

The Socionomic Theory of Finance and the Institution of Social Mood: Pareto and the Sociology of Instinct and Rationalization

Wayne D. Parker
Socionomics Foundation
Gainesville, Georgia USA
and
Emory University School of Medicine
Atlanta, Georgia USA

Robert R. Prechter, Jr.
Socionomics Institute
Gainesville, Georgia USA

Abstract

Socionomics is a theory of human social behavior describing the causal relationship between social mood and social action. In finance theory, socionomics offers a new heterodox alternative to neoclassicism. The main principles of socionomics are that in human, self-organized complex systems, the following statements apply: 1) Shared unconscious impulses to herd in contexts of uncertainty lead to the emergence of mass psychological dynamics that manifest as social mood trends; 2) These social mood trends conform to hierarchical fractal patterns that take a repetitive, self-affine form and are therefore probabilistically predictable; 3) These patterns of aggregate behavior are form-determined due to endogenous processes rather than mechanistically determined by exogenous causes; and 4) These social mood trends determine the character of social actions and are their underlying cause, both in financial markets and in other domains.

Socionomics posits that because contextual differences between economics and finance evoke different behavioral dynamics, the law of supply and demand, which is central to economics, is irrelevant in finance. In finance, uncertainty about valuations by other homogeneous agents serves as the context for unconscious, non-rational herding, which follows endogenously regulated fluctuations in social mood that in turn determine financial fluctuations.

Veblen distinguishes between instincts, which are directed toward concrete ends, and habits, which are the flexible means by which one may reach such ends. One may view the concept of social mood in socionomics as a new type of unconscious social institution or affective habit, which has evolved to adapt to the context of other agents' uncertain social behavior. Socionomic theory, with its contextualist approach, posits that one of humanity's central purposes is embodied in the evolved instinct for herding in particular social contexts. Social mood may be a bridge between instinct and habit, between

affective predisposition and context-specific cognition and action. Along with Hodgson, socionomics sees instinct as a bridge between biology and the social sciences that enables an evolutionary explanation of human social behavior (see also Cordes, 2005).

Aspects of socionomic theory echo Pareto's little-known sociological theory of residues and derivations. This paper explores similar ideas in socionomic theory about the relationship between unconscious instincts, mediated by the limbic system, and rationalizations for the resulting social behavior, which are cortically mediated. Pareto's postulation of an innate human instinct toward "sociability" is related to the socionomic conceptualization of a herding impulse (Pareto called such instincts "residues"), while his concept of mental "derivations," the methods by which people justify their behavior, is related to socionomic theory regarding the role of rationalization in financial behavior. The role played by instinct and rationalization in the socionomic model of endogenous causality in an aggregate system of homogeneous agents differs both from the neoclassical theory of finance and from models of herding from other disciplines that invoke an assumption of heterogeneous agents and/or exogenous causality.

Introduction

Vilfredo Pareto (1916/1935) was a brilliant economic and sociological theorist. Best known for his work in creating and refining aspects of equilibrium theory in economics, and for his economic concept of the "Pareto optimum," his later prolific work in sociological theory is all too often unknown or neglected. Ironically, some of the reasons for the relative neglect of Pareto's sociological work are themselves what Pareto would call "derivations" – nonlogical biases that even scientists have, disguised with a "varnish of logic," as he would say. One may say that Pareto was the first to do for sociological behavior what Freud (1900/1996) did for intimate and emotional behavior: he lay bare its roots in unconscious motivations. Academics have neglected his theory in the past century due to several nonlogical factors:

- 1) After the publication of his sociological theory, some critics linked Pareto's name to fascism. Mussolini had apparently attended some of Pareto's sociological lectures in Lausanne, Switzerland, was greatly impressed, and used Pareto's theories to rationalize his brutal policies, so Pareto was branded a "fascist." There is no evidence that Pareto lent his support to Mussolini, and we do know that Pareto declined Mussolini's offer of a position in his government. Many later reviewers of this controversy have called the charge "poppycock," and their assessment has had no reputable refutation, but this slander led many scientists to ignore Pareto's theory.
- 2) There is a natural human discomfort at hearing someone attribute people's behavior to factors beyond their conscious control and awareness, and many have felt this discomfort upon reading Pareto. Freud's theory about the nature of the unconscious mind and its motivation for a wide range of behaviors aroused the same discomfort and almost universal rejection initially, until its later application was found to be useful.

- 3) Readers have a certain discomfort with the complexity of Pareto's theory and the lack of the statistical tools required to make practical use of his concept of "mutual interdependencies" among various causal factors. Such reaction is understandable, even if not a logical reason to reject the theory as a whole.
- 4) Many have found his theory to be rather alienating to read, due to both its occasionally sarcastic style and the depressingly pessimistic implications it has for the future of society. This is a stylistic or emotional objection.

There are other reasons for the neglect of Pareto's sociology that may be entirely logical:

- 1) Many have found his theory to be extremely and needlessly complex and difficult to read and understand.
- 2) His theory contains some internal contradictions and theoretical inconsistencies (more about them later).

Why, then, should we read Pareto's sociology? What does it have to offer us? It has tremendous heuristic value, both as a precursor of modern systems theory and as an incisive social critique by a well-read theoretical gadfly. It prompts the reader to challenge his assumptions about the nature of causality, to reexamine the motivations for a wide range of human social behavior he may not have previously considered, and to evaluate more critically the myriad theories that Pareto takes insightfully to task for their nonlogical elements.

More relevant for our purposes, Pareto is an early forerunner, in at least several ways, of Prechter's socionomic theory. This paper attempts to sketch the primary similarities and differences between socionomics and Pareto's sociological theory, with the goals of elucidating both theories and offering evidence that socionomics offers many advances relative to Pareto's own aim of fashioning a comprehensive sociology based on scientific principles. While no one had achieved a more comprehensive sociological theory than Pareto's at the time of its publication, we argue that Prechter's socionomic theory both delivers on the failed promise of many aspects of Pareto's sociology and provides a scientific basis for a sociology for the new century. While both Prechter and Pareto see somewhat different principles operating in economics than in sociology, heterodox economists interested in interdisciplinary approaches will welcome the more unified orientation to the social sciences in general that one may glean from both of these theories.

Both Prechter and Pareto offer a heterodox theory relevant to economics, sociology and political science (among other social sciences). Both theorists disavow rational choice theory in sociological matters; both demonstrate the importance of nonrational and unconscious motivations for social behavior; and both offer nontraditional models of causality. Despite their similarities, however, there are a number of ways in which socionomic theory offers heterodox economics and sociology a significant improvement over Pareto's sociology:

- 1) Socionomics' model of herding among homogeneous agents explains many aspects of human social behavior that Pareto sought to understand (such as governmental regime changes) without invoking static ideas about class differences or personality differences among the people in a society. Socionomics can thus offer an explanation for some areas of social behavior that is more convincing than Pareto's theory, which relies at times either on a questionable dynamic interaction between the truth-value and the utility-value of ideas, or on immutable class differences in societies.
- 2) Socionomics offers a coherent contextualist theory of individual agency, rooted in neurophysiology in a logically consistent manner; Pareto's theory contains hints of a voluntaristic theory of agency but has internal contradictions due to a reliance on mechanistic assumptions about the nature of man.
- 3) Socionomics offers an evolutionary theory that incorporates aspects of instinct psychology in a manner that resolves conflicts in dichotomies that have previously represented great theoretical difficulty to social theorists: the nature/nurture dichotomy and the structure/agency dichotomy. Pareto's attempt to deal with these issues is less successful: (a) his allegiance to a mechanistic metatheory predisposes him to treat structure in society reductionistically, as an epiphenomenon, rather than to integrate the dynamics of agency and structure; and (b) this same allegiance predisposes him to struggle unsuccessfully to integrate an ad hoc lists of instincts (nature) with a mechanistic view of constraining forces in society (nurture). While his concept of "mutual interdependencies" among various causal factors does prefigure more sophisticated versions of later systems theory, his new model of causality is not fully developed. In contrast, socionomics' more thorough integration of contextualism at the individual level and organicism at the aggregate level of society offers an integration of the challenging nature/nurture and agency/structure dichotomies in a manner that has both internal theoretical consistency and a foundation in empirical data, with evidence in sociological and economic data to support its claims about societal structure and evidence in neurophysiological studies to support its conceptualization of agency as related to unconscious mood.
- 4) Given the repetitive form of the fractal pattern of the Wave Principle (WP) that is central to socionomic theory at the aggregate level (we later describe it in more detail), certain social trend changes are now probabilistically *predictable* with socionomic theory, whereas Pareto's theory had no way to predict such trend changes. Lacking good sociological data and computer power, he could not quite discern the fractal pattern of the WP, though he grasped aspects of it.

First, we will briefly summarize the key elements of socionomic theory, and then we will present an outline of Pareto's sociological theory. With that foundation, we will outline the similarities and differences between socionomics and Pareto's sociological theory. Finally, we conclude with a comment on the implications of what we have learned via this comparison.

Summary of Socionomic Theory

Socionomic theory of herding – The theory of socionomics (Prechter, 1979, 1999a, 2001, 2003; Prechter and Parker, 2006) is unique in describing a model of unconscious, prerational herding behavior that posits endogenous dynamics that have evolved in homogeneous groups of humans in contexts of uncertainty, while eschewing the orthodox economic assumptions of equilibrium, rational choice and utility-maximization.

The unique causal model of socionomic theory utilizes a quantified structuralism, taking free choice seriously at the individual level yet finding probabilistic constraints on behavior at the aggregate level due to a structure-determined dynamic in the herding process. Socionomics' aggregate model of herding (WP) has a hierarchical fractal form that is self-affine to an intermediate degree. Neoclassical economic theory takes its model of causality from nineteenth century physics (Mirowski, 1989). Socionomics, in contrast, addresses the complex reality of financial behavior from the perspective of a modern holistic integration of the causal relationships between individuals and aggregates in society (see Prechter and Parker, 2004). Socionomic theory captures the process of decision-making under uncertainty in a manner that reflects the psychological reality of the individual's behavior while offering probabilistic prediction of the form-determined path of development of the social whole.

This new theory of herding is one of the theoretical foundations of socionomics (Prechter, 1999a, 2003), which is the study of the laws of human behavior in the aggregate. Putting all the key elements of socionomic theory together (see our Abstract for these primary theoretical principles), we can say that the socionomic theory of social motivation is that endogenous patterns of aggregated unconscious herding impulses under conditions of uncertainty produce a probabilistically predictable pattern of social mood, which in turn impels social actions (one of which is buying and selling in financial markets), records of which manifest as a hierarchical fractal described by WP (Elliott, 1938, 1946; Frost and Prechter, 1978/2005).

Context of uncertainty – According to socionomic theory, when people are uncertain, they default to a herding impulse developed through evolution. When humans do not know, they are impelled to act as if others do, and because sometimes others actually do know, herding increases the overall chance of survival. Though socionomics pertains to the domains of many different social sciences, it is crosscutting in a specific manner in its interdisciplinary focus and does not claim to have unlimited scope. Its particular relevance is limited to the domain of human social behavior related to decision-making in contexts of uncertainty. While the carefully circumscribed scope of socionomics may seem to be a limitation for any social theory, it is actually a strength for socionomics in that this feature permits the theory to combine contextualism and organicism in its assumptive base in a manner that would be problematic if the theory claimed unlimited scope (see Parker, 2006).

Prerational processes – Because herds are ruled by the majority, not the wise, financial market trends are based on little more than the shared mood of investors – how they feel – which is the province of the prerational areas of the brain mediating emotional responses, not rational ones (see Prechter, 2001). This basis for the herding instinct in neurophysiology helps socionomic theory avoid the weakness of many versions of instinct psychology that are arbitrary or nonparsimonious in needlessly multiplying instincts for explanatory purposes without an empirical basis. (See Prechter and Parker, 2006 for some of the relevant neurological research related to socionomics; in addition, the first in a series of functional magnetic resonance imaging (fMRI) studies related to the neurophysiology of unconscious mood is underway at Stanford University, funded by the Socionomics Foundation.)

Rationalization – The areas of the brain mediating rational thought play a role in the herding process. They provide rationalization, generating for the investor plausible-sounding reasons for his own unconscious behavior. Without this service, the herding impulse would encounter resistance from the dictates of reason. Some people are surprised to learn that one portion of the brain could generate prerational herding behavior, while a more rational portion of the brain might be unconscious of this herding dynamic. Shiller's (1990) survey-based study of the stock market crash of 1987 is a good example of the discrepancy between what investors say is the reason for a large price movement and what they actually did as they sold their stock in droves. The survey revealed that the most frequent reasons given for the crash was that the market was "overpriced" and that large institutional investors were selling when the market hit "stop-loss" points. These ideas sound rational and at least roughly related to fundamental analysis or rational trading techniques. Shiller's research found, however, that on the day of the big crash, an astounding 43% of his random sample of institutional investors was experiencing "unusual symptoms of anxiety (difficulty concentrating, sweaty palms... or rapid pulse) regarding the stock market" (p. 58). In contrast to the calm reasoning process of selling they reported in his survey, these investors were actually found to be "...people reacting to each other with heightened attention and emotion, trying to fathom what other investors were likely to do, and falling back on intuitive models...."

Cognitive uncertainty in survival-related situations is the context for agents shifting from a rational basis for action to an impulsive, instinctive mode of unconscious herding that necessitates the agent's reorienting away from his own information, valuation processes or plans and toward a focus primarily on the valuations of others as a guide to action, even if this reorientation takes place unconsciously. Post hoc rationalization of the resulting action completes this complex type of social action.

Endogenous causality – Data from several socionomic studies (Prechter, 1999a, 2003) allow us to dismiss numerous supposed reasons so far offered for adopting an opinion on the stock market that relies on causes outside the market itself, whether such causes are hypothesized to be economic reports, wars, terrorism, elections, corporate earnings, scandals, Fed actions or the movements of other markets. In the socionomic model that operates in financial markets, prices are simply a record of the endogenous herding dynamic and do not regulate it. Mirowski (1990, p. 296) has explained how, following

Mandelbrot's observation that "empirical [financial] time series of prices are not continuous functions," it is inevitable that the "Marshallian 'law' of supply and demand is most certainly the primary victim of this reconceptualization." Socionomics postulates that financial prices are simply an epiphenomenon of an unconscious, subjective valuation process. Waxing optimism produces rising prices, and waxing pessimism produces falling prices. In economics, prices are powerful; in finance, they are (in the aggregate) irrelevant. They are merely a gauge of investor psychology, which derives from social mood.

Homogeneous agents – Socionomics can explain why professional money managers, in the aggregate, fail to beat the market (Olsen, 1996). It is not because the market is random; it is because in the aggregate professionals are herding, just like most other investors. See Sias (2004), Welch (2000), Graham (1999), Trueman (1994), and Scharfstein and Stein (1990) for evidence of herding by institutions, investment newsletter writers, brokers, financial analysts, and money managers. Socionomics is among the minority of theories that argue for a homogeneous-agent model of herding. This is because amateurs and professionals alike are part of the herd in the financial markets. When it comes to herding, there are no significant differences in action between the traditional classes of "smart money" and "dumb money."

Evolutionary – Socionomics incorporates the idea that herding developed via evolution to enhance survival (see Prechter, 1999a). By coherently integrating theories of economics, which govern decision-making where knowledge is relatively certain, with a theory of finance, where knowledge is intrinsically uncertain, socionomics may represent the next step in the evolution of broader and more powerful theoretical models of human social behavior. Socionomic theory recognizes the need for both an accommodation to mechanistic causality in certain economic contexts, where rationality is the rule, and an assimilation of man's active, endogenous causal processes in social contexts of uncertainty, where herding is the rule. These Piagetian processes of assimilation and accommodation at the level of social behavior need not be in opposition conceptually if each is understood in its proper context.

Readers who are already familiar with Pareto's sociological theory but not socionomics will already notice a number of salient parallels between these two theories. Following a brief overview of Pareto's sociology, we will make these parallels explicit.

Summary of Pareto's Sociological Theory

Logical vs. nonlogical – Pareto declares the formula (§296, p. 194, note 1)¹ underlying his theory of "residues" (nonlogical actions manifesting underlying "sentiments" or "instincts") and "derivations" (post hoc pseudo-logical rationalizations people use to explain their nonlogical behavior to themselves and others) as follows: "The fact, the nonlogical action, comes first, then the explanation of the fact, the logical varnish." First the residue, then the derivation. He makes his fundamental distinction between "logical" and "nonlogical" actions (§150, p. 77) in an unusual manner:

Suppose we apply the term logical actions to actions that logically conjoin means to ends not only from the standpoint of the subject performing them, but from the standpoint of other persons who have a more extensive knowledge – in other words, to actions that are logical both subjectively and objectively in the sense just explained. Other actions we shall call nonlogical (by no means the same as “illogical”).

One aspect of this definition that is unusual is the *contextualism*, or perspectivism, that it demonstrates. The very definition itself hinges on whether an action appears logical from the point of view of an observer. (Cf. the theory of *autopoiesis* by Maturana and Varela, 1992, in which the role of the “observer” is similarly crucial.) While Pareto in many passages sounds like a traditional positivist with his emphasis on scientifically verifiable methodology, elements of contextualism such as the above separate him from the more mechanistic realists who predominated in the ranks of the positivists. His contextualism is useful heuristically, if we consider how it differs from the standard mechanistic formulation, but his way of combining contextualism with mechanistic approaches created eclecticism in his theory that is contradictory and confusing at times.

Role of instinct – Pareto (§§156-158, pp. 82-84) discusses one category of nonlogical actions, those that are *instinctive*, by making comparisons to insect societies:

“...Many, many human actions, even today among the most civilized peoples, are performed instinctively, mechanically, in pursuance of habit...”

Again using animals for a comparison, he notes that instinctive behavior may occur “at times even contrary to the animal’s interests.” His comments here make it clear that he views instinctive behavior as a mix of conscious and unconscious action and at times completely unconscious behavior. His relating “instinct” to “habit” evokes similar concepts by later institutionalist theorists.

Pareto uses analogies from “animal societies” (§1506, p. 961) to argue for the role of instincts in human social behavior:

Nor is it easy to see why the [social] contract should not hold just as well for animal societies such as the ants and the bees. If we assume that nothing but reasoning and logical thinking can hold human society together and prevent its dissolution, how explain the fact that the societies of ants and bees hold together and endure in time? But we say that such societies are grounded in instinct. How deny that that instinct plays its part in human societies as well?

While this logic is compelling, all varieties of “instinct psychology,” including Pareto’s, are vulnerable to a similar critique. It is quite tempting, once one starts explaining social phenomena by invoking some sort of instinct that prompts the behavior in question, to start hypothesizing a new instinct for every new category of social behavior that is observed but not easily otherwise explained. Such a careless approach is one reason that instinct-related theories fell into disfavor early in the past century, and such overuse of

the instinct concept for evolutionary psychologists may well threaten the validity of such an approach today. As Pareto remarked concerning social Darwinism, however, such an approach (relating social behavior to its instinctive roots) is not altogether without validity; one must simply take care to define the terms of such a theory very specifically, and take equal care to back up one's theoretical claims with empirical data. (This is just what Prechter has tried to do in his theory of the role of the herding instinct in human social behavior. His focus on only one instinct, rather than a plethora of instincts, has allowed him to delineate with care the scope of its manifestations in human social behavior and the observations that support his theory.)

After many examples of nonlogical actions in human social behavior, Pareto begins (§§217-218) to sketch his theory of residues and derivations. What he inductively notes is that there are only a few different types of residues, and their appearance is constant, whereas the derivations are numerous and quite variable.

Like a psychologist, Pareto takes seemingly incomprehensible behavior from the annals of history and analyzes it to discover the underlying “residue” whereby it becomes understandable (see §223, p. 149). Pareto states (§249.2, p. 171) his “need to do a thing of supreme importance for our purposes here – to tear off the masks nonlogical conduct is made to wear and lay bare the things they hide from view...to discover that the substantial element in the conduct lies in the things that underlie the logical exteriors.”

In formulating his theory about the role of sentiments in motivating nonlogical conduct, Pareto (§285, pp. 188-189) clearly drew on the earlier work in this area by Spencer: “Herbert Spencer advances a theory that nonlogical actions alone influence society. ‘Ideas do not govern and overthrow the world: the world is governed or overthrown by feelings, to which ideas serve only as guides.... All social phenomena are produced by the totality of human emotions and beliefs.’”

Evolutionary – Pareto seems to argue (§407, p. 247) for a theory of human social institutions related to an evolutionary theory in which human instincts themselves evolve to adapt to a changing environment:

There are certain principles of nonlogical conduct from which human beings deduce their laws. Such principles of nonlogical conduct (or “residues”...) are correlated with conditions under which human beings live, and change with those conditions.

The translator notes that the Italian word here translated as “principle” could also be translated as “cause.” It is also important to understand that for Pareto, “correlated” does not equate to “caused by.” He posited a “mutual interdependency” between such things as unconscious sentiments and “conditions under which human beings live,” seeing the process as a type of co-evolution. Such “conditions” were also not limited to material conditions, but also included cultural conditions such as those imposed by various social institutions.

Pareto notes (§2235, p. 1565, note 2), “But the power of sentiment and the influence of *habitual manners of reasoning* [emphasis added] are such that people disregard the force of logic entirely....” This wording helps us realize that Pareto’s residues and derivations may both be seen as institutions in the sense of Veblen and other institutionalists if we include as institutions those “habits of thought” that influence or constrain social behavior. (Similarly, it may be useful to view the fractal pattern of socionomic theory’s WP as an institution at the aggregate level that serves as a probabilistic constraint on the path of development of a society.)

Pareto (§619, pp. 374-376) had a complex attitude toward evolutionary theory, which he considered to have both scientific and unscientific versions:

The “historical” method opened the door for experience to make its way into some of the sciences from which it had been barred, and so served as a transition, beneficial from the strictly logico-experimental point of view, for bringing sociology closer to the level already reached by the natural sciences. Curious the confusion still obtaining in the minds of many people as to the “historical” and “experimental” methods [recall that for Pareto, “experimental” can mean “observational”]. The historical method, when it is – as seldom – genuinely historical and has no intermixture of metaphysical, sentimental, patriotic, and other similar reflections, is just a part of the experimental method. Its object is to study some of the relations arising in the experimental domain; in other words, it deals with “evolution,” with the manner in which certain facts succeed other facts in time.

This passage helps us understand why Pareto is often seen as opposed to evolutionary theory. What he was actually opposed to is the mixture of scientific versions of evolutionary theory with nonscientific, sentimentally or politically inspired versions of “Social Darwinism” or “worshiping the God of Progress.” He ridiculed these “nonlogical” elements mercilessly. In addition, Pareto (§1770, pp. 1230-1231) rejects key elements of Darwinian theory due to its causal reasoning, despite finding some “element of truth” in its observations. He consistently rejects simple mechanistic cause-and-effect explanations that have inadequate support in empirical data and which may oversimplify a more complex set of causal interdependencies.

Residues – Pareto has been justifiably criticized for his vague definition of “residues” (§850, p. 501). Here, though, he clearly identifies “residues” with nonlogical instincts, and identifies “derivations” with nonlogical cognition that serves as a post hoc rationalization of instinctive behavior:

Let us make the elements *a* and *b* our main concern. The element *a* [which Pareto later identifies with “residues”] corresponds, we may guess, to certain instincts of man, or more exactly, men, because *a* has no objective existence and differs in different individuals; and it is probably because of its correspondence to instincts that it is virtually constant in social phenomena. The element *b* [later identified with

“derivations”] represents the work of the mind in accounting for *a*. That is why *b* is more variable, as reflecting the play of the imagination.

Pareto lays out his classification of residues (§888, pp. 516-519), divided into six classes:

Class I	Instinct for combinations
Class II	Group-persistence (persistence of aggregates)
Class III	Need of expressing sentiments by external acts (activity, self-expression)
Class IV	Residues connected with sociality
Class V	Integrity of the individual and his appurtenances
Class VI	The sex residue

The meaning of much of Pareto’s terminology is unclear to the typical reader of English. His translator gives an extensive note on class I, the “instinct for combinations,” explaining that the term translated as “combination” can mean “deal,” “happy inspiration,” “big idea,” “scheme,” etc., so that an “instinct for combinations” could mean “the inventive faculty,” “ingeniousness,” “originality,” “imagination,” etc.

Pareto calls his class II of residues “group-persistences” or “persistence of aggregates” (§991, pp. 596-598). A note from the translator clarifies what Pareto meant by this description of this class:

The Italian phrase is “*persistenza degli aggregati*.” The aggregate is an aggregate (combination, association, group) of *sensations*. The tendency to consolidate such groups of sensations and make them permanent in time Pareto regards as one of the great and fundamental forces in society.... The concept of “group-persistence” would be a definition of the ordinary concept of “habit” or “custom.” The concept of “group-persistence” is basic in Pareto’s theories of the social equilibrium and class-circulation, and in general in his whole conception of history. (p. 596)

In order to understand Pareto’s theory, one must understand that this residue of “group-persistences” (persistence of aggregates of sensations) operates at multiple levels. For instance, Pareto sees one’s very concept of “the individual” or even one’s own sense of identity as an example of this residue. At another level, concepts such as “Uncle Sam” or “Russia” or “God” are also examples of this residue, where (according to Pareto) one has unconsciously and sentimentally grouped a collection of sensations together in one’s mind and then imagined that this grouping persists over time. It is strikingly original for Pareto to label this process as a nonlogical action, but it would be challenging to assemble proof that his assertion is incorrect.

At a yet higher level, the residue of “group-persistences” extends its influence into the maintenance of societal and cultural habits, customs, and institutions (cf. Hodgson’s 2004 discussion of “habit”). Pareto sets up this class II of residues in opposition to class I. He posited that in some domains of human social behavior the dynamic oscillation between the predominance of class I residues and class II residues plays itself out as the dynamic oscillation between societal forces for changes vs. societal forces for conserving

tradition. In other domains, it is the dynamic opposition of the motive forces generated by class I residues vs. class II residues that explains for Pareto the “circulation of the elites.”

Passing by Class III for a moment, Class IV of Pareto’s hypothesized residues (§§1113-1125, pp. 659-664) is that of “residues connected with sociality” (elsewhere also called “sociability”). This class of residues, along with class II, is most directly related to the unconscious herding instinct that plays such an important role in socionomic theory. Pareto describes various subtypes in this class of residues, of which class IV-β1 is the most relevant:

Voluntary conformity on the part of the individual. Imitation is of that variety. Imitation plays an important role in social phenomena....

The imitation may have a purpose: to attain some result that is beneficial, or is deemed beneficial, by means which have been seen to yield those results when used by others. But oftentimes no such purpose exists, at least no conscious purpose; and we then get nonlogical actions, which, as usual, come to be tinted with logical colourings. (p. 661)

Note that Pareto’s “voluntary conformity” may be unconscious, and it may or may not be beneficial. The same is true of Prechter’s herding impulse, which, like Pareto’s conformity, is due to an unconscious instinct rather than a rational plan. The rationalizations for herding behavior are mere post hoc “logical colourings.”

While Pareto does not directly address it, there is a strong connection between the instincts underlying the class IV residue of conformity and those underlying the class II residue of “group-persistences” discussed earlier. Obviously, one manifestation of group-persistences would be a person’s desire to maintain his identity with a group of other agents perceived to be like himself or that he wishes to emulate. We may characterize the distinction between class II and class IV as two aspects of the same instinct or as two closely related instincts. The class II aspect relates to the identity issue (perception of self as part of a group), while the class IV aspect relates to the concomitant behavior (herding). As Pareto often emphasized, “All social phenomena are complex mixtures of many elements involving many residues” (§1165, p. 693). Pareto’s discussion of the role of this class IV conformity residue in the area of fashion (§1119, p. 661; cf. Shiller’s (1984, 2000, 2001) ideas about “fads and fashions” in finance) provides further confirmation that Pareto and Prechter are talking about the same social instinct.

Within class V, Pareto (§§1208-1216, pp. 727-731) posits a subtype he calls “sentiments of resistance to alterations.” While much of his discussion of the instinct to “resist alterations in the social equilibrium” pertains to the domain of social or legal justice, his full discussion makes it clear that “social equilibrium” is a much broader concept. For instance, he notes,

The sentiment that inspires resistance to alterations of equilibrium places alterations in insignificant matters on a par with alterations in very important

matters, and people regard as equally “just” a sentence condemning an anti-trinitarian to the stake and a sentence condemning a murderer to death. The mere wearing of clothes different from the common fashion clashes with the sentiment as violently as other far more important transgressions against the social order.

Thus, this subtype of class V residues also has some relationship to the herding instinct, the impulse to be sure one is acting like the others in one’s perceived group. Pareto’s comment (§1215, p. 730) about the sentiment of opposition to the disturbance of the social equilibrium confirms this observation: “That feeling, in human society, is somewhat analogous to the instinct in animals that makes them flee at perception of danger.” Socionomic theory similarly hypothesizes that the dynamic of herding in contexts of uncertainty developed during evolution due to the survival value of such behavior: If one is uncertain of the source of danger, being sure to remain with the rest of the herd is perceived to enhance safety. Thus, aspects of socionomic theory are related to classes I, II, IV, and V of Pareto’s residues. The other two classes of residues, class III (need of expressing sentiments by external acts) and class VI (the sex residue), are fairly self-evident aspects of human nature. While these residues do not appear to have any significant conceptual connection with the remainder of Pareto’s theory (he rarely mentions them beyond their initial listing and description), they represent important components of socionomic theory, since mood impels social action, including procreation (see Prechter, 1999b). Thus, all six of Pareto’s classes of residues are related to socionomic theory.

Derivations – Pareto defines “derivations” (§1397, p. 885) as “reasonings with which people try to make conduct that is nonlogical seem logical.” Note that the key element in this definition is the quality of logical status of the *conduct* that the derivations are an effort to explain; the logical status of the *reasoning* used in these explanations is not in question, and may range from the patently absurd to the academically impressive. Some of the derivations Pareto identifies are related to accepted scientific theories, while others are more related to either religion or metaphysics, both of which Pareto considers to be totally worthless for science. Also recall that whether conduct is logical is judged not in accordance with some authority, or with respect to some particular purpose (such as “survival value”), but rather by the degree to which the connection between means and ends is judged to be logical by both the actor and observers. This standard is thus entirely atheoretical, a simple standard of “consensus” between actor and observer.

Pareto (§1419, p. 899) classifies derivations in the following categories:

- Class I: Assertion
- Class II: Authority
- Class III: Accords with sentiments or principles
- Class IV: Verbal proofs

As with his classification of residues, many have criticized Pareto’s classification of derivations for its arbitrariness and seemingly ad hoc nature. While such criticisms may be valid, this aspect of Pareto’s system seems to be a function of his commitment to the

inductive method. As much as possible, he sought not to impose any theoretical framework on his observations of the way in which men rationalize their nonlogical actions but rather simply to catalog their nonlogical reasonings. If some other theorist attempts to construct a more coherent theoretical framework for derivations, he would do well to emulate Pareto's insistence on empirical validation. (Prechter's initial work in assembling the data relevant to the creation of socionomic theory was similarly inductive in its approach.)

Of course, a theory may share Pareto's ideas about man's creative methods of rationalizing his nonlogical actions and may be quite useful without even attempting to classify the types of rationalizations men utilize. Socionomics is such a theory, including the idea that the primary role of the neocortex in financial behavior is to generate post hoc rationalizations for the impulsive financial decisions made via the limbic system, though socionomics makes no effort to categorize the vast array of rationalizations men use to justify their decisions.

Similarities between Prechter's Socionomics and Pareto's Sociology

Role of nonrational aspects of behavior – Both theories are at odds with *rational choice theory*, which assumes: a) methodological individualism; b) optimality or utility-maximization; and c) exclusive focus on self-regard, the idea that individual action is exclusively seeking one's own welfare, not that of others (Abell, 2000). Both Prechter and Pareto posit that *nonrational* factors ("herding impulse" and "unconscious social mood" for Prechter, "sentiments" and "instincts" for Pareto) are central determinants for much, though not all, of human social behavior, whether they involve self-regard (as both reason and herding often do) or not.

As one example, Prechter's theory of political change involves seeing unconscious shifts in (nonlogical) social mood as underlying the impetus of the electorate to either oust incumbent political leaders or re-elect them, regardless of the logical nature of the candidates' platform or policies. Pareto has a similar notion in his "circulation of the elites" theory, in which nonlogical drives for change in the ruling class of society leads to a periodic replacement of "lions" by "foxes" among the elites and vice versa. In other words, in Pareto's terms, socionomic theory would also say that it is residues, not derivations or genuine logical thinking, that motivates the voting behavior of the public. (See Prechter, Goel and Parker, 2002-2006, for an analysis of this dynamic in the U.S. presidential elections over the past 200 years.)

Parallels between socionomic theory and Pareto arise primarily from Prechter's "socionomic hypothesis," which states that social mood precedes and determines social action, not the other way around. This central idea parallels Pareto's insight that "residues" precede and determine social behavior, and "derivatives" come later, in an attempt to justify and rationalize these nonlogical actions.

While both Prechter and Pareto have highly original ideas about the distinction between logical and nonlogical thought, other theorists have systematically developed this

distinction at other times in the history of science. Compare, for instance, Freud's (1900/1996) distinction between "primary process" (nonlogical) and "secondary process" (logical) or Kahneman's (2003) "system 1" thinking vs. "system 2" thinking (see also Sloman, 1996).

Hierarchical, two-level theories – Both theories are hierarchical, having important theoretical components both at the individual level and at the aggregate level. For Prechter, the theory of "the unconscious instinct to herd in contexts of uncertainty" functions at the individual level, while his theory of "a fractal pattern of unconscious social mood" functions at the aggregate level. For Pareto, the theory of "residues" and "derivations" functions at the individual level, while his theory of "the circulation of the elites" functions at the aggregate societal level. Thus, both theories speak to aspects of both "structure" and "agency," though Pareto's theory does so mechanistically while Prechter's does so via a combination of contextualism and organicism.

Over-simplified responses to the agency/structure dichotomy in sociology are outdated. Modern sociologists are struggling to resolve this issue in a variety of creative ways; for example, see Giddens' (1979) idea of "structuration." Socionomic theory resolves this false dichotomy by setting its herding dynamic in the context of a process ontology (Prechter and Parker, 2004).

Ideas compatible with socionomics such as "simultaneous mutual causation" and "autopoietic processes" operating in the relationship between processes observed at the individual level and those observed at the aggregate level also demonstrate a disavowal of simple "cause and effect" analysis in linear terms in favor of causal relationships that are "neither linear nor nonlinear" but rather "proceed relentlessly according to form" (Prechter, 1999a, p. 400) at the aggregate level. Pareto regarded his ideas about "mutual interdependencies" among various social processes as crucial to his theory, resisting a reductionism to linear "cause and effect" relationships. These ideas were one of the tributaries to the later development of modern systems theory.

Potential for voluntaristic action – Prechter observes (1999a, p. 414), "...collective systems do not possess or exercise free will, [but] the capabilities of a man's independent conscious mind include the potential to understand, recognize and to some degree mitigate or overcome some of the impulsive forces of his unconscious mind." Similarly, Pareto comments (§1843, p. 1281), "The person who is able to free himself from the blind dominion of his own sentiments is capable of utilizing the sentiments of other people for his own ends." Thus, as Parsons (1937) perceived, there is room in Pareto's theory for elements of a "voluntaristic theory of action." In other words, as influential as the power of the sentiments is over human social behavior, Pareto never saw these sentiments as entirely deterministic of human choice – there is always room for the human mind to stand against the influence of both unconscious internal forces (sentiments) and external forces and make choices that are not entirely predetermined. Socionomics contains this same element of individual agency in conjunction with the probabilistic determinism of the aggregate pattern.

Thus, both theories imply a theory of action or agency that maintains a role for freedom of choice over decision-making at the individual level, such choices being seen as not entirely determined by heredity, environment and exogenous forces. The role of volitional agency and endogenous dynamics is especially explicit in socionomic theory. Pareto's "mutual interdependency" between processes at individual and aggregate levels offers hints of elements of voluntaristic agency also. In understanding the complexities of the relationships between individual agency and societal structure described by both Prechter and Pareto, it is important to keep in mind another admonition from Alexander: "...it is a nominalist error, associated with classical liberalism and neo-Kantian theory, to identify voluntarism with free will in the strong sense, that is, with the actions of a completely nonconstrained and nonsocialized actor" (p. 176). Neither Prechter nor Pareto show any sign of holding such a simplistic view of voluntarism; rather, they would both be comfortable with Alexander's observation that "There is a long tradition in social thought, most recently exhibited by Durkheim, Freud, and Piaget, which believes... that freedom depends, in part, on certain distinctive internal qualities which are produced only through association and internalization" (p. 176) and, we would add, the extent of one's conscious exploration of his unconscious impulses.

Endogenous vs. exogenous causality – As Rutherford (1998) points out, Veblen was like Schumpeter in seeing technological developments as explaining evolutionary changes in the "habits of thought" underlying institutional changes in an economic system. Socionomics would suggest, in contrast to both Veblen and Schumpeter, that such explanations invoke technology as a kind of exogenous *deus ex machina*, because socionomic theory sees both technological innovation and major trend changes ("business cycles") as endogenous products – i.e., results, not causes – of the oscillation of social mood over time. Positive social mood is the source of mental innovativeness and optimism that leads to technological breakthroughs and bullish upswings in the financial markets and the economy, while negative social mood is the source of technological stagnation and financial and economic downturns.

Pareto's thinking about "economic crises" is at odds with orthodox economic theory but strikingly similar to Prechter's conceptualization of the same issue (§2338, p. 1689):

A crisis must not be thought of as an accident interrupting a normal state of things. *The normal thing is the wave-movement* [emphasis added], economic prosperity bringing on depression, depression bringing on prosperity. In regarding economic crises as abnormal phenomena, the economist is making the mistake a physicist would be making in thinking of the nodes and internodes of a rod in vibration as accidents independent of the movements of the molecules of the rod....

The "crisis" is just a particular case of the *great law of rhythm* [emphasis added] that prevails in all social phenomena.... The social system shapes the crisis; it does not affect its substance, which depends upon the nature of the human being and of economic problems in general.

While there are many metatheoretical cross-currents in Pareto's work, and while some of the eclecticism in his thought yields contradictions, this passage gives us a view of his conception of society as an organic system, a structuralist view in which the general form of a society's progress, including its "crises," are due to the systemic nature of processes in that system rather than isolated "exogenous shocks" to an otherwise static and stable system. It is due to passages like this that later theorists rank Pareto as one of the fathers of modern systems theory. Prechter (1999a, pp. 370-371; 399-400) likewise says,

A variant of the approach that assumes society is a machine is the idea that the stock market is a machine. If it is running properly, the implied idea seems to go, then prices rise. If prices *fall*, the machine is broken. [But] to this day in evolutionary history, the emotional fragility of the human limbic system remains uncorrected. Until neocortexes evolve enough to dominate their primitive antecedents, the market shall ever rise, fall and occasionally crash...the cause of a market's process is its form, [so] financial market movements *cannot* result from a chain of incremental causes that trigger a reaction *because they follow the Wave Principle*.

Role of instincts – Both theories see an important role for an element of "instinct psychology." Instinct theories are experiencing a renaissance in the social sciences, though not in orthodox neoclassical economics (Pinker, 1994; Barkow, Cosmides and Tooby, 1992; Buss, 2003). We predict that this shift in popularity should facilitate the acceptance of a theory such as socionomics, based as it is on unconscious herding. Asso (2002, p. 3) sees Veblen's (1914/1990) definition of "instinct" as having four components: An instinct is an "a) unlearned, b) species-specific, c) goal-directed and d) organized pattern of behavior." Rutherford (1998, p. 465) notes that while "Veblen does not provide a precise definition of instincts, ...they are to be understood as determining the ends of action and not directly determining actions themselves." This distinction between the heritability of a structure for behavior rather than the heritability of the details of behavior itself is similar to the distinction Pinker (1994) makes in describing what he calls "the language instinct." Following the Chomskyan approach to psycholinguistics of the nativism of the "deep structure" of language, leaving flexibility for social experience to modify the "surface structure" of linguistic behavior, Pinker means something similar by his idea of a language instinct, and it is similar to what Prechter means by his "herding instinct" in suggesting a flexible behavioral manifestation of this instinct in determining human social behavior. One may consider "imprinting" to be a similar example from ethology of an instinctively determined type of goal-direction that is flexibly manifested in adaptation to the new environment in which a new organism finds himself. Unlike Veblen (see Cordes, 2005), Prechter does not rule out the notion of an unconscious instinct (Veblen tried to distinguish between "instinct," which he saw as conscious, and the idea of a "tropism," which he saw as unconscious and also more automatic and inflexible). Similar to Veblen's conception of instincts, the socionomic view is that the herding instinct is not an automatic tropism but rather an innate, evolutionarily derived goal-oriented impulse to herd in certain contexts. This concept leaves much flexibility for agents to adapt this impulse to a variety of contexts, all of which share an element of social uncertainty.

Waves and fractals – Both theories see society as undulating in a series of “waves inside waves.” For Prechter, this is a specific fractal pattern with detailed rules described by R. N. Elliott (1938, 1946) and Frost and Prechter (1978/2005). Pareto described a similar concept of undulating waves inside waves but offered a general impression rather than the detailed, comprehensive WP model that underlies socionomic theory. Pareto concludes the abstract for his chapter on “The Social Equilibrium in History” (p. 1432) with two sentences that correspond to socionomic theory:

The trends toward crystallization and free initiative are mutually successive phenomena. That is just a particular case of the general law that social movements progress in waves.

If one substitutes “positive social mood” or “impulsive growth” for “free initiative” and “negative social mood” or “corrective movements” for “crystallization,” one would have a general statement of the socionomic picture of social progress. Pareto points out the difficulties of assessing the trend of “sentiments determining the social equilibrium” (Prechter’s term is “social mood”) resulting from the fact that such trends contain fluctuations inside fluctuations (§§1718-1719, pp. 1179-1182). Although he postulated a pattern that is close to socionomics’ WP, one element he missed is the *self-similar* form of each of these waves on varying time-frames.

Though Mandelbrot had not yet coined the term “fractal” at the time of Pareto’s or Elliott’s research, Pareto described a similar concept of undulating waves of various degrees in time, which he illustrated this way:

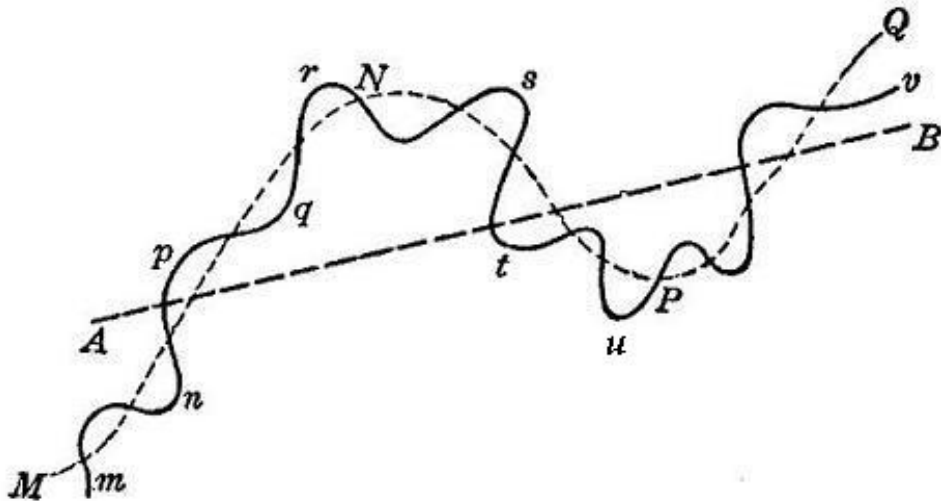


Figure 25

From Vilfredo Pareto, The Mind and Society, Vol. 3: Theory of Derivations, 1935 [orig. published in Italian in 1916], §1719, p. 1181. [The original illustration inexplicably omitted the italic letter “u,” which has been supplied here.]

Compare Pareto’s “wave-like form” to Prechter’s illustration of an idealized Elliott wave:

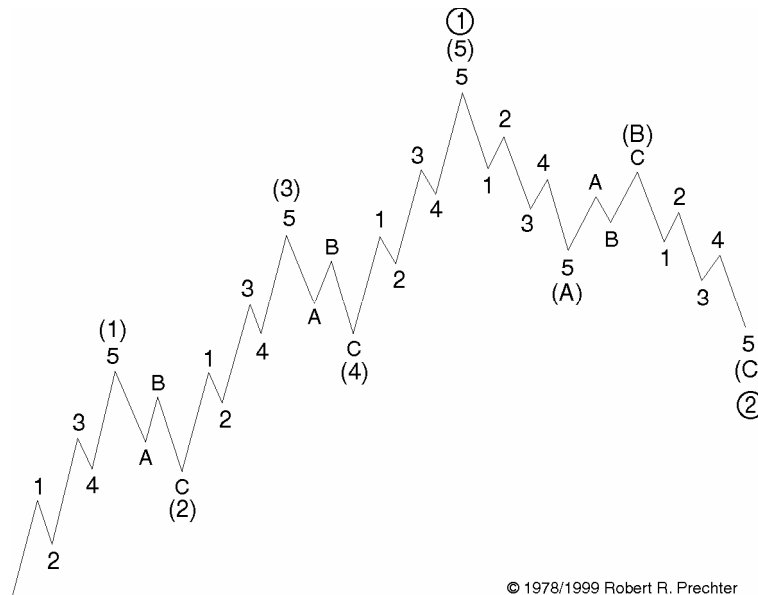


Fig. 1-3, from Robert R. Prechter, Jr. (1999a). *The Wave Principle of Human Social Behavior and the New Science of Socionomics*. Gainesville, Georgia: New Classics Library, p. 26.

Pareto’s footnote for his illustration of waves in society’s development reads in part:

...If the concrete development [in social trends] is represented (Figure 25) by *mnpqrstuv*, one observes: (1) That that line fluctuates about the undulatory line *MNPQ*; (2) that the latter in turn fluctuates about the line *AB*. In other words there are fluctuations of different amplitude, namely: 1. fluctuations of brief duration, represented by the line *mnpqrstuv*; 2. fluctuations of medium amplitude, represented by the line *MNPQ*; 3. fluctuations of maximum amplitude represented by the line *AB*; and so on.

Here Pareto, by relating this illustration to social processes determined by “sentiments,” has essentially illustrated Elliott and Prechter’s fractal pattern of social mood trends, discovered independently. Although Pareto’s illustration shows corrective waves as having five subwaves instead of the proper number (three), his illustration is almost identical to the similar illustrations in Elliott and Prechter’s books about the WP and socionomic theory. Pareto, like the Dow theorists, approached in a primitive way what Elliott later discovered in the WP.

No guarantee of societal progress – Both theories see the importance of a wave-like form at the aggregate level that oscillates endlessly, but Prechter sees society’s progress as a hierarchical fractal, while Pareto sees it as cyclical. Pareto, disagreeing with many of the social Darwinists of his time, ridiculed the assumption of progress in society, seeing

waves of “elites” simply displacing each other over time. He famously remarked, “History is the graveyard of aristocracies.” Pareto denies (§1681-1683, pp. 1112-1113) that theories in the social sciences show evidence of having produced cumulative progress toward “truth,” just as he denies that succeeding sets of elites in charge of government have produced cumulative “progress” (however one defines it) in society:

And so it is, considering for the moment only one or two of such oscillations, that in a little more than a hundred years, and, specifically, from the close of the eighteenth to the beginning of the twentieth century, one witnesses a wave of Voltairean scepticism, and then Rousseau’s humanitarianism as a sequel to it; then a religion of Revolution, and then a return to Christianity; then scepticism once more – Positivism; and finally, in our time, the first stages of a new fluctuation in a mystico-nationalistic direction. Leaving the natural sciences aside and keeping to social theory, there has been no notable progress in one direction or the other.

Pareto was both insightful and consistent (in contrast to his fellow economists) by realizing that his theory of “social equilibrium” implied (rather pessimistically, in the view of some critics) that real cumulative progress in social theories’ effort to approximate truth does not take place, if one looks at large-degree spans of time, though the “undulating” nature of small-degree social trends yields the appearance of progress if one ignores the trend of the larger time-frame. Compared to Pareto, other economists who adopt an “equilibrium” model of economic/social behavior also hold an inconsistent (Pareto would say “nonlogical”) belief in the inevitability of progress, whether based on some poorly integrated version of evolutionary theory or some simple non-rational faith in the inevitability of progress. Although WP is ultimately a more optimistic view of at least certain aspects of human progress, socionomics agrees with Pareto that socially shared beliefs about culture and politics fluctuate rather than trend upwards.

Socionomic theory also has a different explanation for the lack of cumulative progress in socially held beliefs, including, for example, social theory itself. The observed oscillations between different “fads” in social theory are due not to the opposition of the forces of “reality vs. utility” as Pareto speculates (he offers no evidence for this idea) but rather to the waxing and waning of two opposing trends of social mood, oscillating between positive and negative valence. We have recently conducted an analysis of social theories (Parker, 2006), looking at the alternation between the popularity of methodological individualism and methodological holism in the history of economic theory as correlated with positive and negative social mood, respectively. Even Pareto concludes that the key elements underlying this oscillation in social theory are the “sentiments with which men could not dispense.”

Differences between Prechter’s Socionomics and Pareto’s Sociology

Metatheoretical assumptions – Pareto’s theory is substantially mechanistic; Prechter’s theory instead has elements of contextualism and organicism (Pepper, 1942; Prechter and Parker, 2004). While Pareto makes some statements that profess an intent to be holistic in his theory, the details of his theoretical explanations often contradict this stated intent.

For instance, early in his treatise (§66, p. 32), he announces that his theory is holistic: “The fact that we deal with individual by no means implies that a number of individual taken together are to be considered a simple sum. They form compounds which, like chemical compounds, may have properties that are not the sum of the properties of their components.” He is clearly alluding to *emergent* properties of the aggregate in society. And yet the reductionistic, non-holistic aspects of Pareto’s more mechanistic approach is evident not only in his announced intention to model his sociological theory after the style of classical mechanics but also in his analysis of the “circulation of the elites,” which involves a conceptualization of the class structure of society that is fully reducible to personality variables in the individuals in that society. In other words, for Pareto such structures are epiphenomena that must be reduced to individual elements to be explained. Mechanistic reductionism does not recognize irreducible holistic effects due to natural principles of structural organization. In contrast, the fractal pattern in Prechter’s theory is an irreducible organizational principle that regulates individual behavior as much as individual behaviors aggregate to express that principle. The theory thereby incorporates compatibility between individual biology and behavior and the aggregate pattern, so Prechter’s theory is holistic, like many other organicist theories, not mechanistic.

Homogeneous vs. heterogeneous agents – Pareto develops (§§2228-2236, pp. 1556-1566) a complex theory involving the interactions of two different financial personality types: speculators or entrepreneurs (class S) and *rentiers* or savers (class R). While he offers no empirical evidence for this dichotomy, he speculates that Class I residues (combination-instincts) predominate in class S personalities, while Class II residues (group-persistences) predominate in class R personalities. His theory is thus one of heterogeneous agents interacting to produce the formal structure of society at the aggregate level.

While Pareto’s theory posits interaction among heterogeneous agents to account for his theory of the “circulation of the elites,” Prechter’s theory posits agents that are homogeneous relative to their possessing an unconscious herding instinct, aggregations of which generate social mood (see Pareto, §1535, p. 982). While Prechter’s theory allows for heterogeneity among agents relative to other factors that are secondary (e.g., levels of risk-aversion, short vs. long time-frames for decision-making, analytical approaches, degree of desire to conform, etc.), the theory’s reliance on homogeneity of agents with respect to its fundamental aspect is rare among major theories of herding (see Parker and Prechter, 2005).

There is thus a different emphasis in Pareto’s theory as compared to Prechter’s: the former accentuates differences between people and classes of people in society, while the latter accentuates an essential similarity among people with respect to herding and therefore participating in social mood trends, which motivate social actions of people of all social classes and all personality types, even if they differ from one another to some extent on less crucial dimensions. We see these supposedly separate types and classes not as divided groups but as continua, a different perspective that accounts for much of the disagreement between socionomic theory and theories that invoke causal dynamics among heterogeneous groups.

Pareto claims (§2235, p. 1563),

The two groups [class S and class R] perform functions of differing utility in society. The S group is primarily responsible for change, for economic and social progress. The R group, instead, is a powerful element in stability, and in many cases counteracts the dangers attending the adventurous capers of the S's. A society in which R's almost exclusively predominate remains stationary and, as it were, crystallized. A society in which S's predominate lacks stability, lives in a state of shaky equilibrium that may be upset by a slight accident from within or from without.

This description provides suggestive evidence (not proof) that Prechter's theory of homogeneous agents may lend itself to more useful predictions about social trends and social change than Pareto's. Why? If the primary source of change vs. stability in a society were primarily due to extremely stable (and heritable) factors such as personality traits, one would expect to see a very different world history and more rigid differences between social behavior in one country vs. another than one in fact observes. Some countries, with a predominance of class S personality types, would lack stability almost all the time, while other countries, with a predominance of class R personality types, would be stable to the point of stagnation as the decades rolled by. This is not the primary trend that the record of history exhibits: rather, in every country (while there are certainly significant differences in various countries' "national character"), the path of history shows periods of relatively rapid growth and development alternating with periods of correction and either stability, stagnation, or deterioration. The reader is challenged to think of a single country that could serve as a counter-example over large-degree time spans of a century or more. This historic record is more supportive of socionomic theory, in which, as the psychologist Harry Stack Sullivan once said in a related debate about the importance of different personality types, "People are more simply human than otherwise." Thus, socionomic theory would suggest that Pareto's class S and class R are more usefully seen as personifications of a single oscillating affective process in society, with class S representing positive social mood and class R representing negative social mood, which ebb and flow (to varying degrees in different people, certainly, depending on personal traits) in all personalities in all social classes.

Pareto attempts to explain the "cyclical" and "undulating" form of the oscillation between protectionism and free trade primarily on the basis of a "circulation of the elites" (§§2215-2224, pp. 1549-1553). This explanation is based in turn on his theory of the varying distribution of residues in different groups in society. Thus we may view his theory of waves of protectionism alternating with free trade as based on waves of sentiment (what socionomists would call "social mood"). Similarly, socionomic theory posits that periods of free trade are due to large-degree waves of positive social mood (optimism, including optimism about the motivations of trading partners) while periods of protectionism are due to large-degree waves of negative social mood (pessimism, including distrust of trading partners). As Pareto would point out, ample evidence supports the fact that such an alternation of positive and negative attitudes toward free

trade over history is based on “nonlogical” principles. Free trade between countries is generally mutually advantageous, so if the choice were based on purely logical principles, the evidence of history would simply show more and more thoroughly elaborated policies of free trade agreements over the centuries. This is an example of an area in which socionomics agrees with Pareto that societies fail to progress and simply oscillate.

Role of equilibrium – Pareto’s theory includes a key role for the concept of “equilibrium.” His thoroughly mechanistic version of equilibrium theory posits society as a type of homeostatic mechanism that seeks stability. His complex statements about equilibrium include allusions to different types of equilibria, a “social equilibrium theory” that is based on “mutual interdependencies” among four sets of factors (residues, derivations, economic interests, and social heterogeneity and circulation), and efforts to model all of these after the equilibrium of physical processes in classical mechanics.

Pareto’s concept of “social equilibrium” (§§1208-1212, pp. 727-729) is both complex and vaguely expressed. It is such a general concept – which he applies to so many different dimensions and types of social phenomena – that one may question whether he is describing a unitary phenomenon. As a subtype of class V residues in his theory, Pareto posits a subtype he calls “sentiments of resistance to alterations in the social equilibrium.” This is his vague definition:

If an existing state of social equilibrium is altered, forces tending to re-establish it come into play – that, no more, no less, is what equilibrium means (§§2068 f.). Such forces are, in chief, sentiments that find their expression in residues of the variety we are here examining. On the passive side, they make us aware of the alteration in the equilibrium. On the active side, they prompt us to remove, repel, counteract, the causes of the alteration, and so develop into sentiments of the [vengeance] variety (§§1312 f.)....

Prechter’s theory, in contrast, clearly disavows any belief in a dynamic of equilibrium or mean-reversion in social systems (Prechter and Parker, 2004):

All the diverse [business cycle] theorists--from Jevons (1866) to Schumpeter (1954) to the monetarists to Keynes (1936/1997)--share assumptions in common, primarily that aggregate economic activity is attracted to equilibrium. Just as fundamental analysis presumes oscillation around a value mean, neoclassical business cycle theory presumes that an economy oscillates around an activity mean, where supply and demand are stable. Where business cycle theorists get creative is in their diverse attempts to come up with explanations for departures from equilibrium. There is usually no theoretical connection between the explanations for equilibrium and for disequilibrium, because neoclassicists simply take the former as a theoretical given and the latter as an exception to the rule. (p. 10)

Because the law of supply and demand does not regulate the financial marketplace, there is no balance of desires that prices can arbitrate. Without the governing influence of the law of supply and demand, without the conflicting purposes of

producers and consumers, financial prices are free to fly unfettered wherever investors' aggregated impulses take them. The result is not equilibrium but unceasing dynamism at all degrees of trend. If any law is operating in finance, it must be something other than the law of supply and demand, and it must take into account actual market behavior. (p. 18)

In socionomic theory, investors' endogenous moods, shared via their herding impulse, motivate aggregate stock market trends and the values that result. These trends are the basis upon which investors judge the way that other investors may value stock in the future, and thus they motivate current buying and selling. As a result, in finance there is no mean-reversion to equilibrium. There is only the ceaseless dynamism of social-mood waves, fluctuating between optimism and pessimism. In this process there is no reliance upon "fundamental values" because participants disregard personal, present valuation and focus on the assessment of others' future valuation (see Prechter and Parker, 2006). While the former is substantially known, the latter is substantially unknown, thus providing the context of uncertainty in which socionomic dynamics operate.

Wave theory vs. static theory – Finally, Pareto's theory has implications that are much more pessimistic than the implications one may draw from Prechter's theory. Pareto was very dubious that the pattern of history and evolution allowed one to expect any progress in any meaningful sense. His "circulation of the elites" is essentially a theory about one group of scoundrels endlessly following another, with no net benefit for society. In contrast, Prechter's theory is ultimately hopeful about certain aspects of human progress. Although his theory permits continual detours toward recession and regression, even on large time-frames, there is also, for example, progress in the extent of knowledge of nature and how to exploit it. The fractal pattern of socionomics' Wave Principle is inherently a pattern of growth and progress. Its conformity to quantitatively elastic patterns of five waves upward followed by three waves downward is a "dance of progress": three steps forward, then two steps back, etc. Prechter's aggregate theory of the Wave Principle does suggest, with perfectly logical consistency, a projection of types of social progress over the largest time-frames. Such a projection is consistent with the fractal model of organic growth: like the growth of other living organisms, the organic growth of society will continue until it dies (this is only an analogy, but it is a useful one when carefully applied). The fact that this model may logically include periods of a hundred years or more of "social regress" rather than progress within its fractal pattern makes it no less positive (based on realism, not optimism) in its total depiction of the growth of living social systems over the span of human history. It is the fractal pattern of human development that suggests periods of impulses of growth alternating with periods of retrenchment. It is Elliott's insight that this fractal pattern is scale-invariant: The same pattern of three steps up in societal progress alternating with two steps back in societal regress describes the development of human society whether the time-frame under examination is years, decades, centuries, or millennia. Since large-degree waves in this fractal pattern can permit a corrective wave that may last a hundred years or more, there is room in this theory for the occasional appearance of a Dark Age, but the theory always sees another Golden Age ahead, though there may be a long wait for one who is born at the wrong time.

Conclusion

Looking back over the past century, and looking forward to the future, how will history evaluate the two heterodox theories of Pareto and Prechter? Though Pareto's sociological theory has tremendous heuristic usefulness, many of his specific hypotheses have not stood up well over time. For instance, Pareto saw two main factors determining the oscillations in a society's prosperity: (1) the proportion of class I vs. class II residues in its governing elite and (2) variations in class-circulation in that society (§2417, pp. 1742-1743). Unfortunately, little evidence has accumulated in the century since he published this theory that supports its validity. His theory has inspired few followers to gather empirical evidence along these lines both because his theoretical system is overly complex and hard to understand, even for willing students, and because there are significant measurement problems involved in detecting the relative predominance of "class I vs. class II residues" in a society. Though Pareto himself attempted to illustrate his theories with numerous lengthy examples from history, such anecdotal narratives are not generally seen as constituting systematic scientific evidence for such a theory. At this point in history, we must note that Pareto's theory has not inspired much useful research, though it has been available for many decades, while socionomic theory is already offering useful explanations of behavior that are relevant to finance theory, macroeconomics, political science, sociology and other areas.

The endogenous causal model posited by socionomics charts a non-traditional course in the social sciences for which it has relevance. Its theory of finance is especially at odds with any model of financial behavior that shares the prevailing neoclassical economic assumption of mechanistic causality and "exogenous shocks." Neoclassical economic theory is useful in the right domain but finance and other areas of human social behavior do not offer the proper context for its application.

Noelle-Neumann (1993, p.116) notes that for two centuries, the view that social man is primarily rational has clashed with the view that social man is primarily instinctual. Instinct-related theories were popular at the time Pareto wrote. A prominent example is the work of Trotter (1916) on *Instincts of the Herd in Peace and War*. Other examples include the work of William James, William McDougall and C. Lloyd Morgan (see Asso and Fiorito, 2002, for an overview). In later decades, instinct psychology fell into disrepute, being displaced by rational choice theory in economics and political science and behaviorism in psychology. With the rise of behaviorism in the 1930s, instinct theory became much less popular, first within psychology and then within institutionalism and economics as a whole (see Hodgson, 1998). The same trends that led popular opinion away from the influence of the other institutionalists after the 1930s most likely contributed to the neglect of Pareto's instinct-based theory as well. The current renaissance of instinct theory in the social sciences represents a significant trend change.

These fundamental views about instinct and rationality have cycled in and out of favor (Parker, 2006), a fact that helps explain why Pareto's sociology has been given such scant attention in the past half-century, during which time exclusively reason-based social

theories have dominated the discussion. In the evolution of social theory, however, the pendulum of history is beginning to swing back in his direction, toward theories of instinct and less than fully rational decision-making. Thanks to the economic experiments of behavioral finance and to the anomalies for the efficient market hypothesis explicated by researchers such as Shiller (1984) and Lo and MacKinlay (1999), some economists are beginning to recognize the importance of the non-rational and instinctual aspects of human behavior. As this new wave of science examining the nature-nurture question comes into focus, we are moving past simplistic questions such as “Is man’s behavior instinctive or rationally determined?” to a more sophisticated and more useful question: “How do the dynamics of rational social behavior relate to the dynamics of instinctive social behavior?” Socionomic theory has an answer: the context of uncertainty marks the boundary between the dominance of unconscious, non-rational behavior and conscious, rational behavior in social settings; as such, it is the boundary between financial and economic behavior.

Note

1. All references to Pareto in this paper refer to Pareto (1916/1935). We are following the tradition of citing Pareto’s sociological work by referring to section number and page number with each citation, rather than giving volume and page number of the four-volume edition we used. Since the pagination is somewhat different in the Italian, English, and French translations (and in an abbreviated condensation of this voluminous work), but almost all versions cite the section numbers in the same fashion, this should facilitate further research and corroboration of our findings.

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