Vilfredo Pareto's Theory of Action: An Alternative to Behavioral Economics

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Abstract

In recent years the term behavioral economics has arisen in consequence of the growing effort of a significant set of economists to import psychological methods and findings into economics. This body of work issues strong challenges to the use economists have made of rationality in economics. Unfortunately, this recent work illustrates unnecessary and misguided creativity. Vilfredo Pareto explored the same analytical territory nearly a century ago, and to superior analytical effect. Pareto recognized that the substantive content of action depends on the environment in which action occurs. Some environments elicit logical action while other environments elicit non-logical action. Both types of action are species of rationality, only they are recognizably different. In this paper we explain why Pareto's approach to human action points toward a superior analytical agenda than does the present orientation of behavioral economics.

Key Words: Vilfredo Pareto, logical vs. non-logical action, rationality, behavioral economics

JEL Codes: B31; B41; D11

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I. Introduction

In recent years the term behavioral economics has arisen in consequence of the growing effort of a significant set of economists to import psychological methods and findings into economics. This body of work issues strong challenges to the use economists have made of rationality in economics. Unfortunately, this recent work illustrates unnecessary and misguided creativity. Vilfredo Pareto explored the same analytical territory nearly a century ago, and to superior analytical effect. Pareto recognized that the substantive content of action depends on the environment in which action occurs. Some environments elicit logical action while other environments elicit non-logical action. Both types of action are species of rationality, only they are recognizably different.

In this paper we explain why Pareto's approach to human action points toward a superior analytical agenda than does the present orientation of behavioral economics. Behavioral economics challenges the claim that perfect competition establishes Pareto efficient equilibriums. It does this by producing experimental evidence that seems to contradict ordinary postulates of rational choice. We start by summarizing some of these claims that purport to show that people lack the cognitive tools necessary to support perfect competition. We then explain that this approach inverts the relation between theory and action by making theory the judge of action rather than explaining action. In contrast to contemporary behavioral economics, Pareto recognized that the primary task of a theorist was to explain action. With respect to Arthur Lovejoy's distinction between this-worldly and other-worldly theorizing, Pareto was a this-worldly theorist while behavioral economics reflects an other-worldly orientation toward human action in society.[1] We follow this distinction by exploring how Pareto's distinction between logical and non-logical action creates a fruitful framework for an explanatory approach to social theory, in contrast to the

[1] Arthur O. Lovejoy, *The Great Chain of Being*, Cambridge, Harvard University Press, 1936.

hortatory approach to social criticism that stems from behavioral economics. In this respect, Pareto's approach to a theory of action bears a strong resemblance to Gerd Gigerenzer's emphasis on rationality not as calculation but as interaction between individuals and the various environments for action that they face.[2] In other words, Pareto pointed the way toward an open-ended theory of society, whereas the approach to action taken by contemporary behavioral economics replaces theory with historicism.

II. Behavioral Economics: A Brief Overview

Behavioral economics, according to Robert Shiller, "is really the application of methods from other social sciences – particularly psychology – to economics."[3] In this section, we present some common findings in behavioral economics with respect to the supposed critique of the Pareto efficiency of perfect competition that those critiques are presumed to create. An exhaustive summary of the voluminous literature on behavioral economics that has emerged since Kahneman and Tervsky's seminal paper on prospect theory is beyond the scope and purpose of this section.[4] Rather, what we wish to highlight is that, in the end, behavioral economics is dependent on and cannot escape the very same methodological assumptions and normative conclusions of the Pareto-efficiency of perfect competition, which it is presuming to critique.

Laibson and List state that "behavioral economics is a series of amendments to, not a rejection of, traditional economics,"[5] and that behavioral economics is meant to augment standard neoclassical analysis by adopting and refining the three core principles of economics: optimization,

[2] Gerd Gigerenzer, *Rationality for Mortals*, Oxford, Oxford University Press, 2008.
[3] Robert J. Shiller, *Behavioral Economics and Institutional Innovation*, «Southern Economic Journal», vol. LXXII, 2, 2005, p. 269.
[4] Daniel Kahneman and Amos Tervsky, *Prospect Theory: An Analysis of Decision under Risk*, «Econometrica», vol. XLVII, 2, pp. 263-291.
[5] David Laibson and John A. List, *Behavioral Economics in the Classroom: Principles of (Behavioral) Economics*, «The American Economics Review», vol. CV, 5, p. 385.

equilibrium, and empiricism.[6] Both behavioral economics and mainstream neoclassical theory take these principles as given methodological assumptions from which to derive normative conclusions upon which to judge the rational choice framework of economics. First, optimization is based on the model of *homo economicus*, an individual who perfectly maximizes a well-defined utility function. This implies that only economic ends, or monetary motives, enter the decision calculus, and that the decision makers are imbued with omniscience with respect to all the relevant costs and benefits to the decision. In other words, rather than regarding cost as the reciprocal of the choice of an individual decision-maker, human choice is defined out of the model and cost is regarded as *externally* independent of an individual's choice.[7] Second, equilibrium implies that there is a homogenous unity to individual rational behavior such that an aggregation of the behavior of individuals can be utilized to fashion perfect plan coordination and therefore construct perfectly competitive equilibrium. Third, rationality is treated as a hypothesis and not as quality of humanity. Therefore, the way in which to test the predictive power of economic theory "is to test directly the economic rationality of individuals isolated from interactive *experience* in social and economic institutions."[8]

It is upon these building blocks that the Pareto-efficiency of perfect competition is constructed and critiqued by mainstream and behavioral economists. An allocation of resources is said to be Pareto-efficient when it is impossible to make any individual better off without making another individual worse off. Moreover, a Pareto-efficient situation is one that eliminates from analytical attention all social interaction among individuals. In the Pareto-efficiency of perfect

[6] David Laibson and John A. List, *Behavioral Economics in the Classroom: Principles of (Behavioral) Economics*, «The American Economics Review», vol. CV, 5, p. 386.
[7] James M. Buchanan, *Cost and Choice*, Chicago, Markham, 1969.
[8] Vernon L. Smith, *Rational Choice: The Contrast Between Economics and Psychology*, «Journal of Political Economy», vol. XCIX, 4, 1991, pp. 877-897, p. 878.

competition, costs are independent of choice and serve as objectively measureable proxies for the subjectively held assessment of tradeoffs.[9] Although behavioral economics has presumed to critique the model of perfect competition for its lack of empirical relevance with the real world, it cannot replace the shortcomings of the motivational postulate used in the model of perfectly competition, *homo economicus*, without also abandoning the predictive ability of its own normative conclusions, namely that individuals can and ought to be "nudged" so that they approximate the conditions of Pareto-efficiency.[10]

The word *efficiency* implies the neoclassical notion of a static, Pareto-optimal allocation of "given" resources according to "given" technology and tastes. Corollary to this notion is that individuals are consistently maximizing a well-defined utility function.[11] This is essentially accomplished by purging human choice from the model, in which "choice" is predetermined by assigning objective payoffs to individuals as calculating automatons, unalloyed by non-economic behavioral traits. Although behavioral economics would object to this neoclassical rendition of the world as unrealistic, it adopts the same rational choice framework as a normative benchmark upon which to impose a situation on individuals "as if" an external observer presumes to know in

[9] Peter J. Boettke, *Living Economics: Yesterday, Today, and Tomorrow*, Oakland, The Independent Institute, 2012, p. 254.

[10] As Nathan Berg and Gerd Gigerenzer point out, the methodological shortcomings of both neoclassical and behavioral economics is a result of their "of their very partial commitments to empirical realism, indicated most clearly by a shared reliance on Friedman's as-if doctrine" (Nathan Berg and Gerd Gigerenzer, *As-If Behavioral Economics: Neoclassical Economics in Disguise?*, «History of Economic Ideas», vol. XVIII, 1, 2010, p. 134). This "as-if doctrine" is based on Milton Friedman's «The Methodology of Positive Economics», in which he refutes two claims about methodology in economics: 1) a hypothesis or theory in economics is acceptable only if its assumptions are realistic; and 2) the realism of the assumptions of an economic hypothesis or theory is distinct from the truth of its predictions. In other words, a theory can be tested by the realism of its assumptions independently of the accuracy of its predictions. For Friedman, 'the ultimate goal of a positive science is the development of a theory or a hypothesis that yields valid and meaningful predictions about phenomena not yet observed'. In other words, Friedman has an instrumental view of theory in economics, such that 'a theory is to be judged by its predictive power for the class of phenomena which it is intended to explain'. The validity of a hypothesis is determined in comparison of its predictions with experience. Therefore, a theory is simpler the less the initial knowledge needed to make the prediction and more fruitful the more precise its predictions. See Milton Friedman, *Essays in Positive Economics*, Chicago, University of Chicago Press, 1953, pp. 3-43.

[11] Gary S. Becker, *Irrational Behavior and Economic Theory*, «Journal of Political Economy», vol. LXX, 1, 1962, p.1.

advance a correct answer for that situation, much like the "Walrasian auctioneer" of general competitive equilibrium. Behavioral economists in this respect often speak of designing experiments so as to induce utility functions in their subjects. Having done this, the results of the experiment can be appraised with respect to how close they come to the induced utility functions. In any case, the experimenter adopts the position of an instructor in a class on logic or mathematics and grades the performances of the participants in the experiment based on the objective payoffs assigned to the subjects. The experiment, in other words, is not designed to learn something about people that wasn't previously known. Rather it is designed to grade people against some standard the experimenter has constructed. This analytical procedure is the same one that those economists use to posit a model of competitive equilibrium and then ask how closely reality fits that model.

The normative standard is not to use economics as a tool for understanding the institutional context in which actual decision-making processes take place, but rather as tool for social engineering so that individuals act as if they are maximizing what an external observer believes ought to be in their utility function, whether that entails, for example, adequate 401(k) savings for retirement[12] or making wise dietary choices.[13] Despite challenging the descriptive accuracy of rational choice, such as transitivity of preferences or expected utility theory, it has done so without challenging the normative significance of these formulations, which still presumes a neoclassical decision-making process based on constrained optimization of given ends and given means – given, that is, by the external observer.

Economist Mario Rizzo reveals the implications of studying human choice absent the purpose and meaning attached to such choices, particularly with respect to an experiment that

[12] Richard H. Thaler and Shlomo Benartzi, *Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving*, «Journal of Political Economy», vol. CXII, S1, pp. S164-S187.
[13] Ted O'Donoghue and Matthew Rabin, 2006, *Optimal sin taxes*, «Journal of Public Economics», vol. XC, 10-11, pp. 1825-1849.

purports to find intransitive preference orderings.[14] For example, an individual confronts three different-sized slices of the same cake and chooses the middle-sized slice. The experimenter then removes the large slice from the set of options, expecting the chooser to reaffirm the choice in the absence of what would seem to be an irrelevant alternative. The chooser, however, now selects the small slice. Without knowing the purpose behind the choice being made, it would seem to an external observer that the individual has violated the axiom of transivity. Choosing the middle-sized slice over the larger slice could be deemed rational on the basis of some kind of tradeoff between pleasure and calories. To remove the large slice from the set of options does nothing to affect the pleasure-calorie tradeoff, so should not affect the choice—if the behavioral economist's view of the situation is accurate.

The so-called problem here is not with the agent but with the behavioral economist defining what it means to behave rationally only on a single margin, namely that agent is only making a tradeoff between pleasure and calories. To infer that the agent did not choose the higher-value option is a *meaningless* statement: if an agent has selected what they perceive to be higher valued option, this is because it was their *intention* to do derive greater satisfaction from exercising that option. To say otherwise is not only a contradiction in terms, but also fails to take account of the agent's criteria of choice. One cannot identify an inconsistency of preferences without knowing the goals of the agents. The role of the economist, then, is to understand this intention or purpose. In the case at hand, a pleasure-calorie tradeoff may never have been in play. The relevant tradeoff might have been a pleasure-politeness tradeoff. To pick the largest slice available, in this context, could have been considered impolite by the chooser, and the chooser was intending to be polite.

[14] Mario J. Rizzo, *The Problem of Rationality: Austrian Economics between Classical Behaviorism and Behavioral Economics*, in *The Oxford Handbook of Austrian Economics*, eds. Peter J. Boettke and Christopher J. Coyne, Oxford, Oxford University Press, 2015, pp. 387-388.

Removing the largest slice was not removing an irrelevant alternative because the chooser possessed lexicographic preferences that precluded actions that were deemed impolite.

With regards to the previous discussion on studying action within the context of the chooser, Pareto wrote the following:

> Experience teaches us that to understand a situation it is best to isolate the elements A, B, C…and examine them one by one, that we may then bring them together again and so get the theory of the complex as a whole…But those who are unfamiliar with its methods grope blindly forward, shifting from A to B, from B to C, then every so often turning back, mixing things up, taking refuge in words, thinking of B while studying A, and of something else while studying B.[15]

Despite the supposed critique individual rationality and system-level efficiency of perfectly competitive equilibrium, behavioral economics has only succeeded in doing what the former has done: it has purged both the mind of the individual and the social context from which choices emerge. Instead of injecting empirical realism into the motivational postulate of *homo economicus*, namely by understanding the purposes and plans of one's actions, behavioral economists have only reinforced the methodological goal of prediction, utilized by neoclassical economists, to model an actor "as if" they choose based on objective payoffs, defined by given means, to maximize a given end, in this case "given" by the behavioral economist. This close-ended model of rational choice need not be followed; however, this model drives the contemporary discussion of behavioral economics, renewed calls for paternalism, and the entire literature regarding nudges.

[15] Vilfredo Pareto, Vilfredo, Pareto, *The Mind and Society: A Treatise on General Sociology*, *Volume One: Non-Logical Action*, New York: Dover Publications, 1963, p. 21.

III. How Does Social Theory relate to Human Action?

"Scientific laws are for us," according to Pareto, "nothing more than experimental uniformities. From that point of view, there is not the slightest difference between the laws of political economy or sociology."[16] Unlike the natural sciences, social theory employs what Pareto referred to as the "logico-experimental" method to understand the universal quality of human action by untangling it from experimental uniformities observed in reality. This method seeks to uncover experimental uniformities, or logical relations between historical phenomena, by presuming that individuals seek to be effective in their actions by using means appropriate to fulfill a particular end. Unlike behavioral economics, which employs economic theory to *predict* the empirical content of human behavior according to conformity with utility maximization, Pareto utilized social theory to render historical phenomena intelligible. That is, the logico-experimental method provides a set of theoretical lenses with which to understand social phenomena from the viewpoint of the purposes and plans that agents themselves attach to their actions in the pursuit of an end.

The logico-experimental method differs sharply from the method of behavioral economics. The social theorist using the logico-experimental method does not to judge the subject being observed. Rather, by grounding all human action according to a logical, means-ends relationship, the social theorist attempts to learn how individuals appraise alternative means to fulfill their chosen ends according to the social context within which they operate. However, in behavioral economics, when an outside observer of human behavior assesses some particular action, the behavioral economist's evaluation is based on their own value judgement of the end being pursued or narrowly defining the actor's utility function.

[16] Vilfredo, Pareto, *The Mind and Society: A Treatise on General Sociology, Volume One: Non-Logical Action,* New York: Dover Publications, 1963, p. 52.

The orientation of each method affects that way in which social theory relates to human action. We can contrast the logico-experimental method with the method of behavioral economics by their orientation towards rationality. In the logico-experimental method, the rationality principle is the starting-point of analysis from which to explain social phenomena. The formal necessity of individuals employing means to ends is given substantive content by observing its manifestation emerging within alternative social-institutional contexts. In the method of behavioral economics, however, the rationality principle is an end-point of analysis, from which the economist induces the behavioral assumptions conducive to the predicted outcome of analysis. The result of the latter is to convert the rationality principle, or what F.A. Hayek refers to as the pure logic of choice, into an abstract science of behavior, purging the action of its substantive content. This is accomplished by replacing the subjective assessment of means with objective payoffs given by the observing behavioral economist. In effect, generality in explanation is replaced by predictability.[17] Pareto would have emphatically rejected this outcome, for his purpose was "to discover theories that picture facts of experience and observation."[18]

How does this orientation affect the conclusions drawn by social theorists? Suppose, for example, individuals behave in such a way that deviates from what the economist had expected. For the behavioral economist, the natural conclusion is that individuals are "irrational," given the objective payoffs assigned to the subject. This conclusion fails to appreciate that costs only exist within the mind of the decision-maker and can be only expressed through choice. Moreover, by taking opportunity costs as objective and man as *homo economicus* violates the purpose of social theory, which is to understand the purpose and meaning attached to the actions of individuals, not

[17] James M. Buchanan, *The Collected Works of James M. Buchanan, Vol 12: Economic Inquiry and Its Logic*, Indianapolis, Liberty Fund, p. 9.
[18] Vilfredo, Pareto, *The Mind and Society: A Treatise on General Sociology, Volume One: Non-Logical Action,* New York: Dover Publications, 1963, p. 38.

to impute them. However, from a Paretian perspective, according to the logico-experimental method, the economist will conclude that they have not fully captured the subjective assessments of the means employed by the individual given their situation.

So long as the task of social theory is to explain human action, the assessment of whether the means applied are appropriate for the fulfillment of a particular end can be agreed upon by the subject and observing social theorist without contradicting each other. However, if the task of social theory is prediction, rather than proceeding as a theory of social interaction, economics, and particularly behavioral economics, will manifest itself solely as a theory of "choice." In this latter case, "choice" as defined by the external observer will determine whether or not economic outcomes will conform to Pareto-efficiency. However, Pareto saw social and economic equilibrium as a method of contrast to highlight the interdependencies and experimental regularities inherent to human action, not as a normative benchmark against which to judge human behavior as efficient or not.

IV. Other-worldly and This-worldly Theorizing: Vilfredo Pareto meets Arthur Lovejoy

Arthur Lovejoy[19] distinguished between what he described as other-worldly and this-worldly theorists. As with most such dualities, this one too can be subjected to gradations that take into account differences in nuance among theorists. All the same, the idea between Lovejoy's distinction is clear, and it is apparent in the contrast between Pareto's theory of human action and the thinking of contemporary behavioral economists. For this-worldly theorists, analytical attention is focused on the explanation of observed patterns of social life. For other-worldly

[19] Arthur O. Lovejoy, *The Great Chain of Being*, Cambridge, Harvard University Press, 1936.

theorists, analytical attention entails a comparison of what is with what might be. For other-worldly theorists, the world of actual experience is a pale reflection of what could be realized within a better arranged society.

For other-worldly theorists, the world of practice generates tradition, but tradition can be improved through the application of expertise guided by theorists. In contrast, for this-worldly theorists, people don't need theorists to conduct themselves well. Interaction among practitioners is sufficient, especially in light of the ability of practice to generate institutional arrangements that encapsulates the wisdom that emerges through practice.

For Pareto, the task of theory was to understand the world of practice without there being any presumption that this world was inferior to some alternative world that could be attained through the application of expertise. Practice precedes theory. Theory follows practice as theorists think about the underlying and unseen forces and principles at work in bringing coherence to the world of practice. Theorists observe and explain practice; they don't create practice or improve it.

This logical relation between practice and theory doesn't mean that a theorist can't be helpful to a practitioner. For instance, there is no reason why an accountant could not suggest to a business owner how some types of accounting information might be used to evaluate the performance of associate managers. Whether or not the accountant develops such a suggestion, the business person will still face of task of evaluating the performance of associates. The accountant doesn't act prior to the business person; it is the task of the business person that induces the accountant to think of how accounting information might prove helpful to the business person.

Furthermore, it is the business person and not the accountant who is the judge of the value of that accounting information. The accountant is clearly an agent, with the business person being the principal. The accountant is in no reasonable or plausible position to describe the business

person as being inept or irrational just because the business person does not follow the accountant's advice. Should the business person act contrary to the accountant's model, the logic of the relationship between the business person and the accountant would necessarily hold that the accountant is wrong and the business person right.

In this setting, there is no external standard of truth. The business person does not follow the accountant's advice. This is our primitive observation. From that observation, what can we conclude? If we are looking for some external standard of truth, we can conclude nothing because there is no such standard of truth. In judging between conflicting judgments, there are two possible approaches. One approach is externalist. This approach fabricates some external point of judgment when there is truly no external standard of truth. This approach assigns the judgment to some third party, of which there are an indefinitely large number. The use of judges and juries are common methods for doing this. So is taking resort to an election. There are, moreover, an indefinitely large number of ways judges, juries, and electorates can be constituted, with it being reasonable to suppose that different methods will yield different judgments. This is the method of public ordering.

In contrast, the internalist approach is the method of private ordering. The accountant thinks the business person is ignoring valuable knowledge that if used will increase the value of the business. Whether or not to use that knowledge is the province of the business person, for in his capacity as owner he will bear the value consequences of his response to the accountant's suggestion.

To continue the example a bit further in Coase-like fashion, suppose the owner values the business at $10 million while the accountant thinks that following his suggestion would increase the value of the business to $12 million. In this objective rendering of the situation, the accountant

could act on his belief by offering to buy the business at some amount between $10- and $12 million. To be sure, such numbers are not to be found floating about, but rather pertain to states of mind. Still, if the accountant thinks his suggestion would generate some significant increase in the value of the business, he could act on that belief by trying to buy the business.

For Pareto, there is no one correct way the business person should respond to the accountant. It is up to the accountant to provide advice that us useful to the business person, and that is the end of the matter. The accountant has no claim to pronounce a verdict of bad judgment on the business person. Should the accountant think the business person is conducting his business poorly, he can offer to buy the business or to start a competing business. In this scheme of analysis, Pareto exhibits the qualities of a this-worldly thinker.

In sharp contrast, contemporary behavioral economics reflects the other-worldly orientation. The theorist starts from the presumption that the existing state of practice is wrong-headed in significant respects, and that expertise can be brought to bear on the task of moving practice to a better state. In a dispute between the business person and the accountant, the behavioral economist would seem to side with the theoretical expert over the practical person. From the perspective of behavioral economics, there is no recognition of how social configurations emerge out of human interaction without being planned by experts.

V. Pareto's Theory of Action and the Problem of Social Theory

Pareto's concern to develop an explanatory theory of society started with observations leading to his dichotomy between logical and non-logical action. Rationality was always present as a universal quality, but the manner in which such action manifested itself was contingent to the

environment within which individuals were acting. Vilfredo Pareto[20] distinguished between logical and non-logical action, and Pareto's distinction has great significance for political economy. However, this distinction has nothing to do with any distinction between rationality and irrationality. Pareto thought all action was rational, and in this respect his orientation was similar to Thomas Szasz[21] and his claim that mental illness is largely a piece of mythology in that it applies a medical terminology to what are really moral issues. Someone who doesn't feel like going to work could be called lazy or labeled a malingerer. Alternatively, that person could be described as suffering from some form of stress disorder. The latter option allows the person to feel better about himself while also perhaps qualifying for some form of welfare relief and also payment for the medical diagnostician. For Pareto, all action was rational, but there were different environments in which such action occurred. The substance of rational action varied across environments even though the form of rationality was invariant to environment, which is similar to Gerd Gigerenzer's treatment of rationality as entailing a relationship between an actor and an environment. Moreover, rational action implies competition over scarce resources, and just as in the case of rational action, competition will manifest differently across market and non-market settings.

Pareto accepted this quality of action as being rational from the subject's point of view. Pareto's distinction, however, is formulated from the objective point of view. This is the point of view of an observer who is classifying actions into categories. In this respect, Pareto argued that actions mostly fell into one of two categories: logical and non-logical action. Furthermore, it was generally apparent into which category an action fell. All action has the same formal structure: a person acts in response to a desire to achieve some objective by effectively applying means to that

[20] Vilfredo, Pareto, *The Mind and Society: A Treatise on General Sociology*, New York: Dover Publications, 1963, pp. 75-230.
[21] Thomas Szasz, *The Myth of Mental Illness: Foundations for a Theory of Personal Conduct*, New York, Harper & Row, 1961.

objective. In some cases there is a direct connection between action and objective that can be rendered sensible to an external observer. In other cases there is no such connection that an external observer could see, and the action would be non-logical. One quality of humans is the desire and the ability to give a logical sounding account of all action. These, Pareto described as derivations, though these are better known today as rationalizations.

For the most part, logical action is the domain of markets while non-logical action is the domain of politics, though this mapping from action to domain is not exact. An example of a logical action is the purchase of a sandwich with the objective of satiating one's hunger. There is a direct link between the action and the objective at which the action aims. In this case, the action being taken is the purchase of the sandwich. After examining the different selections, the buyer makes a choice and fulfills his objective, satisfying his hunger. Moreover, sandwiches carry prices, and these prices facilitate the appraisal of tradeoffs between differences in qualities among the sandwiches and differences in prices. Within this kind of environment for action, it is plausible to claim that action exhibits the quality of a logical appraisal of options that can also be tested through the logico-experimental method. The speaker will always assert that he or she has made a logical or rational choice. Pareto's logico-experimental approach asks whether an external observer would reach the same judgment of a logical appraisal among options where that appraisal can be tested by experience or experiment. In market settings this is generally the case, but often it is not in political settings, where market prices are absent to guide one's action towards an objective.

Non-logical action denotes actions for which there is no direct connection between action and outcome. Many of these environments for action are those where prices don't exist, which renders impossible the appraisal of tradeoffs. One recognizable set of human actions involves making charitable contributions to various organizations. Whether one buys a sandwich or

contributes to a charity, the form of the interaction is the same: there is an exchange of money for service in both cases. With the charitable organization, however, the link between action and consequence is indirect, perhaps vague, and is non-logical in any case.[22] In the absence of prices, there is no logical basis for the appraisal of options. A buyer of an sandwich has a reasonable basis for deciding whether a higher-quality sandwich is worth the higher price. A donor to a charitable organization cannot make such a comparison, both because prices are absent and because the services offered are more on the order of credence goods than inspection goods.

Vendors who recognize that they operate within an environment where action is predominately non-logical will modify their strategies to fit that environment. Pareto recognized that one feature of human nature was a desire people had to feel good about their actions. In settings dominated by logical action, that feel-good quality arose as a consequence of being satisfied with market choices. In settings dominated by nonlogical action, the direct link between choice and consequence vanishes, which takes with it the ability to feel good about actions. This situation is not consistent with replication of such actions which, in turn, means that the survival prospects of vendors would be weak without some compensating action. One form of compensating action is ideological in character, and entails the purveyance of images that allow the actor to feel good about his or her actions despite the inability logically to adopt that feel-good posture.[23] In this respect, the ability of symbols to evoke strong emotions and actions should be kept in mind.

The entitlements of the welfare state can be summarized by Herbert Hoover's aphorism: "a chicken in every pot." While this is a rather small entitlement, it would be easy enough to multiply the level of the guarantee. In his address on the battlefield at Gettysburg, Abraham Lincoln recognized that the original constitutional document entitled Americans to life, liberty,

[22] Gordon Tullock, *The Charity of the Uncharitable*, «Economic Inquiry», vol. IX, 4, 1971, pp. 379-392.
[23] Kenneth E. Boulding, *The Image: Knowledge in Life and Society*, Ann Arbor, University of Michigan Press, 1956.

and the pursuit of happiness, and nothing more. Chickens in pots and other entitlements came later. Perhaps the most significant quality of the theory of economic equilibrium is its explanation of the interconnected quality of all economic activity within society. Whatever statement that is made in the context of a product market implies offsetting statements about the factor market that would make sensible statements about the product market. Therefore, an entitlement program that speaks of a chicken in every pot is equivalent to a servile labor program that speaks of people working in chicken farms.

Logical action would seek to determine whether the chicken was worthwhile in light of the labor required to work on the chicken farm. Should people apply the same logic to the chicken as they applied to the sandwich, they would surely reject the chicken. But sentiment will dominate reason in this instance because the environment for action does not offer a direct link between action and consequence, unlike with the sandwich. This environment is still one where people want to feel good about themselves, as is universally the case. Political competition will accommodate that desire by avoiding references to forced labor in extolling entitlement programs. Such programs, moreover, will be conveyed through images of people being deserving of what they receive, for this would fit comfortably with natural sentiments. Widespread references to social contracts and similar images exemplify the creation of images that gives a veneer of rationality as if the program were a product of logical choice. In this there are lessons to be learned from the titling of legislative acts. They all apply a veneer of rationality to what is in no way a logical action, as illustrated by what was named “The Affordable Care Act” in the US. The title sounds universally beneficial, but it is really a program that subsidizes some at the expense of others, and leads to increased total spending in the process.

VI. Action, Reason, and Environments: Pareto's Alternative to Behavioral Economics

Behavioral economics starts from some standard models of optimizing choice in equilibrium economics, and then conducts experiments to determine whether the results of those experiments conform to the optimizing models. What generates interest in behavioral economics is recognition that in many cases the results of the experiments do not mirror the predictions of the optimizing theory. This clash between theory and experiment creates one of those analytical forks in the road. One branch of that fork, the behavioral branch, claims that the experiments vitiate the presumptions of optimizing choices as a universal quality of economizing action. To say this is not to deny that some people do make optimizing choices; it is only to assert that such optimization is not a universal quality of economizing action.

Consider just two among the large number of what are described as behavioral anomalies. First, outcomes from ultimatum games are often used to reject claims that people are utility maximizers. In this game, a Proposer is given a sum of money, of which he can offer some to a Responder and keep the rest for himself—provided that Responder accepts Proposer's offer. If Responder rejects Proposer's offer, no one gets anything. Simple arithmetic might seem to suggest that Responder would accept any positive offer because it is more than zero. That arithmetic would similarly suggest that Proposer would offer some small amount, figuring that Responder would accept it rather than come away with nothing. The actual experiments, however, show that something in the vicinity of an even division results from these games, and with offers under 20 percent being routinely rejected. In these games, nothing like a 99-1 split is observed, leading to suggestions that the standard presumption of rational action is unwarranted by economic theorists.

Second, experimental results often yield what economists describe as time inconsistency, which means that people often make inconsistent choices due simply to the timing involved in

making those choices. In facing a choice between receiving $100 now or receiving $200 in one year, many people opt for receiving $100 now. Should that choice be delayed by, say, five years, many people seem to opt for the more distant choice. Yet the two choice settings are identical, only the second setting is delayed five years. In contrast, the standard economic theory of rational choice typically works with exponential discounting where the present value of future amounts declines steadily, which means that a one-year delay has the same impact whether the point of valuation occurs now or in five years.

Similar to what we noted in Section 3, the experimental work in behavioral economics falls within the other-worldly mode of theorizing. The present world is inhabited by ordinary people, while experts seek to develop paths from the present world to a superior world. The economist as scientist is not simply an observer and explainer of the unfolding reality that people generate through their interactions, but occupies a particularly significant position in traversing a path toward societal betterment.

Questions similar to those we raised in Section 3 regarding the relationship between the business person and the account arise with respect to behavioral experiments in economics. In the ultimatum games, for instance, does the strong aversion to anything even remotely approaching a 99-1 split indicate that something is wrong with claims that economists make on behalf of rational individual action? The answer to this question is surely negative. There is no basis for some judge or experimenter to claim that something like a 99-1 split is the "right" response to the ultimatum setting. A theorist who wanted to do so could always construct a solipsistic utility function as offering a standard of rational action, and then claim that the results of the experiment contradicted the presumption of rational action.

In actuality, such an outcome would show only that the experimenter's or judge's prediction about human action in the ultimatum setting was wrong. When faced with such disconfirming evidence, a serious theorist would rethink his or her theories to determine where those theories went wrong. So what do we make of the observation that such splits are not observed, and even more that splits in the vicinity of 50-50 are often observed? This observation clearly denies the substantive validity of notions of solipsistic individuals who can be reasonably described in terms of such utility functions. Under Pareto's alternative approach, the Proposers would be regarded as rational and as knowing what they are doing, and the theorist would face the challenge of giving specific content to the formal postulate of rational action. This observation clearly denies the substantive validity of not6ions of solipsistic individuals who can be reasonably described in terms of such utility functions.

But it does not deny the presumption that people form goals and objectives, and seek to attain those objectives through the effective deployment of means at their disposal. The other-worldly theorist would seek to use the experimental finding as an entering wedge into a program of societal improvement that would, if effective, generate experimental results that mirrored the theoretical implications of solipsistic utility functions. In contrast, the this-worldly theorist would seek to add substantive content to the formal framework of utility theory so as to generate something approaching the experimental results. In other words, the this-worldly theorist would ask just what these experimental results tell us about the characters and orientations of the people who participated in those experiments.

For instance, the experiments might reasonably be interpreted as showing that individuals acting inside a society are different from how a Robinson Crusoe might be imagined acting alone on his island. They might reasonably be interpreted as suggesting that part of living together in

society is the formation of moral judgments and sentiments that induce judgments of respect among participants in mutual endeavors. Whether that judgment extends to non-participants is a different matter. A set of participants in a stag hunt, for instance, might agree with a roughly equal distribution of the fruit of their efforts, while making some allowance for recognized differences in efforts, dangers, and the like. At the same time, however, those participants might object violently to political edicts that would re-distribute those fruits to non-participants.

In this regard, Pareto's distinction between logical and non-logical action, which we examined in Section 4, is of especial significance for economic theory. Pareto's theory of action eschewed the utilitarian point of departure common to most economists, and started instead from the observation of action. Pareto's theory of action had a triangular quality. First, and most significantly, there was action, which pertains to what people actually did. Second, there were statements people advanced regarding their intentions, which Pareto described as derivations. Third, there were the deep-rooted and perhaps invariant motives which drove action, and which Pareto described as residues, and which Pareto attempted to enumerate in great detail.

Similar to Gerd Gigerenzer's treatment of rationality[24] as being a conjunction of calculation and environment, in contrast to the standard purely calculational notion of rationality, Pareto treated the character of action as depending on the environment in which action occurred. In this respect, Pareto distinguished between rational and non-rational action. Pareto further distinguished between those environments that supported logical action and those that elicited non-logical forms of action instead. This distinction is of vital significance for distinguishing between political and economic phenomena in a theory of political economy.

[24] Gerd Gigerenzer, *Rationality for Mortals*, Oxford, Oxford University Press, 2008.

By logical action, Pareto referred to action environments that were suitable for what Pareto described as the logico-experimental method. By this method, Pareto meant a variation on typical ideas about the scientific testing of hypotheses. Two vendors claim that their line of shoes provides superior customer value to the competing line. These claims reflect the pattern of testing hypotheses. Each vendor thinks he has created a package of product characteristics that will serve consumer desires better than the competing product. That claim or hypothesis will be accepted or rejected through the buying choices of consumers.

Similarly, customers compare shoes and prices, and form an image or hypothesis about which brand of shoe better serves their interests as buyers of shoes. Consumers are operating on their personal accounts, so there is good reason to think that their choices will reflect their reasonable judgments about the ability of different packages of characteristics to fulfill their desires regarding products. Producers likewise operate on their personal accounts, so there is equally good reason to think that producers will take reasonable care to design products with characteristics that appeal to consumers. This is not to deny the possibility of making mistakes, either by consumers or by producers. It is only to identify a particular environment within which action occurs.

There are other, non-logical environments of action, and these will have different social qualities. For Pareto, politics and religion were the primary environments of non-logical action. For non-logical environments, consumers or voters cannot deploy the logico-experimental method to test vendor claims. A politician claims that his economic program will increase the rate of growth. That claim cannot be tested through consumer experience. Politicians, moreover, know that their claims can’t be tested through experience. The claims of candidates are not tested through

experience but rather are tested through the abilities of associated ideological claims and personal charisma to resonate with voters.

In this action environment, people will support the candidate who most strongly elicits positive sentiments. Different people can support different candidates, not because of different readings of experimental results but because of different sympathetic reactions to candidates and their ideologies. Pareto also noted that people desire to feel good about themselves and their actions, which require that they offer sensible-sounding derivations for their actions within non-logical environments. This setting, in turn, means that political statements have to provide voters with derivations that they can use in explaining their actions to friends and associates. In this respect there is a connection between the two types of action and different efforts to explain the existence of God. Most such efforts reflect a version of Pascal's wager, and seek to use logic to force people to conclude that they should acquiesce in a belief in God. This is the approach of logical action, with an effort made to construct a logical chain that leads to the desired conclusion. But does it lead there? The alternative, which has the same structure as Pareto's non-logical action, is Anselm's approach summarized by *fides quaerens intellectum* (faith seeking understanding), and with Karl Barth[25] exploring Anselm's approach to this topic. This alternative starts from the fact of belief and explores the contours of that belief. With respect to political action within Pareto's scheme, a voter starts with supporting one candidate or another, and then seeks to advance what seems to be supporting logic even though there is no way that those chains of logic can be tested in the logico-experimental manner.

[25] Karl Barth, *Anselm: Fides Quaerens Intellectum*, Richmond, John Knowx Press, 1960.

VII. Pareto and the Challenge of Social Theory: A Concluding Peroration

Pareto's theory of action and its distinction between logical and non-logical environments for action leads into a social theory that diverges significantly from the standard treatment of social theory within the framework of neoclassical economics and general equilibrium. The neo-classical framework reasons in terms of systemic equilibrium, as illustrated by smooth functions and twice-differentiable surfaces. In contrast, Pareto's scheme of thought leads in a tectonic direction where there are conflicts where logical and non-logical action collide. Smooth functions give way to non-integral geometries.

Pareto's good friend Maffeo Pantaleoni[26] published a two-part essay that described collisions between systems of market pricing and systems of political pricing. Actually, it wasn't the systems that collided but the enterprises that acted inside those systems. Pantaleoni conceptualized the system of market pricing according to the convention of price equal marginal cost that was in play at the time. The system of political pricing was erected parasitically upon the system of market pricing. Political enterprises don't derive revenue directly from selling services to clients. To the contrary, they derive their revenue by making parasitical attachment to market enterprises. The exact nature of that attachment depends on the type of tax used to generate revenue for the political pricing system. Pantaleoni worked with a flat tax on all income, which had the feature that Buchanan[27] elaborated, namely, that income and substitution effects offset one another under unitary elasticity conditions. A doubling of income would induce a person to demand twice

[26] Maffeo Pantaleoni, *Considerazioni sulle proprietá di un sistema di prezzi politici (Comunicazione fatta al Congresso dell'Associazione per il progresso delle scienze in Napoli) PARTE I. Analisi dei prezzi politici*, «Giornale degli Economisti e Rivista di Statistica», vol. XLII, 1, 1911, pp. 9-29.
Maffeo Pantaleoni and Enrico Barone, *Considerazioni sulle proprietá di un sistema di prezzi politici (Comunicazione fatta al Congresso dell'Associazione per il progresso delle scienze in Napoli): PARTE II. Della impossibilità di un sistema generale di prezzi politici e del carattere parassitario dei mercati aventi prezzi politici*, «Giornale degli Economisti e Rivista di Statistica», vol. XLII, 2, 1911, pp. 114-138.
[27] James M. Buchanan, *Fiscal institutions and Efficiency in Collective Outlay*, «The American Economic Review», vol. LIV, 3, 1964, pp. 227-235.

the quantity; however, a doubling of income would also double the tax-price, reducing the quantity demanded in half.

Social tectonics comes into play within this framework because there is no equilibrium consistent with survival with both types of enterprise and pricing system. In Pantaleoni's two-bazaar model, people who would pay high tax-prices in the political bazaar would take their business to the market bazaar. People who would have to pay market prices in the market bazaar would take their business to the political bazaar. As this shift of custom took place, support for the political bazaar would dwindle. To prevent this erosion of support, the political bazaar would have to impose auxiliary constraints on the market bazaar, as in forcing users of the market bazaar to pay for items in the political bazaar even if they don't use those items. For instance, parents who send their children to private schools or educate them at home continue to pay for public schools through taxation.

Pareto's theoretical schema operated in terms of continual change, even though he spoke of economic and social equilibrium as if the two types of equilibrium were separate. But this was simply a stylistic matter that called upon the analytical conventions of the time. His political theory emphasized the continual contestation among political figures for power, using tools of ideological articulation as ammunition within this intensely competitive process. Pareto as a social theorist has much value to add to contemporary social science, with Wagner[28] and Patrick and Wagner[29] serving as pointers toward what could be called Paretian political economy and social theory. Pareto calls us to recognize the ubiquity of economizing action while also recognizing that such

[28] Richard E. Wagner, *Politics as a Peculiar Business: Insights from a Theory of Entangled Political Economy*, Northampton: Edward Elgar, 2016.
[29] Megan Patrick and Richard E. Wagner, *From mixed economy to entangled political economy: a Paretian social-theoretic orientation,* «Public Choice», vol. CLXIV, 1-2, 2015, pp. 103-116.

action manifests itself differently across different action environments. What results is recognition that equilibrium can be a reasonable and useful notion to apply to individual action while also recognizing that interaction among economizing individuals across different action environments can generate continual societal evolution.

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