

PARETO AND A SCIENCE FOR LAW

ROBERT B. GOSLINE

Until recent years, the Law has spent its life far from the category of "experimental science." Along with the other social sciences, it has been kept from this category because it relates so directly to the actions of human beings, which until recently have been considered beyond analysis and entirely unpredictable. Many jurists who have written during the past thirty years have sought the fundamental basis of the law in the actions of those most closely connected with the law, the judges. In like manner, Vilfredo Pareto¹ has sought the fundamental forces of all social sciences in the actions of men. His *Treatise on General Sociology* (1916)² is concerned with the formulation of a method by which these heretofore normative and inexact sciences may be put on a sound experimental basis.

Like Machiavelli, Pareto attempted to understand what men *do* rather than what they *ought to do*,³ for with an understanding of the forces which motivate the actions of men, we will be able to explain the forces which guide and control society.⁴

Experimental sciences are based on logical deductions from facts which are established by observation. The only sociological facts which we can observe are human acts, but these are sufficient, for they correspond directly with the motivating forces on which an experimental social science depends.⁵ These

¹ 1848 to 1923.

² The English translation of Pareto's work is entitled *The Mind and Society* (Harcourt, Brace & Co., New York, 1935) four volumes.

³ Henderson, "Pareto's Science of Society"—*SAT. REV. OF LIT.*, Vol. XII, p. 3 (May 25, 1935).

⁴ *Ibid.*, p. 4.

⁵ Homans & Curtis, *Introduction to Pareto* (Alfred A. Knopf, N. Y., 1934), p. 19, 50 ff.

facts can be divided into two fundamental groups, (1) experimental and (2) non-experimental. The experimental acts are based on determined facts and look toward and are motivated by a definite purpose. The non-experimental acts are the expression of the Sentiments (motivating forces) of the actor. Few actions are entirely of one type or the other, and the same act in different circumstances may fit either classification.⁶ Because non-experimental acts or acts predominately non-experimental are expressions of the Sentiments, and because they comprise the major portion of the acts of men, Pareto chooses them as the basis of his science of society.⁷ In so doing, he sweeps aside the primary assumption of most other sociologists that men act logically and experimentally in all cases.⁸

The purpose of the social system of Pareto is to make these non-experimental acts intelligible.⁹ The fundamental motivating forces he calls Sentiments; the *corresponding* actions he calls Residues; and to the rationalizations or explanations of the actions he gives the name Derivations.¹⁰ Man has sought, because of his desire to be logical, to make his non-experimental acts intelligible in his own way, that is, by giving them logical explanations. Thus, he hides from himself their non-experimental nature.¹¹ Though these three factors necessarily interact, the Residues (actions) are predominately the results of the necessity of expressing Sentiments rather than the results of the Derivations as men would have themselves believe.¹²

On the basis of his two fundamental assumptions, e.g., (1)

⁶ *Ibid.*, p. 70-78.

⁷ Henderson, *Pareto's General Sociology—A Physiologist's Interpretation* (Harvard Univ. Press, Cambridge, 1935), p. 21.

⁸ *Ibid.*, p. 28.

⁹ Handman, "The Sociological Method of Vilfredo Pareto" (*Methods of Social Science*, Univ. of Chicago Press, Chicago, 1931), p. 189.

¹⁰ Henderson, *Pareto's General Sociology*, *op. cit.*, p. 21, 22. To avoid misunderstandings of terms, Pareto used hundreds of illustrations so that the mind would focus on them rather than on the terms used. DeVoto, "The Importance of Pareto," *SAT. REV. OF LIT.*, Vol. XII, p. 11 (May 25, 1935).

¹¹ Handman, *op. cit.*, p. 139.

¹² Homans & Curtis, *op. cit.*, p. 79-85.

most of the acts of men are non-experimental, and (2) these non-experimental acts correspond directly to the Sentiments which motivate society, Pareto classified the Sentiments in terms of the acts to which they correspond.¹³ A brief restatement of this classification follows:¹⁴

1. *Instinct of Combination.* When a combination of facts or ideas is for a purpose, it is probably experimental and can be explained by its purpose. But when a combination is without purpose, and facts are logically unrelated, it is probably non-experimental and explainable only in terms of the Sentiment expressed.

2. *Instinct of Persistent Aggregates.* Non-experimental refusal to overturn established associations of facts or ideas.

3. *Necessity of manifesting Sentiments by acts.* Example: parades.

4. *Individual's need for maintaining his integrity.* Example: opposition to change of social order to which individual is fitted.

5. *Necessity for social life.* Example: desire for uniformity and likeness.

6. *Sexual instincts.* Considered as controller of mental attitudes rather than physiological impulses.

The most important and serviceable of the classes are the first two.¹⁵ Pareto found confirmation of these categories among the facts of history, and he used hundreds of pages of examples to demonstrate his points.¹⁶ However, he recognized that his general classifications were merely approximations and that their greatest utility would be as starting points for further refinement.¹⁷

¹³ For a complete and detailed description of this classification, see Homans & Curtis, *op. cit.*, p. 96-98.

¹⁴ Handman, *op. cit.*, p. 140-42.

¹⁵ Henderson, "Pareto's Science of Society," *op. cit.*, p. 10.

¹⁶ Homans & Curtis, *op. cit.*, p. 6.

¹⁷ *Ibid.*, p. 47.

Likewise, Pareto classified Derivations (post-rationalizations of non-experimental acts) so that they might be recognized and used as aids to point out the Residues (the non-experimental acts).¹⁸

1. *Simple affirmation.* Example: unfounded statement.
2. *Authority, appeal to.* Example: quotation of bible.
3. *Accord with sentiments or opinions.* Example: wishful thinking.
4. *Verbal proofs.*¹⁹ Example: syllogism with ambiguous middle term.

These methods of unsound rationalization which point to non-experimental acts are present in nearly all writings except the most carefully scientific works and colorless statements of concrete sensory experiences, and "this theorem holds for all men, always, everywhere."²⁰ This does not necessarily infer that non-experimental acts are harmful but rather that they are necessary functions of society.²¹

Thus, for Pareto, society could be represented by a series

¹⁸ *Ibid.*, p. 178-9; Henderson, *Pareto's General Sociology, op. cit.*, p. 35.

¹⁹ The power of words is often underestimated. "From the earliest times, the symbols which men have used to aid the process of thinking and to record their achievements have been a continuous source of wonder and illusion. The whole human race has been so impressed by the properties of words as instruments for the control of objects, that in every age, it has attributed to them occult powers. Unless we fully realize the profound influence of superstitions concerning words, we shall not understand the fixity of certain widespread linguistic habits which still vitiate even the most careful thinking." Ogden and Richards, *The Meaning of Meaning* (Harcourt, Brace & Co., Inc., New York, 1927), p. 24.

²⁰ Henderson, *Pareto's General Sociology, op. cit.*, p. 46.

²¹ Pareto was also concerned with the establishment of a concept of a social system in equilibrium similar to the thermodynamic system or the physico-chemical system. "Utility" is the equivalent of equilibrium, and the two social classes, the "elite" or governing class and the "masses," representing respectively the predominance of the instinct of combinations and the persistence of aggregates, are the variables which produce or unbalance "utility."

Brooks Adams, writing early in this century, saw law as the resultant of the same two social forces. Law shifts into a new equilibrium when the controlling class is forced to give up established rights. "The Modern Conception of Animus," 19 *Green Bag* 33 (1909).

of equations involving the variable forces motivating men and resulting in the non-experimental acts which they attempt to make appear logical and experimental.²²

Pareto's critics have said that his ideas were far from original,²³ and his proponents agree, but they go further to say that no one ever before organized the same ideas into a coherent scheme.²⁴ Pareto's psychology has been criticized as incomplete in the light of more modern research,²⁵ because Sentiments cannot be considered fundamental as they are subject to change by conditioning, and because history was his source of information rather than a laboratory.²⁶ His sociology has been criticized because he was not familiar with the authorities in that field.²⁷ But, the critics do not seem to have destroyed altogether the value of Pareto's idea that the actions of men are the results of stimuli other than logical argument nor the value of his start towards classifying these stimuli in a usable manner.²⁸

The interest of lawyers in the ideas and classifications of Pareto lies in the possibility of applying them to a science for law.²⁹ They apply only to those phenomena which can be re-

²² Handman, *op. cit.*, p. 151.

²³ McDougall, "Pareto as a Psychologist," I JOUR. OF SOC. PHIL. 38 (1935).

²⁴ Homans & Curtis, *op. cit.*, p. 220.

²⁵ McDougall, *op. cit.*, p. 45.

²⁶ Murchison, "Pareto and Experimental Social Psychology," I JOUR. OF SOC. PHIL. 55, 60, 61 (1935).

²⁷ House, "Pareto and Modern Sociology," I JOUR. OF SOC. PHIL. 79 (1935).

²⁸ Pareto was not the first to recognize Residues and Derivations, but he was the first to arrange them in a coherent system. Homans & Curtis, *op. cit.*, p. 220. The concept of "organic thinking," "the action of an organism responding to stimulus," parallels Pareto's idea, for it accepts thinking and the actions arising from it as responses to stimulus rather than results of experimental logic. Deyser, *Thinking About Thinking* (Dutton & Co., N. Y., 1926) p. 9.

²⁹ Although he didn't consider the matter in detail, Pareto felt that law and the courts were proper subjects for treatment according to his classifications and analyses. "In a word, it may be said that the court decisions depend largely upon the interests and sentiments in a society at a given moment; and also upon individuals and chance events; and but slightly, and sometimes not

duced to and expressed in terms of *acts of men which are non-experimental*.

Law has been described as the acts of judges. Justice Holmes long ago said that his idea of law was what judges would do.³⁰ This concept has been widely accepted since that time.

Many judicial acts are fundamentally non-experimental.³¹ As mentioned above, experimental acts are based on predetermined facts and motivated by a definite purpose. At the other extreme are acts which are entirely devoid of any basis in fact and unguided by any purpose. These acts are non-experimental. The acts of judges, as judges, are their decisions. Some decisions are reached as a result of a search for a workable rule of law.³² These can be considered experimental for they are based

at all, upon codes or written law." He mentioned various factors which might influence juries or courts and result in non-experimental decisions. Pareto, *op. cit.*, sec. 466. Actions of courts and judges are pointed to in other parts of the treatise as non-experimental. *Ibid.*, sec. 1771-72, 1842, 2265.

³⁰ "The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by the law." Holmes, "The Path of the Law," 10 HARV. L. REV. 459 (1897); *Collected Legal Papers* (Harcourt, Brace & Co., New York, 1921), p. 173.

³¹ "The life of the law has not been logic; it has been experience. The felt necessities of the time, the prevalent moral and political theories, intuitions of public policy, avowed or unconscious, even the prejudices which judges share with their fellow-men, have had a good deal more to do than the syllogism in determining the rules by which men should be governed. The law embodies the story of a nation's development through many centuries, and it cannot be dealt with as if it contained only the axioms and corollaries of a book of mathematics." Holmes, *The Common Law* (Little, Brown & Co., Boston, 1881), p. 1.

³² Pound, "Theory of Judicial Decisions," 36 HARV. L. REV. 641 (1923).

In *Epstein v. Gluckin*, 233 N.Y. 490 (1922), Cardozo said, "Mutuality of remedy is important insofar only as its presence is essential to the attainment of that end. The formula had its origin in an attempt to fit the equitable remedy to the needs of equal justice. We may not suffer it to petrify at the cost of its animating principle." On this basis, many years of precedents were overruled and the rule involved placed on a workable basis. Later, he commented on this case in *The Growth of the Law* (Yale Univ. Press, New Haven, 1927) saying, "Only the other day, the Court of Appeals reconsidered the whole subject and put it on a basis which will be found consistent, so at least I hope, with equity and justice." p. 15.

on facts observed by the judge in his own experience and logical deductions from these facts. On the other hand, a judge may render a decision in which he has relied entirely upon his intuition, his instinct based on his subconscious reactions.³³ Between these extremes are found decisions in which the ingredients, empiricism and instinct, exist in varying degrees.³⁴ Pareto recognized that few facts would be completely experimental or non-experimental, but in acts which contain both characteristics, one will predominate.³⁵ The decisions which are predominately instinctive may be treated as non-experimental.³⁶ Considered thus, Pareto's concepts would apply to judicial acts.

Llewellyn and some of the other Realists have sought to broaden Holmes' concept of law as the acts of judges so that it would include the actions of laymen who become involved with the law, administrative officials, lawyers, and all others on whom the law impinges.³⁷ It would seem that such actions and reactions could also be classed as non-experimental where conscious self-interest is not present to give them purpose.

³³ "But I . . . got my hunch, and by the practice of logomachy so bewordled my opinion in support of my hunch that I found myself in the happy position of having so satisfied the intuitive lawyer by the correctness of my hunch, and the logomachic lawyer by the spell of my logomachy, that both accepted the result and the cause was ended." Hutcheson, "The Judicial Intuitive: The Function of the 'Hunch' in Judicial Decisions," 14 CORNELL L.Q. 280 (1929). Jerome Frank has said, "Talks with candid judges have begun to disclose that, whatever is said in the opinion, the judge often arrives at his decision before he tries to explain it. . . . A judge often arrives at a decision by a hunch as to what is just and fair or wise and expedient." Frank, *Mr. Justice Holmes and Non-Euclidean Thinking*, 17 CORNELL L.Q. 594 (1932).

³⁴ Cardozo has recognized that the logic of a judicial opinion may be a false front. "We gather together our principles and precedents and analogies, even at times our fictions, and summon them to yield the energy that will best attain a jural end." *Paradoxes of Legal Science* (Col. Univ. Press, New York, 1928), p. 60.

³⁵ Henderson, *Pareto's General Sociology, op. cit.*, p. 102.

³⁶ "It is often said that the opinion gives the 'reason' for the decision. In the vast majority of cases, it does not really do that, but . . . gives an essay on points of law." Radin, "Case Law and Star Decisis," 33 COL. L. REV. 210 (1933).

³⁷ Llewellyn, "A Realistic Jurisprudence," 30 COL. L. REV. 435 (1930).

Law, so conceived, would still be susceptible to Pareto's classifications.

Applying Pareto's classifications to the types of human action mentioned above, three types of legal science might be formulated.³⁸ Treating law as what judges do, you might es-

³⁸ Many different bases for a science of law have been suggested. They can be grouped under the headings: (1) pure science of law; (2) analytical science of law; (3) real science of law.

Pure science of law.

Adler, in commenting on Jerome Frank's book, *Law and the Modern Mind*, insists that a formal science of law must be recognized. "Its subject matter is purely propositional; its only instrumentality is formal logic." It is not incompatible with an experimental science of law but supplementary to it as mathematical physics is to experimental physics. Adler, "Law and the Modern Mind—Legal Certainty," 31 *COL. L. REV.* 103-4 (1931). Kelsen treats the science of "law and the state" as "a science whose sole object is to comprehend state and law in their juridical reality, to grasp them notionally, to analyze their structure, to explain their interrelations." Lauterpacht, "Kelsen's Pure Science of Law," *Modern Theories of Law* (Oxford Univ. Press, London, 1933), p. 106. Stammler distinguishes between (1) a technical legal science, which elucidates a given legal system, and (2) a theoretical science which is "concerned with law as a set of rules formulating the means to fundamental human purposes, and it has to inquire into the real value of the means employed and to discover the basis and justification of actual law." He would search for "fundamental principles" which would produce "complete harmony." Ginsberg, "Stammler's Philosophy of Law," *Modern Theories of Law, op. cit.*, p. 38, 40. In contrast to his ideas of an experimental science of law, Yntema deals with the "pure" or "formal" science of law. Such a science would deal entirely with logical considerations of accepted rules and concepts. Yntema, "The Rational Basis of Legal Science," 31 *COL. L. REV.* 927, 929 (1931).

Analytical Science of Law

Hohfeld thought that the thing most necessary to a usable legal science was a complete and exact analysis of the law as it exists. To this end, he organized law on the basis of the legal relationships involved. Cook, "Hohfeld's Contribution to the Science of Law," 28 *YALE L. REV.* 721 (1919). Holland states that "the science of law, jurisprudence, consists of analyzing the positive law of the time. As the law changes, the analysis must change." Holland, *Jurisprudence* (Clarendon Press, Oxford, 1924), 13 ed. p. 7, 9. Dean Pound describes a group of jurists who believe that the law is complete now, and that the science of law deals only with analyzing cases, etc., and finding out what law exists. Pound, "Analytical Jurisprudence," 41 *HARV. L. REV.* 174 (1928). Salmond treats the "practical juris-

establish a *descriptive science* of law based on the analysis of the non-logical actions of the judges. Or, treating law more broadly as not only what judges do, but also what juries, laymen, lawyers, and administrators do, you might establish a *descriptive science* dealing with the non-logical actions of all these people. Still another possibility is that after an analysis is made, you might measure the efficiency of the operation of the law according to some predetermined norm and then alter the precepts to accomplish more effectively the ends thought desirable. This would make law an *experimental science*. All three types of legal science have been considered by modern writers.

The first mentioned type, a descriptive science dealing only with the actions of judges, is most strongly supported by Keyser. Starting from the assumption that the decisions (the distinctive behavior) of judges are the focal point of law, he concludes that the science of law should consist of "categorical propositions describing the behavior of judges."³⁹ Analogous to Pareto's Sentiments are Keyser's "variables on which judicial behavior depends": (1) modes and forms of business; (2) manners, customs, and mores; (3) religious opinion and feeling; etc.⁴⁰

prudence of civil law" as including (1) systematic exposition of the legal system as it now is, (2) consideration of its historical development, and (3) a description of what law ought to be. Salmond, *Jurisprudence* (Stearns and Haynes, London, 1913), p. 3-6.

Real science of law (law in fact)

This is the plane on which this article deals with the science of law, the consideration of law as it operates. Within this class are suggested the three variations: (1) a descriptive science based on the actions of judges; (2) a descriptive science based on the actions of all those in touch with the law; and (3) an experimental science of law which seeks to describe the operation of law in society and later correct the defects found and make law more efficient.

³⁹ Keyser, *On the Study of Legal Science*, 38 YALE L. J. 416 (1929). Keyser presents his idea of a science of law based on judicial behavior in contrast with a "mathematical science" of law based on dealings in hypothetical propositions. *Ibid.*, p. 415, 420.

⁴⁰ *Ibid.*, p. 418.

He is not alone in his emphasis of the importance of the behavior of the judges, for writers who have considered the "judicial process" a distinctive and important phenomena point to the same conclusion as that reached by Keyser, i.e., a science of law must take into consideration the actions of judges.⁴¹ As long ago as 1897, Holmes mentioned that the fear of Socialism had influenced judicial decisions and suggested that such feelings might be the very root and nerve of an inarticulate and unconscious judgment which was hidden from view by a logically stated opinion.⁴² And, in the same vein, Cardozo has said that "history, or custom . . . or some compelling sentiment of justice or sometimes a semi-intuitive apprehension of the pervading spirit of the law" enters into the judge's judicial operation.⁴³

Philosophical and psychological considerations of the "judicial process" have led to an analysis similar to Pareto's. Dewey divided all human conduct into two classes: (1) action from routine, instinct, appetite or blind hunch; and (2) action

⁴¹ The fact that judges give lip service to *stare decisis* does not minimize the fact that the actions of judges are of primary import in shaping the law. "With us a precedent will govern a case 'on all fours.' But it may do much more. We distinguish it and limit it, or we extend its application and develop its principle." Pound, "Theory of Judicial Decisions," 36 HARV. L. REV. 64 (1923).

"Judges have made worthy, if shamefaced, efforts, while giving lip service to a rule, to riddle it with exceptions and by distinctions reduce it to a shadow." Cardozo, *The Nature of the Judicial Process, infra.*, p. 155. "The paradox of the situation is that granting there is value in a system of precedents, our present use of illusory precedents makes the employment of real precedents impossible. Rules are limited to the 'precise question' involved in the earlier case. Minute differences in the circumstances of two cases will prevent any arguments being reduced from one to the other." And the earlier case comes to mean only what the later judge says it does. Frank, *Law and the Modern Mind* (Bretano's, New York, 1930), p. 148-149.

⁴² Holmes, "The Path of the Law," *op. cit.*, p. 465, 467. "You can give any conclusion a logical form." *Ibid.*, p. 466. "The law never succeeds in becoming a completely deductive system. The law needs the logical use of concepts and an orderly and logical classification of legal relations. But it must be realized that such classification is not absolute and immutable." Cohen, "The Place of Logic in the Law," 29 HARV. L. REV. 622 (1916).

⁴³ Cardozo, *The Nature of the Judicial Process* (Yale Univ. Press, New Haven, 1921), p. 43.

based on experimental logic.⁴⁴ He sees in the written opinions of the judges an attempt to cover up actions of the first class and make them look like actions of the second class.⁴⁵ Expressed slightly differently, the psychologist sees in the judges' actions the conflict between the conscious and the subconscious motives of the judges, one seeking to conform with what he would have others believe he is doing, and the other seeking to express the judge himself.⁴⁶

Thus, there are those who would emphasize what judges do as a basis for a science of law and those who would apply an analysis of these actions similar to Pareto's, but the classification on which Pareto's analysis would be based makes the possibility of an exact descriptive science of judge law more real.

The second possible type of a legal science, a descriptive science involving the actions and reactions of all persons who come into contact with the law, is little more than a broadening of the first type with a shift of emphasis from judges in appel-

⁴⁴ Dewey, "Logical Method and the Law," 10 *Cornell L. Q.* 17 (1925). Dewey does not mean to minimize the importance of the instinctive or hunch actions, for he says, "long brooding over conditions, intimate contact associated with keen interest, thorough absorption in a multiplicity of allied experiences, tend to bring about those judgments which we call intuitive; but they are true judgments because they are based on selection and estimation with the solution of a problem as a controlling standard." *How We Think* (Heath & Co., New York, 1910), p. 105.

⁴⁵ Dewey, "Logical Method and the Law," *op. cit.*, p. 24. "The language of the judicial decision is mainly the language of logic. And the logical method and form flatter the longing for certainty which is in every human mind. But certainty is generally an illusion." Holmes, *Collected Legal Papers, op. cit.*, p. 181.

A judicial "syllogism sets forth only the results of thinking." Dewey, "Logical Method and the Law," *op. cit.*, p. 22.

⁴⁶ Schroeder, "Psychologic Study of Judicial Opinions," 6 *CAL. L. REV.* 90 (1918).

"Human motives and mental mechanism are not altered when one assumes the judicial function." *Ibid.*, p. 89. "Our logical thinking is not separated, as by a Chinese wall, from other psychological processes, such as willing, feeling, remembering, etc.; instead, there is a constant play of influences exerting themselves from these directions upon our thinking, yet not sufficient to destroy the logical character in the formation of concepts." Wurzel, "Judicial Thinking," *Science of Legal Method* (Boston Book Co., Boston, 1917), p. 339.

late courts to all the persons who influence the administration of the law. Though not actually advocating a science of law based on this broad concept, Llewellyn and Frank point out that law in action includes a great deal more than judicial decisions. Llewellyn takes the spotlight off judicial opinions and the rules they state by proposing that we look at "words about law" only to see the behavior they represent.⁴⁷ And the behavior on which the operation of these rules depends is the behavior of judges, jurymen, administrative officials, and laymen.⁴⁸ Frank accepts the same broad, realistic view of what goes to make up law.⁴⁹

These men seek only to present a true picture of the operation of the law. They want to show what facts exist without evaluating them or suggesting reform. Any science of law based on their concepts would be a descriptive or analytical science like Keyser's, but it would have a much broader subject matter.

Law as an experimental science is the goal of Yntema. He realizes the need of the broad basis of a concept of law which is set up by Llewellyn and Frank, but he would go further. He would seek to build up a body of scientific information respecting the actual operation of law,⁵⁰ and on the basis of such information, he would seek to reform the law to conform to some selected norm.⁵¹ This study of law would be continuous, and

⁴⁷ Llewellyn, *op. cit.*, p. 443.

⁴⁸ *Ibid.*, pp. 456-7. Real rules and paper rules must be distinguished. "Real rules" are the practices of the court, what the courts do and what persons dealing with the law try to do, and "paper rules" are the accepted doctrines of the time and place. You must seek to determine how far a paper rule is real. *Ibid.*, pp. 447, 450.

⁴⁹ Frank, "What Courts Do in Fact," 26 ILL. L. REV. 658 (1932).

⁵⁰ Yntema, "Legal Science and Reform," 34 COL. L. REV. 207 (1934). What is needed, says Yntema, is "a judicial census, a judicial clinic, and an institute of legal research." *Ibid.*, p. 222.

⁵¹ *Ibid.*, p. 228. "Law is a relation of life, it is a coordination, a limit, a guarantee of social relations, and its vigor and its real significance must be directly deduced from an examination of life itself and of its coordination, not from formulas which are more or less approximate, often fallacious and always incomplete." Del Vecchio, "The Crisis of the Science of Law," 8 TULANE L. REV. 321 (1934).

as new precepts and concepts were needed, they could be tried.⁵² If the new information showed that they were working properly, they could be incorporated into the law. If not, they could be discarded. Reform would be effected through the legislative, administrative, and judicial departments. But before this is possible, there must be an objective survey of what goes on in the name of the administration of justice.⁵³ In such survey, where "what is" is temporarily divorced from "what ought to be," the classifications of Pareto would be applicable.

In a more general and inexact manner, Radin also sees the possibility of an experimental science. He recognizes two characteristics in a judge: (1) the arbiter; and (2) the judge applying accepted legal concepts.⁵⁴ In expressing these two personalities, the judge must temper the concepts on which the law insists with a realistic knowledge and consideration of the situation to which the decision is to refer.⁵⁵ Experimentation would be substituted for *stare decisis*, and past decisions would be experiments rather than binding precedents.

Pareto looked at the acts of men disregarding the norm on which they might be based. He discarded the concept, time-honored in the social sciences, that men acted on the basis of experimental logic and sought to explain their acts, or the greater portion of them, as non-experimental. He took certain fundamental characteristics of men's non-experimental acts to be representative of the motivating forces of men and so of society. He divorced these acts from what men said to explain

⁵² Holmes said long ago, "You must look to the practical effect of law and build and develop your law to fit the facts found and the desirable social end." "Law in Science and Science in Law," 12 HARV. L. REV. 443 (1899).

⁵³ Yntema, "Legal Science and Reform," *op. cit.*, p. 219. A "disinterested, continuous, informed study is needed to establish a body of scientific information respecting the actual operation of law; . . . without such information, legal scholarship will remain esoteric and law reform ineffective." *Ibid.*, p. 221.

⁵⁴ Radin, "The Chancellor's Foot," 49 HARV. L. REV. 44 (1935).

⁵⁵ *Ibid.*, pp. 64-65.

them. Next, he classified the non-experimental acts, the motivating forces, and the explanations so that any subsequent knowledge concerning them might be placed in the proper categories.

In the light of the authorities considered above, it seems that the ideas of Pareto have a place in the scientific approach to law, and when applied quantitatively and analytically to the acts of all those persons who have to do with the law, or perhaps only those of judges, they should serve to clarify the nature of law.