenario arises if more individuals characterized by residues of instinct for combinations accumulate within the governed class on the side of those in power and are characterized by too many residues connected with sociality. In other words, the accumulation of the corrupted individuals within the governed class and within the elite in power threatens the equilibrium of the Machiavellian Moment.

Machiavelli sets a similar problem when he deals with corruptio and ordine as recurring themes in *Discourses*. According to Machiavelli, corruptio is a characteristic of human nature (Machiavelli, *Discourses*, L. I, chs. 17, 18, 42, 55). It bears witness to the passing of time in the explanation of political cycles. In this sense, the accumulation of corrupted behaviors leads to the degradation of a political institution or the power in place. This accumulation marks the end to the prevailing ordine at a given time during the history of a republic, a principality, or a rule of law. *A contrario*, "the good armies and good laws, guaranteed by a religion that has become the moral sense, allow *virtù* to delay the dangers induced by *fortuna* and *corruption"* (Machiavelli, *De Principatibus,* 1952, pp. 324–325; *Discourses*, 1952, I, ch. 31, pp. 688–689). To prevent this from happening, only the force of a prince can prevent corruptio from leading to the collapse of the established ordine:

> And this conclusion can be drawn, that where the people is not corrupted, tumults and other troubles do no harm; but where corruption exists, well ordered laws are of no benefit, unless they are administered by one who, with extreme strength, will make them be observed until the people become good [cured].… And I will presuppose a City very corrupt, where such difficulties come to rise very fast, as there are found there neither laws or institutions that should be enough to check a general corruption. For as good customs have need of laws for maintaining themselves, so the laws, to be observed, have need of good customs. (Machiavelli, *Discourses*, 1952, I, 17–18, pp. 427–429)

According to Machiavelli, generalized corruptio among the ruling class and an increasing number of individuals belonging to the people correspond to the role that Pareto assigns to the accumulation of the residues of instinct for combinations to the detriment of the residues of persistence of aggregates.

> Revolutions come about through accumulations in the higher strata of society—either because of a slowing-down in class-circulation, or from other causes—of decadent elements no longer possessing the *residues* suitable for keeping them in power, and shrinking from the use of force; while meantime in the lower strata of society elements of superior quality are coming to the fore, possessing residues suitable for exercising the functions of government and willing enough to use force. (Pareto [1916] 1935, p. 1431)

Pareto's references to Machiavelli are clear also when he explains that the concessions an elite might make towards those who contest the established order are in vain if this elite does not agree to use force: "If concessions made to the extreme parties were not effective in the past, they will be even less so in the future, because, as Machiavelli observed, with a deep knowledge of human nature, the concessions that we believe are made due to fear or weakness, always backfire on those who make them" (Pareto [1904] 1984, p. 244).

Therefore, we have a better understanding of why Pareto makes a distinction between "Maximum of utility FOR a community in sociology" and "Maximum of ophelimity FOR a community in political economy." The purpose is to demonstrate that even if mathematical economics allows us to demonstrate that a "Maximum of ophelimity FOR a community in political economy" is an optimal allocation, nothing explains that this allocation effectively takes place. It is more the struggles among the elite that allow us to understand why a "Maximum of utility FOR a community in sociology" effectively takes place.

An example borrowed from the *Treatise* well illustrates this eventuality in economy. It involves legal rules that some of the elite benefit from in promoting the fostering of free trade or protectionism.

The Machiavellian Moment as a Principle to Explain the Alternative between Free Trade and Protectionism

In the *Manual,* Pareto considers that he has mathematically demonstrated the superiority of free trade over protectionism (Pareto [1896–1897] 1964, pp. 208–275; [1906–1909] 2014, pp. 255–267; [1916] 1935, pp. 1544–1545). He confirms this result on several occasions by highlighting statistically the adverse consequences of increasing customs tariffs imposed by Italian law in 1887 (Pareto [1891] 1992, [1892] 1984, [1893] 1984). However, Pareto thinks that these demonstrations are not sufficient to explain why, in many situations, protectionism prevails over free trade. He proposes to explain this phenomenon based on the struggles among some of the elite in favor of one or another of these types of international trade (Aron 1967; Steiner 1995; Ragni 2012).

The demonstration is principally based on a diagram developed in chapter II of the *Treatise* that involves four *elements* (Pareto [1916] 1935, p. 90). It is completed in chapter IX through the use of several examples. The aim is to explain the interactions among residues, derivations, interests, and social heterogeneity to understand why protectionism and free trade occur. In this respect, Pareto stresses the preponderant

role of non-logical actions and the residues to explain the emergence of laws favorable to protectionism or free trade. These interactions are examined based on three main relationships and three secondary relationships, which reveal ruptures of the Machiavellian Moment, depending on whether such and such an elite has an interest that protectionism or free trade occur.

According to Pareto, one or the other of these forms of international trade is the result of an equilibrium between the residues of persistence of aggregates and the residues of instinct for combinations, which reflect the psychological states of the actors. This "psychological state" is qualified as *Element A*. The equilibrium between these residues gives rise to non-logical actions, which are justified by the derivations that an elite must develop to support either free trade or protectionism. Element A is at the origin of two main relationships.

The first concerns the practice of either free trade or protectionism, as the case may be. This concrete practice of free trade or protectionism is qualified as *Element B*. The derivations resulting from Element A may be interpreted as pseudo-logical or ideological arguments, which allow an elite to defend the practices of free trade or protectionism. Hence, the purpose of these arguments is to promote the laws determining international trade, such that the interests of the elite developing them are better defended. The elite that possesses the best-adapted residues ends up imposing the laws for its benefit. Here, we find the circumstances that prevail in the oppositions between the foxes and the wolves described by Machiavelli.

> The ferocity of the old days is tending to give way to cunning.… Quite a number of workingmen understand perfectly well that all the claptrap of parliamentary literature [Derivation] serve merely to dissemble the real considerations that determine the policies of governments. The protectionists get along by subsidizing a few big party leaders [And here and there a little one, and not only with money, but by flattering their vanity, nudging a newspaper to praise them, getting them decorations and posts of influence.] and supporting newspapers which in turn support the policies of those party leaders. The workers have not money, but they have at their disposal a far more effective means of action: they can *frighten*. (Pareto [1916] 1935, p. 1535)

According to the above quotation, the foxes (protectionists) use cunning and the wolves (workers) use force, according to whether they are the carriers of the instinct for combinations or the residues of persistence of aggregates. Again, Pareto attempts to show that it is not because a theorem demonstrates the superiority of free trade that this type of international trade should automatically be imposed.

> It is the same with customs protection. All the theories for or against it have not had the slightest practical effect; studies or speeches on the subject have been able to have some effect, to be sure, but not on account of their scientific content, but because they aroused certain sentiments and gave some people having certain interests the opportunity to unite. (Pareto [1906–1909] 2014, p. 217)

The connection between the demonstrated theorem and the interests pursued by a certain elite is secondary for Pareto. It is more the confrontation between the non-logical actions supported by adequate derivations, which are generated by specific residues that enable an elite to convince the majority to adopt protectionism or free trade.

The second relationship expresses the opposition of the elite characterized by previous residues to promote the pure theory of free trade or protectionism. One or another of these theories constitutes *Element C* of the explanation at such and such a time in history. Therefore, it is the power struggle among the elite, relayed by an efficient argumentation that explains that protectionism and free trade succeed each other as the result of a series of ruptures of the Machiavellian Moment. The argumentation is demonstrated logically in the case of free trade. According to Pareto, it is false and non-logical in the case of protectionism.

Finally, Pareto highlights how concrete actions of exchange in international trade (*Element D*) result from the psychological states of agents or from their group behavior, supported by previous residues emanating from Element A.

The adoption of institutions favorable to free trade or protectionism (Element B) results little from theories that might justify them (Element C) or from concrete international trade practices (Element D). It relies more on the psychological state that characterizes one elite rather than another and the rupture of equilibrium between the residues of persistence of aggregates and the residues of instinct for combinations.

The periods in history when free trade and protectionism succeed each other are many moments where the equilibrium between virtù and fortuna is broken and that correspond to the end of an unstable ordine. Using Machiavelli's terminology, this dialectic can be translated as the impossibility for virtù always to resist the injunctions of fortuna. In other words, the elite that imposed its points of view by resorting to the residues of persistence of aggregates will, in a second phase, be more inclined to resort to the residues of instinct for combinations. It will prefer to use cunning rather than force in order that protectionism or free trade endures. Therefore, an elite that is able to seize fortuna at the right moment, thanks to the virtù that characterizes it, can reveal itself able to prompt the passage from free trade to protectionism or vice versa. In Paretian terms, the elite in favor of free trade at a moment in history will be marked increasingly by the residues of instinct for combinations, expressing the cunning behaviors Machiavelli attributes to the foxes. This same elite shows itself as unable, in some circumstances, to resist the residues of persistence of aggregates that often force behaviors that Machiavelli attributes to the wolves. In this case, the elite in favor of protectionism will be able to activate enough pseudo-logical arguments to impose its interests even if these interests are costly in terms of social welfare. Pareto is clear on this point. He explains that protectionism can favor one part of the population that possesses specific qualities of instinct for combinations at the expense of another part of the same population characterized by an important number of persons who possess residues of persistence of aggregates (Pareto [1916] 1935, pp. 1563–1565). For Pareto ([1916] 1935):

> A step forward along the scientific path was taken when the theories of mathematical economics supplied a proof that, in general, the direct effect of protection is a destruction of wealth.... But before such a proposition can be taken for granted, the indirect effects and the social effects have to be known.... [W]e find that protection transfers a certain amount of wealth from a part, A, of the population to a part B, through the destruction of a certain amount of wealth, q, the amount representing the costs of the operation. If, as a result of this new distribution of wealth, the production of wealth do[es] not increase by a quantity greater than q, the operation is economically beneficial.

> The latter case is not barred a priori; for the element A contains the indolent, the lazy, and people, in general, who make little use of economics combinations; whereas element B comprises the people who are economically wide-awake and are always ready for energetic enterprise—people who know how to take effective use of economics combinations. (pp. 1545–1546)

In the most probable case, where the social actors are guided by non-logical actions, it is the residues and the derivations that play the main role, because they refer to the cunning used by a group of agents to convince the majority to adopt the theory of international trade that suits this group. It is a mechanism of struggle between the strong and the weak that puts in the background demonstrations of pure economics to explain the emergence of free trade or protectionism.

IV. CONCLUSION

The previous discussion has highlighted that Paretian categories borrow extensively from Machiavellian categories. Both authors refer to the same realistic conception of human nature. They give prominence to the pseudo-logical or ideological reasoning used by men, collectively or individually, to convince others of the merit of their objectives. The arguments refer to a specific dialectic between Machiavelli's virtù and fortuna, whose aim is to understand how struggles for power enable a particular ordine to endure. An important part of this dialectic is found in the Paretian categories of residues, derivations, interests, and social heterogeneity. These categories support various configurations of the struggle among the political or economic elite. They mark many instances of rupture of the Machiavellian Moment. Thus, Pareto explains, in the first two chapters of the *Manual* as well as in the *Treatise,* how socio-economic equilibriums occur or are broken and how some economic institutions endure or are superseded.

Although Pareto's borrowings from Machiavelli are undeniable, they point to an inherent difficulty with regard to the method proposed by the author of the *Treatise*. Although this difficulty goes far beyond the scope and objectives of this article, it should be at least mentioned.

Pareto proposes a synthesis of his results from pure economics and applied economics with those from his sociology, because they all result from the same experimental method. Pareto ([1917] 1975) confirmed this during his jubilee:

> I could see the experimental reality and could not reach it. Several obstacles prevented me: among others, the mutual dependence of different social phenomenon; which does not permit the isolated study of various types of phenomena (economic and sociological), and which indefinitely prevents one from progressing if it remains deprived of help from the others. (pp. 67–68)

The successive approximation method of economics and sociology results and their synthesis are not incompatible with the distinction between logical actions and non-logical actions, which continues to structure the social sciences today (Passeron 1993; Boudon 1999, 2013; Aspers 2001). Undoubtedly, the logical actions belong to the theory of rational choice while the non-logical actions belong to sociology.

However, we can doubt that this separation, between economics and sociology, can (as Pareto suggests) produce a synthesis of the results obtained for both disciplines. It seems too difficult to achieve a synthesis between the results that identify a "Maximum of ophelimity FOR a community in political economy" and results that allow sociology to explain why one "Maximum of utility FOR a community in sociology" occurs.

Pareto proposes three resolutions to this problem: 1) to totally reject economic science; 2) to abandon the experimental method that involves describing that which should be, and not that which is; and 3) to assume that the lack of concordance between theory and facts is due to the way the different disciplines analyze them.

In this last case, Pareto states that "that which we call laws, in experimental sciences are not necessary consequences: experimental science ignores the absolute; they are simply notions of uniformities which, observed in the past, allow us to foresee, more or less accurately, the future" (Pareto [1917] 1975, p. 68). Pareto is completely aware of the difficulty involved in synthesizing the results obtained in economics and sociology. In this sense, the behavior he assigns to social actors, based on the concepts he borrows from Machiavelli, is unlikely to be compatible with the results of his pure economics, which assumes that the agents are perfectly rational.

Regarding the first possibility, Pareto does not reject pure economics, and neither does he choose the second solution. Thus, we can question the relevance of retaining the results from pure economics, because either they are a first approximation compared to the laws of sociology and, in this case, we do not understand how they can be integrated into the results of this discipline; or they do not play a role in sociology, in which case they should be discarded, which Pareto refuses to do.

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