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THE MEANINGS OF ECONOMIC LAW

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A thesis presented to the Faculty of the Graduate School of Business Administration, New York University, in partial fulfillment of the requirements for the degree of Doctor of Philosophy.



## PREFACE

It is a distinct source of satisfaction to be able to present to New York University this dissertation entitled "The Meanings of Economic Law." It covers a subject, which though close to the heart of economic theory, has been long neglected in the journals. It presents, for the first time in a single work, an orderly compilation of the many notions that economists have held about law, and attempts to sound out the underlying reasons for and the logic behind such a variety of opinions, perhaps suggesting an answer to that tantalizing question as to whether there are economic laws after all.

To accomplish this task it was necessary to research large samplings of the literature of two centuries, at least of that part that is available in English. Unfortunately, it was not possible to broaden this investigation to analyze terms other than law, which might be used to describe the generalizations of economics. Nor could a complete epistemological study be made at this time of what economic law "should" really mean. Hopefully, such studies will not be long in forthcoming.

The author wishes to express his utmost thanks to Professors Robert A. Kavesh and Joseph S. Keiper of New York University, who over many years have been an inspiration

New. 28. 80 done "Dr. Joseph S. Keiper" \$ 35.00

both in the classroom and out. Likewise, a sincere word of appreciation is due the memories of the late Ludwig Von Mises and Herman Krooss, who long ago prepared the ground for this endeavor. Its most immediate guide, however, has been Professor Israel Kirzner, who shared with the writer his vast store of culture and tirelessly ploughed through the manuscript from the formative stages. The writer, however, accepts full responsibility for the omissions and inaccuracies in the text.

Neither could this study have been completed without the assistance of Father Edward and his staff at Salesian Missions, who provided me with the facilities in which to work, to my own Universidad Francisco Marroquin in Guatemala, for extending me the necessary time off, as well as to the Alpha Kappa Psi Foundation for generously awarding me its first fellowship award. Immense thanks are also due to Joan Senno, who graciously undertook the laborious task of typing the manuscript, to Elaine Restieri and staff, who helped tie together the many loose ends, and to Maria Auxiliadora, without whose help nothing would have been accomplished.

It is hoped that this first attempt at a synthesis of economic law will spark a renewed interest on the part of economists in the study of the epistemology of the science.



This will help carry on the tradition long followed by Cairnes, Neville Keynes, Menger, Jevons, Mises, and many other pathbreakers in economics.

September, 1976

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## CHAPTER I

### ECONOMIC LAW TODAY - PREVIEW

...But you can recollect as well as I can, when a deputation of us went up to a member of parliament--one that was reputed a philosopher, and a political economist, and a liberal--and set before him the ever-increasing penury and misery of our trade and of those connected with it; you recollect his answer--that, however glad he would be to help us, it was impossible--he could not alter the laws of nature--that wages were regulated by the amount of competition among the men themselves, and that it was no business of government, or any one else, to interfere in contracts between the employer and employed, that those things regulated themselves by the laws of political economy, which it was madness and suicide to oppose. He may have been a wise man. I only know that he was a rich one. Every one speaks well of the bridge which carries him over. Every one fancies the laws which fill his pockets to be God's laws. But I say this: If neither government nor members of parliament can help us, we must help ourselves. Help yourselves, and Heaven will help you. Combination among ourselves is the only chance. One thing we can do--sit still."

"And starvel" said some one.

"Yes, and starvel Better starve than sin. I say, it is a sin to give in to this system. It is a sin to add our weight to the crowd of artisans who are now choking and strangling each other to death, as the prisoners did in the black hole of Calcutta.



Let those who will, turn beasts of prey, and feed upon their fellows; but let us at least keep ourselves pure. It may be the law of political civilization, the law of nature, that the rich should eat up the poor, and the poor eat up each other. Then I here rise up and curse that law, that civilization, that nature. Either I will destroy them, or they shall destroy me.

Charles Kingsley,  
Alton Locke, Tailor and Poet,  
An Autobiography<sup>1</sup>

Such was the legacy of fear bequeathed by the inexorable laws of economics, as recounted by a novelist of the mid-nineteenth century. It was the "dismal" science of political economy that allegedly spawned such notions upon mankind. However, about the same time in history, we find another author emphatically telling us that:

The general laws of the social world are harmonious, and they tend in all respects toward the improvement of mankind.<sup>2</sup>

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<sup>1</sup> Charles Kingsley, Alton Locke, Tailor and Poet, An Autobiography (Harper & Brothers, N. Y. 1858). Republished by (Scholarly Press, Inc., St. Clair Shores, Mich., 1972). pp. 99-100.

<sup>2</sup> Frederic Bastiat, Economic Harmonies, trans. W. Hayden Boyers, George B. de Huzar (Ed.), (D. Van Nostrand Co., Princeton, N. J., 1962), p. 395. Original edition: Les Harmonies Economiques (Guillaumin, Paris, 1850).

Authors like McCulloch and Carey were extolling the beneficence of the laws of economics, while a Cliffe Leslie or a Thorold Rogers would be denouncing their fallacies.

Yet the greatest economist of the mid-century was able to make the following statement:

Happily, there is nothing in the laws of value which remains [1848] for the present or any future writer to clear up; the theory of the subject is complete.<sup>3</sup>

In the meantime, there was growing opposition to the rigidity of the classical laws on the part of the Socialists and the historical economists. In the eighties, one of the greatest of the methodological debates in the history

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<sup>3</sup> John Stuart Mill, Principles of Political Economy with Some of their Applications to Social Philosophy, Sir W. J. Ashley (Ed.), (Longmans, Green, and Co. London, 1910), p. 436. This will be referred to as the Ashley edition. Reference will also be made to John Stuart Mill, Principles of Political Economy, abridged, with critical, bibliographical, and explanatory notes, and a sketch of the History of Political Economy, by J. Laurence Laughlin; (D. Appleton and Co., New York, 1910). This will be used for some interesting comments on economic laws by Laughlin; it will be referred to as the Laughlin edition. Original edition 1846.

of the science was held between Carl Menger<sup>4</sup> of Austria and Gustavus Schmoller<sup>5</sup> of Germany, Menger upholding the validity of theoretical laws and Schmoller opposing them. After the end of the Methodenstreit, however, tempers calmed and general discussion of the role of laws in economics eased up. In the thirties of this century, discussion temporarily revived in the debate between Lionel Robbins<sup>6</sup> and T. W. Hutchison,<sup>7</sup> until the advent of the Keynesian revolution absorbed the attention of the economic world.

If one were to browse through a modern textbook of

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<sup>4</sup> Carl Menger, Problems of Economics and Sociology, Louis Schneider (Ed.), trans. Francis J. Nock (University of Illinois Press, Urbana, 1963); translation of Untersuchungen über die Methode der Socialwissenschaften und der Politischen Oekonomie insbesondere (Duncker and Humblot, Leipzig, 1883).

<sup>5</sup> Gustav Schmoller, "Zur Methodologie der Staats- und Sozialwissenschaften," Jahrbücher Für Gesetzgebung Verwaltung und Volkswirtschaft im Deutschen Reich (1883), Vol. VII, pp. 965-994.

<sup>6</sup> Lionel Robbins, An Essay on the Nature and Significance of Economic Science, 2nd ed., (The Macmillan Press, Ltd., London, 1935).

<sup>7</sup> T. W. Hutchison, The Significance and Basic Postulates of Economic Theory (Macmillan & Company, Ltd., London, 1938). Reprint: (Augustus M. Kelley, New York, 1960).

economics, he would hardly be aware of the emotion and confusion of the debate over economic law that once rocked the European economists. Nor would he suspect that there persist even today divergent sets of views on the subject. He might find a more or less detailed account of the laws of supply and demand or of diminishing returns, but, in general, they appear as micro-fillers in a welter of weightier macro-problems that today concern the profession.

In view of the fact that the question of economic law has in recent years receded into the background, the purpose of this paper is to bring the subject once again frontstage where we will be able to take another look at the meanings economic law has had. What do economists think about it? Are they in agreement over the meanings of law? Do they believe that economic laws as such exist and, as some have maintained, do they have sanctions?

It is not the intention here to determine whether or not to revive any particular notion of economic law, nor is an airtight definition sought. Rather, our discussion is limited to an exposition of how economists think and why they think as they do. To others is left the task of breakthrough and reconciliation. Nor is it the purpose of this paper to get overly involved in discussions of epistemology; these are subjects with a long history of controversy,

and one does not want to succumb to Schumpeter's "Methodological Hypochondria".<sup>8</sup>

A decade ago the American accounting profession was all astir over an intramural discussion of the very nature of the principles of accounting. Because of this concern with what accounting "truth" was all about, the Research Board of the American Accounting Association came out with several publications whose purpose was to put some order into this aspect of accounting thought.<sup>9</sup> Just what was an accounting principle and how does it differ from a postulate or an axiom or a law? All accountants were well familiar with the approximate meaning of the phrase "generally accepted accounting principles", so recognizable by anyone who looks at certified financial statements. But they were unable to agree upon the ultimate meaning of the word "principle". Was or was not accounting something like geometry, wherein one could deduce certain

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<sup>8</sup> Joseph A. Schumpeter, History of Economic Analysis, Ed. Elizabeth Boody Schumpeter (Oxford University Press, New York, 1954).

<sup>9</sup> cf. Maurice Moonitz, "The Basic Postulates of Accounting, Accounting Research Study, No. 1" (The American Institute of Certified Public Accountants, New York, 1961); and Robert T. Sprouse and Maurice Moonitz, "A Tentative Set of Broad Accounting Principles for Business Enterprises, Accounting Research Study No. 3" (The American Institute of Certified Public Accountants, New York, 1962).

conclusions by reasoning from given premises? And by what title do these basic conclusions go: laws or principles or axioms, postulates, or whatnot?

Unfortunately, fortune did not smile upon these attempts to organize the fundamental body of accounting theory. The several excellent studies produced by the Board never evoked professionwide support and, to this writer's knowledge, the whole problem still lies unresolved in the archives of the Board and the minds of the philosopher-accountants.

Looking upon this controversy from across the campus, the economist wonders whether or not he can take any comfort from the difficulties of the accountants. One might ask the question as to whether the very same problem exists within economics, and more alarmingly, whether it remains likewise unattended and unsolved. One has but to glance at the titles on the 330 shelf of any Dewey-style library to see with great frequency the words "principle" or "theory", or to run down the index of any text to discover a listing of the most famous laws of economics. Further research would indicate that not much space is given in the texts to a discussion in general of what economic laws or principles (or for



that matter postulates or theories or axioms) are, and what they mean to tell us. One has the suspicion that the economic house of epistemology needs some spring cleaning, along with that of the accountants. Perhaps economists customarily use the terminology alluded to more out of habit or deference to history than out of an intention to confer a precise meaning to these words.

But the question is really larger - and perhaps more fundamental. A more basic problem is what type of "truth" does accounting or economics or any science generate for us. What are these truths in the case of economics? How do we state them? Can they be stated in a simple declarative manner, and then what does one call these statements, laws, or principles, or theory, or whatnot? Just what are the regularities of economics that result from much painstaking study? How do we express the "tooled knowledge" of our science, to use Schumpeter's term?

Again, one is tempted to plunge wholeheartedly and with abandon into the broader aspects of this problem. Such a task would involve a detailed study of economic methodology, as well a revival of long-buried controversies. This paper reserves for itself a simpler task. To in-

investigate just what are the meanings of economic law, and to inquire how some economists employ the term law and why they do. It is not proposed to get involved in the philologic discussions that hampered the Accounting Research Board.

One way to assess the status of economic law is to review the treatment in a modern textbook, such as Paul Samuelson's.<sup>10</sup> Samuelson does not devote a special section of his book to define the concept of economic law or to distinguish between theory, principles, axiom, or law. However, he does list fourteen of the traditional laws of economics in the course of the text. Of these, three appear with the rubric "law" only in the title of the section, the word "law" itself not reappearing in the body of the text. In another three instances "law" is used merely as an epithet. For example, he describes "what is often called Bowley's Law",<sup>11</sup> or "what is known as Gresham's Law".<sup>12</sup> The "Law of Comparative Advantages" is called "law" in the section title, but is referred to as "principle" in the text.

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<sup>10</sup> Paul A. Samuelson, Economics, 6th ed., (McGraw-Hill Book Co., Inc., New York, 1964).

<sup>11</sup> ibid., p. 736.

<sup>12</sup> ibid., p. 641.

It is clear that Professor Samuelson does not judge it worthwhile to nail down the customary terminology in this area; thus his inexactitude only tends to obscure what he considers economic law to mean. For one thing, he uses "law" both when he describes an "important, often-observed, economic and technical regularity" (the Law of Diminishing Returns) as well as when he feels that the law contains only a "germ of truth" (Comparative Advantages). In these cases one gets the impression that the word "law" is merely epithetic - the terminology being retained regardless of whether or not the proposition is believed to be true in whole or in part or not at all. At only one point does he venture into a discussion of whether laws are something real - when he briefly argues against the position that "You can't repeal the law of supply and demand".<sup>13</sup>

Also it appears - and this seems to corroborate the idea that Samuelson does not attach critical content to the term law - that recent economic developments have not contributed at all to the Corpus Juris Oeconomici.

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<sup>13</sup> ibid., p. 385.

None of the recent macroeconomic advances, for instance, have been classified as "law". Nor perhaps would anyone contend that the Phillips Curve represents a graphical portrayal of the "law" governing the tradeoff between inflation and employment. Neither have any of the contributions of the mathematical and econometrical economists been classified as law. In fact, it seems that the concept is almost exclusively reserved to the heritage of the 19th Century classics.

If we turn from Samuelson to another popular textbook, this time European, we find in Stonier and Hague<sup>14</sup> the same essential lack of clarity on the subject of economic law. At one point laws are equivalent to theories.<sup>15</sup> In the section on the "Law of Diminishing Returns" the word "law" appears in quotes, and it is defined as a statement of tendency; later Diminishing Returns is called a "theory". The authors also state that laws are deduced from assumptions.<sup>16</sup>

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<sup>14</sup> L. W. Stonier and D. C. Hague, A Textbook of Economic Theory, 1st ed., (Longmans, Green, and Co., London, 1953).

<sup>15</sup> ibid., p. 4.

<sup>16</sup> id.

If we examine their use of "law" from the point of view of credibility, we find that the "Law of Diminishing Returns" depends on diminishing marginal productivity, which "is probably not so ubiquitous as some earlier economists seem to have thought".<sup>17</sup> That is to say that the "law of eventually diminishing marginal productivity need not always hold either".<sup>18</sup> The "Iron Law" of wages is no longer accepted. The authors do give substantial space to a discussion of Say's Law, seemingly arguing with Keynes that it is not a correct description of the real world.

Also it is interesting to note that certain "laws" are totally absent in Stonier and Hague. Demand and Supply do not appear as laws; also absent are Bowley, Pareto, Gresham, King, as well as Comparative Advantage. This is in part due to the fact that their text is much smaller than is Samuelson's. We find in conclusion substantially identical treatment of this subject in the two authors.

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<sup>17</sup> ibid., p. 224.

<sup>18</sup> ibid., p. 230.

A diametrically opposed view can be found in the textbook Man Economy and the State by Murray Rothbard.<sup>19</sup> This author also does not devote space to an epistemological discussion of law in general, just as Samuelson and Stonier and Hague did not. Nevertheless, his meaning of what law is comes out very clearly in his discussion of various instances of law. He defines, for example, the "Law of Returns" thus: "The Law of Returns states that with the quantity of complementary factors held constant, there always exists some optimum amount of the varying factors."<sup>20</sup> He states that the concept is not to be limited only to increasing returns or decreasing returns, but is totally general and is proved by contemplating the implications to the contrary. He further adds that this law is "always valid". It is "an eternal truth of human action". Rothbard not only indicates a clear meaning of law here, but also definite methodological and epistemological criteria for deriving laws and interpreting them.

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<sup>19</sup> Murray Rothbard, Man Economy and the State (Van Nostrand Publishing Co., Inc., Princeton, 1962).

<sup>20</sup> ibid., p. 30.



Another example Rothbard gives of this type of analysis is seen in his treatment of the law of marginal utility. He first states that this law is deduced from the axiom of action. And he concludes: "No one can predict with certainty the course of his (the actor's) choices except that they will follow the law of marginal utility".<sup>21</sup>

He also gives us a law of interest, which states that a lower pure rate of interest increases the quantity and value of capital goods available.

Also Rothbard has definite criteria for what laws are NOT. Malthus' Law of Population cannot be called "law" because it concerns an empirical question, which "cannot be answered by economic theory."<sup>22</sup> There can only be qualitative and not quantitative laws.<sup>23</sup> Finally, one must distinguish between economic laws as such and non-existent laws of history, as Rostow's treatment of the stages of history, wherein he contends that each stage of economic development is subject to its own laws.

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<sup>21</sup> ibid., p. 28.

<sup>22</sup> ibid., p. 508.

<sup>23</sup> ibid., p. 496.

Rothbard also discusses similarly the Law of Comparative Advantage, the Law of Constant Returns to Scale, and Gresham's Law.

It will be important to carefully examine Rothbard's contentions on the nature and meaning of law, in order to state precisely the difference in concept between his and other points of view.

Thus it is clear that the concept of Economic Law does not have clear univocal content in the minds of modern economists. One is never certain whether the term is used in a precise sense, whether it is merely epithetic and not intended to convey any unequivocal meaning, or whether employment is divided between the two contrary usages.

For those economists who use the term in the first sense above, we would expect a law to be the expression of some persistent regularity, unerringly present in some economic aspect of human affairs. For those who use the term in a looser sense, we would expect that they envision no such unerring regularity to be possible in the social sciences, and that the term is retained merely because it has always been used, and that no precise epistemological restrictions apply to it. Finally,

for those economists who are inconsistent in their adherence to the term, using it one time in a strict sense and another as a general traditional way of saying things, it is just as well that a study of the problem be made to refine our use of concepts. In any case, the results of an investigation should indicate the extent to which differences exist between the various meanings of "law" in the literature.

Very little has been written about economic laws, in a general sense, in recent years, although articles occasionally appear concerning specific laws. Trygve Haavelmo published a seminal work in 1944, in which he described "The Probability Approach in Economics."<sup>24</sup> Chapter II was entitled "The Permanence of Economic Laws." He offered a masterful exposition of the theory of probability. Unfortunately, he was taken to task by his non-mathematical colleagues who were not able to comprehend him. In any case, a more general treatment was needed.

The next year Frank Knight spoke at the American

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<sup>24</sup>Trygve Haavelmo, "The Probability Approach in Economics", published as a supplement to Econometrica, (July 1944), Vol. XII.

Economic Association meeting in an address entitled:  
"Immutable Law in Economics: Its Reality and Limitations".<sup>25</sup>  
Knight had intended to make a monumental contribution,  
but succeeded in not much more than restating the princi-  
pal conclusions of economic theory. Disappointed he  
confessed that it was "impossible to make a complete or  
definite list of economic laws."

Two years later, Paul Douglas, in a major article  
queried: "Are There Laws of Production?"<sup>26</sup> Douglas  
happily concluded that the evidence "fairly clearly  
suggests that there are laws of production which can be  
approximated by inductive studies and that we are at  
least approaching them."<sup>27</sup> At least, this was an optimistic  
note.

Since then not much has been said on the general  
subject of economic law. It is appropriate then that an  
updating be made on the meanings of law. Chapter II will  
outline how it is planned to organize this study.

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<sup>25</sup> Frank H. Knight, "Immutable Law in Economics: Its  
Reality and Limitations," American Economic Review, Papers  
and Proceedings (May, 1946) Vol. XXXVI, No. 2, pp. 93-111.

<sup>26</sup> Paul H. Douglas, "Are There Laws of Production?" Ameri-  
can Economic Review (March, 1948) Vol. XXXVIII, No. 1, pp. 1-41.

<sup>27</sup> ibid., p. 21.

## CHAPTER II

### ECONOMIC LAW UNDER ANALYSIS

Older economists have been inclined to believe in an ordre naturel and to regard economic laws as valid theoretically as well as constituting moral norms and positive descriptions of actual economic life. As late as in Cassel, we come across the raised forefinger: do not sin against the economic laws - a warning directed against the interference of the state.

Frederick Zeuthen,  
Economic Theory and Method<sup>1</sup>

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<sup>1</sup> Frederick Zeuthen, Economic Theory and Method (Harvard University Press, Cambridge, Mass., 1955), p. 21.

The purpose of this chapter is to lay out a roadmap for the analysis that follows and help explain to the reader how and why the term economic law has followed several distinct highways through diverse philosophical terrain. Some of these routes, like the Marxian, are broad clear avenues, others are mere footpaths, others but in the project stage. Each route has its own special roadbed, its blend of assumptions, which combined with special methodological techniques, has paved its distinct conceptual base. The rough topology requires one to tunnel clarifying definitions, and to span its ravines of discontinuous data. The scenery includes as diverse features as Lassalle's "Iron Law of Wages" and Say's Law. Some of the roads had their origin in the natural law hinterlands of the Enlightenment. There are several junctions where philosophy and analysis crisscross, before each avenue seemingly leads us to its own Rome of economic knowledge.



Nor are we sure that our path is always traversing the homeland of economics, as our borders are not well enough defined; even our best guides are not agreed where economics ends and history, psychology, sociology, or politics begin.

In order to organize our study, it will be necessary to review:

(1) which economists will best serve as guides in this analysis of economic law;

(2) how to sift out of the many usages of law in the social sciences those that will give us some idea of what scientific law means;

(3) those historical factors that have profoundly influenced the formation of concepts of economic law; and

(4) how best to organize this study so as to accomplish our objective of pinpointing the various meanings of economic law and the philosophical implications of these differences.

The subject which tells us about how economic or other science goes about its analysis, how it utilizes its postulates and assumptions, and logically develops the conclusions it reaches is often called methodology. It

provides the underpinnings of the science and is concerned with the forms rather than the content of the analysis. The two generally known "methods" are deduction and induction.

In this paper we will not be primarily interested in methodology per se, but rather in a broader science which includes methodology as a subdivision. This science is called epistemology; it is the study of knowledge, in our case the knowledge we obtain in economics. In epistemology one wants, in general, to determine how valid our knowledge is, and what we really know, and how sure one can be of it. In our case we want to know what economists have thought an economic law is and what qualities can be attached to an economic law, as they have proposed the concept. Is it universal, absolute, unchanging? Or is it historical, provisional, more or less exact? It will not be our object to determine any "true" or "correct" answers to these questions; our investigation will be limited to the meanings expressed or implied by different economists.

We will thus be dealing principally with some aspects of economic epistemology in this paper -- or more precisely

with that portion of epistemology which analyzes the "law-like" statements entering into or resulting from economic analysis. We want to determine what different economists have meant by the term economic law.

Economics has the distinction of having within its ranks scientists who not only wrote standard books on economics proper, but also have distinguished themselves in epistemology; among them have been John Stuart Mill,<sup>2</sup> Jevons,<sup>3</sup> Cairnes,<sup>4</sup> Menger,<sup>5</sup> Von Mises,<sup>6</sup> and Schumpeter.<sup>7</sup> Also living are Hayek,<sup>8</sup> Friedman,<sup>9</sup> and Kirzner,<sup>10</sup> Other

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<sup>2</sup>John Stuart Mill, A System of Logic, Ratiocinative and Inductive, Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation, 2d ed., (J.W. Parker, London, 1846). Original edition: 1843.

<sup>3</sup>William Stanley Jevons, The Principles of Science, A Treatise on Logic and Scientific Methods, 2nd ed., rev. (Macmillan & Co., London, 1877). Original edition: 1873.

<sup>4</sup>John E. Cairnes, The Character and Logical Method of Political Economy, 2nd ed.. (Harper & Brothers, New York, 1888), reprinted by Augustus M. Kelley, New York, 1965. Original edition: 1875.

<sup>5</sup>Carl Menger, Problems of Economics and Sociology, Louis Schneider (Ed.), trans. Francis J. Nock, (University of Illinois Press, Urbana, 1963). Original edition: Untersuchungen über die Methode der Sozialwissenschaften und der Politischen Oekonomie insbesondere. (Duncker and Humblot, Leipzig, 1883),

economic epistemologists have been Hutchison,<sup>11</sup> Robbins,<sup>12</sup> Mehta,<sup>13</sup> Fraser,<sup>14</sup> and Lowe.<sup>15</sup> These authors have much to say about the logical underpinnings of economic knowledge.

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(Continued)

<sup>6</sup> Ludwig Von Mises, Human Action: A Treatise on Economics (Yale University Press, New Haven, 1949); revision of Nationalökonomie: Theorie des Handelns und Wirtschaftens, (Editions Union Genf, Geneva, 1940). Epistemological Problems of Economics, trans. George Reisman, (D. Van Nostrand Company, New York, 1960); original edition: Grundprobleme der Nationalökonomie: Untersuchungen über Verfahren, Aufgaben und Inhalt der Wirtschafts- und Gesellschaftslehre, (Gustav Fischer, Jena, 1933). Ultimate Foundations of Economic Science: An Essay on Method, (D. Van Nostrand Company, Princeton, N.J., 1962). Theory and History: An Interpretation of Social and Economic Evolution, (Arlington House, New Rochelle, N.Y., 1969); original edition: (Yale University Press, New Haven, 1957).

<sup>7</sup> Joseph Alois Schumpeter, Economic Doctrine and Method: An Historical Sketch, trans. R. Aris (Oxford University Press, Inc., New York, 1954); original edition: Epochen der Dogmen- und Methodengeschichte; 1914. History of Economic Analysis, op. cit.

<sup>8</sup> Friedrich von Hayek, Individualism and Economic Order (University of Chicago Press, Chicago, 1948). The Counter-Revolution of Science: Studies on the Abuse of Reason, (Free Press, Glencoe, Ill., 1952). Studies in Philosophy, Politics, and Economics (University of Chicago Press, Chicago, 1967).

<sup>9</sup> Milton Friedman, Essays in Positive Economics. (University of Chicago Press, Chicago, 1953).

<sup>10</sup> Israel M. Kirzner, The Economic Point of View (D. Van Nostrand Company, Princeton, 1960).

<sup>11</sup> T. W. Hutchison, op. cit.

<sup>12</sup> Lionel Robbins, op. cit.

The vast majority of economists, however, have not devoted extended attention to the epistemological aspects of the science. Many of them, like Knight and J. B. Clark, write about the meanings and applications of economic laws in an orderly and thorough manner. Others haphazardly at random. It is often impossible to deduce from the writings of these economists just what their concept of law really was. Often, it will be seen, usage of the term has not been consistent. In many economic treatises it hardly appears at all. In many instances the most that can be done will be to seek some negative inference, as it were, by analysis of the term in its absence.

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<sup>13</sup> J. K. Mehta, A Philosophical Interpretation of Economics. (Allen & Unwin, Ltd., London, 1962).

<sup>14</sup> L. M. Fraser, Economic Thought and Language, A Critique of Fundamental Economic Concepts (Adam and Charles Black, Ltd., London, 1937).

<sup>15</sup> Adolph Lowe, On Economic Knowledge, Toward a Science of Political Economy, 1st ed. (Harper and Row Publishers, Inc., New York, 1965).

In order to reduce the scope of this paper, account has been taken only of those authors who have written in English, or whose works are generally available in English translations. It is only proper, however, to cite some of the relevant continental writers of the nineteenth and early twentieth century who contributed to this discussion.

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- <sup>16</sup> Gustav Cohn, System der Nationalökonomie (F. Enke, Stuttgart, 1885-98). C. Knies, Die politische Oekonomie vom Standpunkte der geschichtlichen Methode (Braunschweig, 1853). Wilhelm Dilthey, Einleitung in die Geisteswissenschaften, published in Gesammelte Schriften (Teubner, Stuttgart, 1961-1966). Original edition 1883. Bruno Hildebrand, Die Nationalökonomie der Gegenwart und Zukunft und andere gesammelte Schriften, Hans Gehrig, (Ed.) (Gustav, Fischer, Jena, 1922); original edition (J. Rütten, Frankfurt a. M., 1848). C. Knies, Die politische Oekonomie vom Standpunkte der geschichtlichen Methode (Braunschweig, 1853). E. Kuntze, Der Wendepunkt in der Rechtswissenschaft (Leipzig, 1856). Karl Menger, Die Irrthümer des Historismus in der Deutschen Nationalökonomie (A. Holder, Vienna, 1884); see Carl Menger in bibliography for other works. Heinrich Rickert, Kulturwissenschaft und Naturwissenschaft (J.C.B. Mohr - P. Siebeck, Tübingen, 1910). Emil Sax, Das Wesen und die Aufgaben der Nationalökonomie (A. Holder, Vienna, 1884). Gustav Friedrich von Schmoller, Über einige Grundfragen der Sozialpolitik und der Volkswirtschaftslehre, (Dunker & Humblot, Leipzig, 1898). Georg Simmel, Die Probleme der Geschichtsphilosophie, Eine Erkenntnistheoretische Studie, 4th ed., (Dunker and Humblot, Munich & Leipzig, 1922). Adolf Wagner, Theoretische Sozialökonomik (C. F. Winter, Leipzig, 1907-1909). Friedrich von Gottl-Ottlilienfeld, Zur Sozialwissenschaftlichen Begriffsbildung (J.C.B. Mohr - P. Siebeck, Tübingen, 1906); Wirtschaft als Leistung (G. Fischer, Jena, 1926).



## Law in the Natural and Social Sciences

The concept law dominates a large area of human culture, including jurisprudence, natural science, and the social sciences. Among the many subdivisions can be singled out political law, the law of nations, moral law, natural law, historical law, logical law, and scientific law. It is the latter that is of especial interest to us, though we will not be able to disengage entirely from other meanings of law.

It is the concept of scientific law that had captured the imagination of the nineteenth century economists.<sup>16a</sup>

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<sup>16a</sup> For an excellent analysis of the meaning of science at the turn of the century see several articles by Veblen reprinted as: Veblen, Thorstein, The Place of Science in Modern Civilization and Other Essays (The Viking Press, Inc., New York, 1942); original edition: (B.W. Huebsch, New York, 1919); see especially: "The Place of Science in Modern Civilisation", pp. 1-31, originally printed in The American Journal of Sociology (March 1906), Vol. XI; "The Evolution of the Scientific Point of View," pp. 32-55, originally printed in The University of California Chronicle, Vol. X, No. 4. See also Frank Knight's "The Limitations of Scientific Method in Economics", The Trend of Economics, Rexford Guy Tugwell (Ed.), (F.S. Crofts Company, Inc., New York, 1930); also published in Frank H. Knight, The Ethics of Competition and Other Essays (Books for Libraries, Inc., Freeport, N.Y., 1969); original edition; (Harper and Brothers, New York, 1935).

It became the vogue to engage in social theorizing after the fashion of the physical scientists. The classic model was Sir Isaac Newton (1642-1727) whose laws of mechanics<sup>17</sup> had heralded great advances in the physical sciences; they were the most general explanations of matter and force to that date, and remained in vigor until absorbed by Einstein's relativity theory in this century.<sup>18</sup> The social scientists, too, wanted to share in the triumphs of their counterparts.

John Stuart Mill considered the physical sciences to be the proper models for economic theory.

Wilhelm Roscher would "describe things as they are, 'after the manner of the investigator of nature'."<sup>19</sup>

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<sup>17</sup> Newton's laws of motion are:

Law I. Every body perseveres in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed thereon.

Law II. The alteration of motion is ever proportional to the motive force impressed, and is made in the direction of the right line in which that force is impressed.

Law III. To every action there is always opposed an equal reaction: or the mutual actions of two bodies upon each other are always equal, and directed to contrary parts. Quoted by Ernest Nagel, The Structure of Science (Harcourt, Brace & World, Inc., New York, 1961), pp.158-159.

<sup>18</sup> Nagel, op.cit., pp. 267-276.

<sup>19</sup> Schumpeter, History....., pp. 537, 540.

<sup>20</sup> ibid, p. 540.

Marx wanted to call his socialism 'scientific'.

Thus the regularities of the socio-economic world would be explained by laws as scientific as those of the material physical world. We can speak of Malthus' law of population or the law of comparative costs. The concept law literally impregnated the writings of economists for nearly a century. One has only to thumb a few pages of John Bates Clark,<sup>20</sup> Marshall,<sup>21</sup> Wicksteed,<sup>22</sup> or John Neville Keynes<sup>23</sup> to see plentiful evidence of this. The laws they posed were meant to express certain relationships between one real variable and another; such, for example, is the famous law of returns, which states a definite relationship between the quantity of a single input and that of the ensuing output.

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<sup>20</sup> John Bates Clark, The Distribution of Wealth, A Theory of Wages, Interest, and Profit (Kelley & Millman, Inc., New York, 1956). Original edition: 1899.

<sup>21</sup> Alfred Marshall, Principles of Economics, 9th (variorum) ed., with annotations by C. W. Guillebaud (Macmillan Publishing Company, Inc., New York, 1961). Original edition: 1890.

<sup>22</sup> Philip Henry Wicksteed, The Common Sense of Political Economy, and Selected Papers and Reviews on Economic Theory, Lionel Robbins (Ed.) (Augustus M. Kelley Publishers, New York, 1950). Original edition: (Macmillan & Co., Ltd., London, 1910).

<sup>23</sup> John Neville Keynes, The Scope and Method of Political Economy, 4th ed., (Kelley & Millman, Inc., New York, 1955). Original edition: 1891.

We can call these laws real, to distinguish them from the logical and moral varieties. Whether or not the reader elects to label them as scientific, along with the laws of the natural sciences, depends on his concept of economic law and of science. If one chooses to adhere to the empirical criteria of Hutchison<sup>24</sup> or Kaufmann,<sup>25</sup> the term scientific law will be applied only to a definite class of propositions that can be factually verified. If one is at home with intangible concepts like cause and effect, or truth and falsehood, he will then permit himself to recognize a wider band of proposition as scientific.

From these real laws we then pass to the classification of logical law. Such laws express certain procedural steps required by formal logic as part of the process of deducing theorems. For example, since all generalizations are of the form: "If A, then B," one is allowed to argue: "If A is the case, then B is also the case." Or, "If B

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<sup>24</sup> op. cit.

<sup>25</sup> Felix Kaufmann, Methodology of the Social Sciences (Oxford University Press, Inc., New York, 1944) .

is not the case, then A cannot be the case." But logical law forbids the following inference: "If B is the case, A is also the case." It is interesting to note that this "shocking" error in logic is on occasion employed in the confirmation of theories of natural science.<sup>26</sup> Thus we cannot deal with the subject of laws, or of epistemology in general, without having to confront the laws of logic. This is all the more evident when we read, for example, statements that "the Quantity Theory of Money is a tautology,"<sup>27</sup> or that the scientific theory of economics depends on "a more perfect theory of the laws of thought."<sup>28</sup> In either case we need to be equipped with certain insights as to the inner workings of the laws of logic.

A simple example can illustrate these laws:

|                     |                                                                 |
|---------------------|-----------------------------------------------------------------|
| State of the world: | Given a furnace designed to heat a house in the dead of winter: |
| Antecedent (A) :    | If the fuel runs out,                                           |
| Consequent (B) :    | the house will get cold.                                        |

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<sup>26</sup> F. S. C. Northrop, The Logic of the Sciences and the Humanities (Macmillan Publishing Co., Inc., New York, 1947), p. 146.

<sup>27</sup> Hutchison, op. cit., p. 28. A tautology is a statement one of whose terms is a mere definition of the other.

<sup>28</sup> Von Mises, Epistemological....., p. ix.

We may argue correctly that either: "If A, then B," or "If not B, then A cannot be affirmed." But we cannot reason that: "If B is correct, therefore A is correct." The furnace could be out of order rather than merely out of fuel.

Similarly, we could present Gresham's Law in the same format:

|                     |                                                                  |
|---------------------|------------------------------------------------------------------|
| State of the world: | Given a market in which two monetary units X and Y coexist:      |
| antecedent (A) :    | If X were overvalued with reference to Y,                        |
| consequent (B) :    | X would be used in trade, and Y would disappear from the market. |

Again, we may argue correctly either: "If A, then B" or "If not B, then not A." Y could have been withdrawn from circulation by law or for some reason other than undervaluation.

Thus, the importance of logic in economic theorizing; however, our concern will not be with this form of law.

The concept of moral law also enters into economics. Though, in general, it will be our purpose to set aside all reference to jurisprudence and political legislation, one often sees a wage and hour law, for example, labeled as an economic law. Nor will it be possible to bypass entirely the ethical implications of law.

Many economists expressly stand clear of the

right/wrong aspects of human conduct. John Neville Keynes expresses the viewpoint of many:

We here use the term "law" as it will consistently be used in the following pages in its scientific and not in its jurisprudential sense. We mean by a "law" a theorem, the statement of a uniformity, not a command enforced by sanctions. The law of supply and demand, the Ricardian law of rent, Gresham's law, and the like, may be given as examples of economic laws, in the above sense. The validity of such laws is a purely theoretical question, and our attitude towards them is not, or at any rate should not be, affected by our ethical or political views.<sup>29</sup>

Keynes feels that though "it is possible to discuss 'law' apart from ethics and apart from ideals, the use of law for political problems requires ethical and political considerations."<sup>30</sup> Wagner felt that considerations of ethics cannot be separated from economic laws.

Today the ethical references present themselves in the literature under many guises, especially in the discussions of normative economics, welfare economics, public policy, etc. Thus the moral aspect of law will per-

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<sup>29</sup> Op.cit., p. 36.

<sup>30</sup> Ibid., p. 40.

force be present in our discussion, if only remotely. A well-known example of the wedding between the scientific and ethical aspects of law is the classical assertion that competitive prices and wages are just.

John Bates Clark, for example, notes the affinity between theory and ethics when he asks: <sup>31</sup>

"Does the economic law which, in some way that he [the workman] does not understand, determines what his pay shall be, make it to correspond with the amount of his portion of the day's product, or does it force him to leave some of his rightful share behind? .... Property is protected at the point of its origin, if actual wages are the whole product of labor, if interest is the product of capital, and if profit is the product of a coordinating act." <sup>32</sup>

It is thus our intention to leave aside, where possible, ethical and logical laws. What is or is not real law will be the subject of this study; of course, the decisions are made by the economists themselves. They themselves will occasionally confuse political law with theoretical law, as the following definition of economics suggests:

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<sup>31</sup> John Bates Clark, op.cit., pp. 8-9.

<sup>32</sup> For a discussion of the relation between ethics and economics, cf. Vincent J. Tarascio, Pareto's Methodological Approach to Economics (University of North Carolina Press, Chapel Hill, 1966), pp. 30-55.



"What will be the best way to add to the wealth of a society must be a subject of study by that society, which will lay down rules -- that is to say, make laws -- for the purpose, and that is political economy." <sup>33</sup>

Recognizing that there will always be some analytic difficulty in pinpointing clear instances of just what real or scientific law is, we could simplify our study, if we had a clear notion of law to use as a guideline.

Is there, then, some common sense norm that one could adopt? In speaking of a scientific law, does not a layman have some notion of a very definite regularity, that is absolute, airtight, failsafe, universal? The student in the physics laboratory knows that Boyle's Law prescribes a determined relationship between the pressure and the volume of a gas. In geometry the relations between the angles and sides of a triangle are uniquely defined.

Convinced that there are such scientific regularities, we might turn to the so-called philosophers of science for an understanding of this fundamental concept. Just what is a scientific law, and how might we judge between different usages of the term? We are immediately struck by a general lack of conviction, even on the part of the scientists, as to the essential meaning that we are

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<sup>33</sup> John Neville Keynes, op.cit., p. 32.

searching for. We find, for example, that the philosophers are debating whether Johann Kepler's (1571-1630) famed "laws" of planetary motion are really laws after all. It seems that they refer to our particular solar system rather than to all possible solar systems, and thus are not considered "general" enough to be true laws. Even Newton's laws are in danger of losing the title law, because they are incorrect when "absolute" space is taken into account. Finally, Euclid's postulates of geometry have lost their unique status with the advent of the Lobachewskian and Riemannian geometries.<sup>34</sup>

In fact, Nagel lays down the matter very clearly when he states:

The label "law of nature" (or similar labels such as "scientific law," "natural law," or simply "law") is not a technical term defined in any empirical science; and it is often used, especially in common discourse, with a strong honorific intent but without a precise import. There undoubtedly are many statements that are unhesitatingly characterized as "laws" by most members of the scientific community, just as there is an even larger class of statements to which the label is rarely if ever applied. On the other hand, scientists disagree about the eligibility of many statements

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<sup>34</sup> cf. Nagel, op. cit., Chapter 9.

for the title of "law of nature", and the opinion of even one individual will often fluctuate on whether a given statement is to count as a law.<sup>35</sup>

Thus even science itself will not afford a plain definition of law. It will, therefore, be necessary to content ourselves, for the time being, with a general notion, as, for example, the classic definition of Marshall in the preface to the first edition of the Principles, and reserve more precise concepts for later. Marshall writes:

"It is held that the Laws of Economics are statements of tendencies expressed in the indicative mood, and not ethical precepts in the imperative. Economic Laws and reasonings in fact are merely a part of the material which Conscience and Common-sense have to turn to account in solving practical problems, and in laying down rules which may be a guide in life."<sup>36</sup>

#### Influence of the Law of Nature on Economic Laws

In order to explain the pervasiveness of economic law, especially in the nineteenth century writers, and to assist in unearthing the root causes of its disorderly status in the literature, it will be helpful to take a brief look at the systems of natural law which were prevalent in the formative years of economics as a science.

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<sup>35</sup> ibid., p. 49.

<sup>36</sup> op.cit., pp. v-vi.

Inasmuch as its beginnings were clothed in natural law garb, it is not a rash presumption to assume that the influence of the law of nature had bearing on the development of laws and persists to this date in the natural law coloration of some economics writings. Marshall expresses this view when, as late as 1890, he notes that by the formulation of economic laws "we get gradually nearer to those fundamental unities which are called nature's laws;"<sup>37</sup> Or Mises: "Conformity of the phenomena of the world to natural law must appear to us as the foundation of our human existence, as the ultimate basis of our being human."<sup>38</sup> Schumpeter holds that "social science discovered itself in the concept of natural law"<sup>39</sup> and Taylor believed that economists still hold on to traces of the Order of Nature.<sup>40</sup>

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<sup>37</sup> op.cit., p. 40.

<sup>38</sup> Epistemological . . . . ., p. 198. We will see later that Mises denies using "natural law" thought.

<sup>39</sup> History . . . . ., p. 112. Some of the following discussion follows Schumpeter.

<sup>40</sup> O. H. Taylor, "Economics and the Idea of Natural Laws," Quarterly Journal of Economics (Nov. 1929), Vol. 44, No. 4, p. 33.

What then was this Law or Order of Nature? It was a complex phenomenon. In the first place, the word "natural" itself has been applied in several senses; referring in some instances to the primitive state of man, in others to what is in conformity with man's "nature", and finally to what is just. Sometimes it is used in an ethical sense, at other times analytical. The natural law itself passed through its own phases of development; thus one must remember that there were various ancient, scholastic, and sixteenth-to-eighteenth century versions. As Northrop points out, though both St. Thomas and Locke speak of natural law, "the use of the very same words by the two men is proof of a basic difference, not of an identity, of meaning between the two men and their two philosophical systems."<sup>41</sup>

Gonce<sup>42</sup> distinguishes between two types of natural law philosophy: "the individualistic-secular type," which embraces the Stoic idea that "right reason was the essence of nature, the governor of the universe, and that it led

<sup>41</sup>op. cit., pp. 65-66.

<sup>42</sup>R. A. Gonce, "Natural Law and Ludwig Von Mises' Praxeology and Economic Science," Southern Economic Journal (Apr., 1973), Vol. 39, No. 4, pp. 491-3.

toward well-being, harmony and even virtue," and the "state of nature" variety, that derives "natural laws from speculations concerning the essence of one individual living in a state of nature."

Some versions, like the scholastic, are more ethical, others, like those of the Physiocrats and the State of Nature philosophers, more analytic.

An ethical definition is that of Taylor: "Natural Law meant a body of ideal or 'perfect' law, possessing in itself the full authority of actual law, but, having its source, not in the will or command of any human authority, or in 'custom', or in any supernatural revelation of Divine Will, but in the knowledge or perception, somehow possible for all men, of what is in itself right or just."<sup>43</sup>

In a more analytical sense it reflects the nature of a phenomenon. "In this sense, the ideal of natural law embodies the discovery that the data of a social situation determine — in the most favorable case, uniquely — a certain sequence of events, a logically coherent process

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<sup>43</sup>O. H. Taylor, "Jus Naturale and Economic Law," Quarterly Journal of Economics (Feb. 1930), Vol. 44, No. 2, p. 209.

or state, or would do so if they were allowed to work themselves without disturbance."<sup>44</sup>

According to the scholastic doctrine, the natural law was but a reflection of the divine law, which governed the universe. It was distinct from the positive law and enjoyed "real" existence independent of the minds of men. It was not a list of commands or injunctions as the positive law. Rather it was a set of principles of right reason that directed man to act in accord with his "nature". Man as a rational being was able to perceive the existence of this law, and was obliged morally to act in accordance with it. Right reason, for example, demanded of man to respect the life and property of other men; it was, therefore, naturally immoral for man to inflict harm upon the person or property of others, even though no positive law were to exist on this point. The natural law, furthermore, was never revealed to men, as the divine law. Rather it was to be elaborated by the students of natural jurisprudence over the centuries and to be adapted for time, place, and circumstance. Never did it appear in final form, codified and unabridged. It had much in common with the "nomos" of the Greek city-

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<sup>44</sup> Schumpeter, A History . . . . ., p. 112.

state and with the English Common Law.

But it was not the scholastic law that was the prevalent motif when Adam Smith took up his pen; the old natural law had reached its culmination point with the Spanish Jesuits two centuries before and had been superceded by the newer Cartesian rationalism. According to the idea of Descartes, the power of human reason became dominant. Natural law came to mean not some preexistent ethical code, but the analytic idea that society possesses some inherent consistency that can be discovered by conscious human reason.

The new rationalists set out to search for systematic explanations of human reality; and the new natural law was the medium by which they could elaborate such new conceptions. Each social scientist developed his own special "analysis" of what was the elan vital of society, and the normative aspects became more political or economic than ethical. Perhaps the most famous exponent of this mode of thinking was the famed Law of Nature School of the 17th and 18th centuries, the most distinguished representatives of which were Grotius (1583-1645) and Pufendorf (1632-1694).

Many of the famous personalities of economics and political science were nurtured in the newer Law of Nature



School, as well were such from subsequent schools as the Physiocrats, Utilitarians, and finally the Marxists. Hobbes (1586-1679), for example, maintained that the natural state of man was one of war; natural law was merely the dictates of right reason regarding self-preservation. For Locke, on the contrary, the natural state of man was one of peace; the natural law consisted in whatever common sense mandated to protect the basic rights of the individual.

Hayek calls these schemes "constructivism" and describes the difference between the medieval thinkers and the constructivists as follows:

"To the medieval thinkers reason had meant mainly a capacity to recognize truth..... They were very much aware that many of the institutions of civilization were not the inventions of the reason but what, in explicit contrast to all that was invented, they called 'natural', i.e., spontaneously grown. It was against this older natural law theory which did recognize that much of the institution of civilization was not the product of deliberate human design that the new rationalism of Francis Bacon, Thomas Hobbes, and particularly Rene Descartes contended that all the useful human institutions were and ought to be deliberate creation of conscious reason.....by a deductive process from a few obvious and undoubtable premises."<sup>45</sup>

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<sup>45</sup> F. A. Hayek, "Kinds of Rationalism," Studies in Philosophy, Politics and Economics (University of Chicago Press, Chicago, 1967), pp. 84-5.

The most noted group of natural law enthusiasts in the history of economics was, without doubt, the Physiocrats, who for a brief quarter century (1760-1790) captured the imagination of French social and literary circles. Their "ordre naturel" - is "the ideal dictate of human nature as revealed by human reason,"<sup>46</sup> and covers both the physical and the moral world. Quesnay describes the Physiocratic view:

If men violate physical laws, they will suffer death, and if they violate the laws of the social order, which are equally natural, they will ruin and destroy each other. Natural laws, as distinguished from the natural order, are simply the conditions under which the members of the natural order play their part in conformity therewith. The natural laws of the social order are accordingly the conditions under which men act in order to secure to themselves the advantages of society. They prescribe the rules of union; and the rules are no arbitrary contrivances, but flow from the essential justice that secures men their subsistence and their enjoyment of their possessions without detriment to others.<sup>47</sup>

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<sup>46</sup> Schumpeter, A History..... , p. 229.

<sup>47</sup> James Bonar, Philosophy and Political Economy in Some of their Historical Relations, 3d. ed., (Augustus M. Kelley Publishers, New York, 1966), pp. 140-1. Original edition: 1922.

For the Physiocrats "every social phenomenon is subject to law, and..... the object of scientific study is to discover such laws,"<sup>48</sup> However, as regards political law, "the most useful work any legislative body can do is abolish useless laws."

Though "we find in Adam Smith something like a deliberate avoidance of 'laws' in matters economical,"<sup>49</sup> his vision of economics was steeped in the natural law mentality. He does not mention natural law in the Wealth of Nations.<sup>50</sup> However, at times he speaks of all men as traders in a trading company, with a penchant for bargaining; or again, of the "simple and obvious system of natural liberty", or again of the "invisible hand". In describing God the Watchmaker, who wound up the "world" and just let it go, or the all-pervasiveness of competition in maintaining and propagating this system, he is giving

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<sup>48</sup> Charles Gide and Charles Rist, A History of Economic Doctrines from the Time of the Physiocrats to the Present Day, tr. R. Richards, 2nd ed., (D.C. Heath and Co., Inc., New York, 1966), pp. 52. Original edition: 1909.

<sup>49</sup> James Bonar, op. cit., p.141.

<sup>50</sup> Henry J. Bitterman, "Smith's Empiricism and the Law of Nature, II, Journal of Political Economy (Oct., 1940), Vol. 48, No. 5, p. 704.

rein to natural law premises. His prescriptions for society (free competition, personal initiative, limitation of the power of the monarch) are but normative applications of this natural law analysis. Bitterman holds that Smith used the concept of natural law both in the sense of an ethical law of nature and at times as observed regularities of phenomena.<sup>51</sup>

The natural law influence on Smith was described in the last century by Cliffe Leslie:

"An examination of Adam Smith's philosophy enables us to trace to its foundation the theory upon which the school in question has built its whole superstructure. The original foundation is in fact no other than that theory of nature which...taught that there is a simple Code of Nature which human institutions have disturbed, though its principles are distinctly visible through them, and a beneficial and harmonious natural order of things which appear wherever nature is left to itself".

Jeremy Bentham (1748-1832) postulated his version of the natural order under the guise of utilitarianism, which became the predominant nineteenth century vehicle of the natural law down through John Stuart Mill. The central idea of the Bentham system became the maximization

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<sup>51</sup> Henry J. Bitterman, "Smith's Empiricism and the Law of Nature I", Journal of Political Economy (August, 1940), Vol. 48, No. 4, p. 492.

<sup>52</sup> Cliffe Leslie, "Political Economy of Adam Smith, Fortnightly Review (Nov. 1, 1870); quoted by L. H. Haney, History of Economic Thought (Macmillan Publishing Company, Inc., New York, 1949), pp. 234-5.

of pleasure and the corresponding minimization of pain, or in the slogan of the day, the greatest happiness of the greatest number. Individual pleasure and pain can somehow be calculated in monetary terms. As Stark notes:

"Corresponding to the totality of human knowledge Bentham envisaged, as the principal desideratum and faciendum, a Pannomion, or all comprehensive body of law. The underlying idea of it was, of course, to be the greatest happiness principle.<sup>53</sup>

Bentham himself objected to the laws of nature; nevertheless, utilitarianism was but another law of nature system.<sup>54</sup>

Hayek calls this version particularist utilitarianism, because it "leads to its claim that man can achieve a desirable order of society by concretely arranging all its parts," in contrast with generic utilitarianism which he ascribes to Hume, and which rests on a recognition of the limitations of our reason and expects its fullest use from a strict obedience to abstract rules."<sup>55</sup>

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<sup>53</sup> W. Stark, Jeremy Bentham's Economic Writings, Vol. I, (Burt Franklin, New York, 1949), pp. 17ff.

<sup>54</sup> J. Bentham, The Theory of Legislation, C. K. Ogden (Ed.), (London, Routledge and Kegan Paul, Ltd., 1931), p. 82.

<sup>55</sup> Hayek, Studies...., p. 88.

Schumpeter, incidentally, feels that the alliance between economics and utilitarianism was neither necessary nor particularly damaging to economic analysis.

Finally, the Marxian systems of materialism, both the dialectic and the historical, are offshoots of the natural law, being even more comprehensive philosophically than either the Smithian or the utilitarian systems. Marx posits a whole series of laws; v.g., in the metaphysical order, the law of the negation of the negation, or the law of transition from quantity to quality; in the economic order, the law that production governs all the social superstructure or that labor generates all value.

To fully assay the part played by the natural law economists in the various concepts of the formation of economic laws is beyond the scope of this study. Our purpose is to make the reader aware of the dependence of the various economic doctrines on some one or other of these natural law worldviews. Of special importance also is the Marxian perspective, due to the increased number of articles today bearing on the dialectic.

The law of nature theorists have had their share of criticism over the years, notably from the historical school. Thus there does not lack a detailed criticism of the doctrines or methods they have espoused. Whether

they were too deductive (metaphysical, speculative) or too inductive (too much attuned to "nature")..... is a matter for the students of economic history.

The point of interest here is the influence they have had on the varying opinions as to what economic law is today, especially should it be possible to depict a hang-over from the teachings of the law of nature school that affects the thinking of some or all modern economists.

In fine, it is quite probable that some bits and particles of the various law of nature schemes, or of the various analogies between physical or biological laws and economic doctrine, still subsist in modern economics. Are the laws that have survived analytically distinct from the normative prescriptions of the various thinkers? Having stripped natural and physical law trappings, are the laws still basically sound? Or do they depend for their validity on some extinct natural law worldview? Or, more simply, is the modern disenchantment with the concept of laws due to the fact that the metaphysical basis for a particular law has long since passed? Any study of economic law cannot ignore these possibilities.

### Basis for the Classification of Economic Laws

It must now be decided how to classify economic laws. One could adopt a relatively simple classification based on the distinction between empirical and theoretical laws. To illustrate this distinction Machlup gives us a variety of alternatives. He writes:

I define a strictly empirical hypothesis as a proposition predicating a relationship between two or more sets of data of observation that cannot be deduced from the general hypotheses which control the network of inter-related inferences forming the body of theory of the discipline in question. The distinction is made in almost all disciplines; it is best known as the distinction between 'empirical laws' and 'theoretical laws', though several other names have been used to denote the two types of scientific propositions. The philosopher Morris Cohen spoke of 'concrete laws' in contrast to 'abstract laws'. Felix Kaufmann, though using the terms empirical and theoretical laws, characterized the former as 'strict laws', the latter as 'rigid laws'. The physicist Henry Margenau contrasted 'epistemic' or 'correlational laws' with 'constitutive', 'exact', or 'theoretical laws'. And Carl Menger, the founder of the Austrian School and protagonist in the Metho-  
denstreit, distinguished 'empirical laws' from 'exact laws', the latter dealing with idealized connections between pure constructs, the former with "the sequences and coexistences of real phenomena." <sup>57</sup>

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56 Menger, Problems., pp. 57-59; see also Fraser, op. cit., pp. 4-11, 51-55.

57 Fritz Machlup, "The Problem of Verification in Economics," The Southern Economics Journal (July 1955), Vo. XXII, No. 1, pp. 19-20.



Morris Cohen offers a three-way scheme. He allows three kinds of laws: general facts, empirical or statistical sequences, and statements of universal abstract relations.<sup>58</sup> Examples of the three are: Gold is yellow. The price of gold has dropped an average of two per cent per month for the last year. Whenever the demand for gold slacks off, its price drops.

Perhaps these simple divisions do not give sufficient play to more fundamental differences that are not revealed in these simple classifications. Would it be more informative, instead, to base the analysis on the distinct usages of either individual economists or of schools of economic thought?

Should Frank Knight, for example, be listed as a theoretical or an empirical economist? On the one hand, he held that "there is a science of economics, a true, and even exact science, which repeated laws as universal, as those of mathematics and mechanics."<sup>59</sup> On

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Morris R. Cohen, Reason and Nature, an Essay on the Meaning of Scientific Method. (Harcourt, Brace, & Co. Inc., New York, 1931), pp. 257-9.

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Frank H. Knight, The Ethics of Competition, 2nd ed. reprint, (Augustus M. Kelley Publishers, New York, 1951), p. 135. Original edition: (Harper & Bros., New York, 1935).

another occasion he declared himself an empiricist, emphasizing "the approximate character of theoretical laws and their inapplicability without empirical correction."<sup>60</sup>

Still again, Gonce notes that he has been called "a maverick vacillating between orthodoxy and institutionalism."<sup>61</sup> Obviously, to label Knight either as theoretical or empirical must be done with qualifications. And so for the laws he describes.

Or would one take as the norm the mathematician Samuelson of the Foundations<sup>62</sup> or the general practitioner of the Principles?<sup>63</sup>

Nor does it seem that a breakdown founded on schools and/or methods would be more clearcut. One could separate economics into its diverse methods, for example: theoretical, historical, mathematical, empirical, etc., with the object of educing a concept of law congruent with each of these components. Some economists specifically have tried

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<sup>60</sup> Frank H. Knight, Risk, Uncertainty, and Profit (Houghton Mifflin Company, New York, 1957), p. 11.

<sup>61</sup> R. A. Gonce, "Frank H. Knight on Social Control and the Scope and Method of Economics," Southern Economic Journal (April, 1972), Vol. XXXVII, No. 4, p. 548.

<sup>62</sup> Paul A. Samuelson, Foundations of Economic Analysis. Originally published: 1947.

<sup>63</sup> op. cit.

to reconcile several such schools. For example, Henry Schultz, in his pioneer study of statistical demand curves, "attempts to unify the theoretical-quantitative, the empirical-quantitative, and the historical approaches to the study of demand on a large scale."<sup>64</sup> With which school should Schultz be categorized?

A study that focused on the methodological differences between various segments of the economic profession was made by Henry W. Briefs;<sup>65</sup> its purpose was to analyze the difficulties experienced by the exponents of the three major methods (method of isolation, holistic, and mathematical-econometric) in communicating effectively with one another. His thesis was that "the root source of the difficulty stems from the fact that each of the distinct methods proposes its own conception of 'proper' scientific generalization or law, of 'proper' methods for the development and accreditation of such generalizations, and of the 'proper' way to start or approach the entire process of analysis."<sup>66</sup> Though we note the interesting

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<sup>64</sup> Henry A. Schultz, The Theory and Measurement of Demand, (The University of Chicago Press, Chicago, 1938.) p. viii.

<sup>65</sup> Henry Briefs, Three Views of Method in Economics (Georgetown University Press, Washington, 1960.)

<sup>66</sup> ibid. p. 7.

central position he assigns to economic law, we would like to point out the fact that the author focused his study upon the three methods, leaving aside "differences as to proper insight, conception, or value." With his sights, then, fixed upon method, he then proceeded to lump into the same "method of isolation" category authors as diverse as Marshall, Schumpeter, Friedman, and the Austrians. This writer suggests that the more important distinctions do not lie as much in method per se, as in the "insights, conceptions, and values," suggested by Briefs and indicative of the more profound causes of the controversies he rightfully laments.

What is, after all, the difference between a verbal formulation (method of isolation) and a mathematical formulation of an identical concept? Leaving aside any discussion over the distinctive characteristics of mathematics,<sup>67</sup> this writer notes with Tintner (citing Chipman) that "the English classical writers anticipated many of the results which were later established by modern mathematical economists with the help of advanced mathematical

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<sup>67</sup> Paul A. Samuelson, "Economic Theory and Mathematics - An Appraisal," American Economic Review, Papers and Proceedings, (May, 1952), pp. 56-66.

methods."<sup>68</sup> Gresham's Law could derive from theory, from history, or from econometrics. While it is true that a separate explanation would be required to analyze each of the three derivations, it is suggested that other values, deeper and more pervasive than mere method, are needed for this analysis.

What then if, again following Briefs, one would dig deeper and seek to find a more fundamental basis for classifying laws than that of the methods employed? Perforce one is brought to the underlying layer of axioms and postulates as well as that of the preliminary assumptions of any theory. Adam Smith's intuitive postulate of the "simple and obvious system of natural liberty" was sufficient an insight to light the way for the rest of the Wealth of Nations. Marx's assumptions of materialism, both the dialectic and the historical, narrowly defined the structure of theory which he built upon them. Likewise, one would expect the same to be true in the case of any other economic system; logically it should depend upon its axioms, postulates, and assumptions.

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<sup>68</sup> Gerhard Tintner, Methodology of Mathematical Economics and Econometrics (The University of Chicago Press, Chicago, 1968), p. 6; J. S. Chipman, "A Survey of the Theory of International Trade," Econometrica ( July, 1965), Vol. 33, pp. 477-519, and (October, 1965), pp. 685-760.

The axioms are the propositions taken as self-evident, and thus require no proof. Very familiar is the addition axiom of geometry: "When equals are added to equals, the results are equal." The postulates are not self-evident as are the axioms; they are "defined as those propositions of the theory which are taken as unproved and used to prove the theorems."<sup>69</sup> By assumptions are meant not only the specific restrictions imposed for a particular analysis like ceteris paribus in demand theory, but all the underlying substructure of philosophy, epistemology, and the state of the outside world whether expressed or implied by an economic author. In a stricter sense, says Northrop, "the basic assumptions of a deductively formulated science are the postulates."<sup>70</sup> He traces the development of Lionel Robbins's theorems from the first and fundamental postulate: "economic wants arrange themselves in an order by virtue of the relation of preference."<sup>71</sup>

A much broader concept of assumptions is given by

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<sup>69</sup> F.S.C. Northrop, The Logic of the Sciences and the Humanities (The Macmillan Company, New York, 1947), p.84.

<sup>70</sup> ibid., p. 108.

<sup>71</sup> ibid., p. 239.

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Machlup. He speaks of fundamental and specific assumptions.

Examples of fundamental assumptions or "high-level generalizations" in economic theory are that people act rationally, try to make the most of their opportunities, and are able to arrange their preferences in a consistent order; that entrepreneurs prefer more profit to less profit with equal risk..... Examples of specific assumptions are that the expenditures for table salt are a small portion of most households' annual budgets; that the member banks are holding very large excess reserves with the Federal Reserve Banks...." 73

In this paper an even broader meaning will be assigned to assumptions; this will include, in addition to the generalizations directly referring to a particular piece of analysis, also the more fundamental philosophical assumptions upon which the analysis is founded. Again, Marx is the clearest example. In practice, the terms assumptions, postulates, and axioms are often used interchangeably. Sometimes the theorems derived by one deductive process reenter the system as postulates for another process. Aside from the obvious terminological difficulty, it is "assumed" that any analysis must depend on the nature of its assumptions, taken in this broader sense.

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72 Fritz Machlup, "The Problem of Verification in Economics," The Southern Economics Journal (July, 1955), Vol. XXII, No. 1, pp. 1-21.

73 ibid., pp. 10-11.

When dealing with a particular bit of economic analysis which is clearly axiomatic in nature, the process of analyzing the resulting theorems, regardless of whether they are specifically labeled laws, is simplified. However, even in such cases, the analyst will check the nature of the assumptions employed by an author. This is all the more true when he has not specified his postulates clearly, as often happens in less formal writings.

But this assertion is not unanimously held. When Milton Friedman wrote his famous methodological article on the unrealism of assumptions,<sup>74</sup> he proposed two points, "the impossibility of testing a theory by its assumptions and also the ambiguity of the concept 'the assumptions of a theory'". Whether assumptions are "sufficiently good approximations" to some uncertain reality or "wildly inaccurate descriptive representations"<sup>75</sup> of this reality is not the crucial point for Friedman; his view of what economic theorizing [prediction] is all about requires no special, unique set of philosophical assumptions to be formulated and verified.

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Milton Friedman, "The Methodology of Positive Economics", Essays in Positive Economics (The University of Chicago Press, Chicago, 1953), pp. 17-18.

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ibid., pp. 14.



Even in thus denying the realism of assumptions, Friedman, as we shall see, reveals his own distinctive assumptions, in our wider sense. For example, economics is not so much a 'body' of systematized knowledge concerning what is,<sup>76</sup> but a set of hypotheses useful for making valid predictions; or "assumptions are false" when a "theory does not work".<sup>77</sup> These epistemological assumptions are as much assumptions as any of those suggested previously by Machlup.

Hutchison, for his part, doubts the validity of the fundamental assumption of economics, saying: "There appears not even to be complete agreement as to whether it is necessary or in fact used at all."<sup>78</sup>

Once, then, we grant that assumptions are present, expressed, or implied in every piece of economic analysis, we might categorize them as pertaining to one of the following components:

1. basic philosophy of the author, especially his convictions on economic epistemology;

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<sup>76</sup> ibid., p. 3.

<sup>77</sup> ibid., p. 19.

<sup>78</sup> Hutchison, op. cit., p. 84.

2. his views on the nature and scope of economics;
3. the non-economic environment postulated (if any);
4. the economic environment postulated.

Basic philosophical assumptions are often unmentioned in an analysis. However, they go a long way to explain differences in economic opinion, such as do the Marxian doctrines of historical materialism and of class warfare. Surely, the assumption that all historical processes depend upon production modes, which in turn determine the socio-political superstructure, is evidently earth-shaking in its effects; likewise, the assumption that men are naturally divided into two classes. These are assumptions of basic philosophy held by their author; they are indispensable for understanding his doctrine.

The word philosophy itself no longer has a clear connotation. Traditionally, philosophy was the "science" that explained ultimate realities, like the meaning of such imponderables as thought, free will, life, or man himself. Many of these concepts dealt with in classical philosophy do not reflect the everyday tangible real world. They are "metaphysical", meaning referring to

"inquiries or speculations which.... claim to rest not on premises established by observation and experiment but on a priori [based on thought processes alone] grounds of pure reason."<sup>79</sup> Or as Passmore writes: Metaphysics is the "attempt to demonstrate that there are entities which lie beyond the reach of any possible experience."<sup>80</sup> In the modern world many reject the admissibility of such intangibles; thus today philosophy also refers to the linguistic analysis of propositions, or the analysis of experience. In the words of Carnap, the "logic of science takes the place of the inextricable tangle of problems which is known as philosophy."<sup>81</sup> Especially discredited are the "seductive fallacies of metaphysics." Economists, and not merely philosophers,

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"Metaphysics", Encyclopedia Britannica, Vol. 15, 1972, p. 260.

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John Passmore, "A Hundred Years of Philosophy," (Gerald Duckworth & Co., Ltd., London, 1957), p. 37, p. 382.

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Herbert Feigl, "Logical Empiricism", Readings in Philosophical Analysis, Herbert Feigl and Wilfrid Sellars (Eds.) (Appleton-Century-Crofts, New York, 1949), p. 369. Originally published in Twentieth Century Philosophy, D.D. Runes (Ed.), (Philosophical Library, New York, 1943).

(even when writing about innocuous things like law or assumptions) on occasion reiterate this strong language.<sup>82</sup>

We will concern ourselves principally with two major philosophies of interest to non-Marxist economists, rationalism and empiricism. "The fundamental thesis of the rationalist philosophers is that the key to true being is afforded not by the evidence of sense, but by pure thought, of which logic and mathematics are representative."<sup>83</sup> We have seen the effect of rationalism on the natural law philosophers.

It is important, however, that a distinction be made between two antithetical versions of rationalism. Following Hayek and Carl Popper, we distinguish the older "critical" version, which utilized thought processes (especially deduction from some basic postulates) to arrive at theorems or laws; from the "constructivist" version, which seeks, as we have seen, to utilize reason to remake the socio-economic world. "Rationalism in this sense," says Hayek, "is the doctrine which assumes that all insti-

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<sup>82</sup> Hutchison, op. cit., p. 17, p. 59.

<sup>83</sup> Felix Kaufmann, Methodology of the Social Sciences (Humanities Press, Inc., New York, 1958), p. 10. Original edition: 1944.

tutions which benefit humanity have in the past and ought in the future to be invented in clear awareness of the desirable effects that they produce."<sup>84</sup>

It is in the former critical sense that Mises once called economics rational sociology, because he believed that knowledge would be advanced by reasoning from axioms not based on external experience.

Opposed to critical and constructive rationalism is the contradictory view which holds that "all attempts to base empirical science on ultimate grounds conceived as self evident truths are foredoomed to failure."<sup>85</sup> This is empiricism, which maintains not only that all knowledge comes from the senses, but that in all investigation we must follow the method of the natural sciences. The current expression of empiricism is via logical positivism, which in its modern form is the "official philosophy of the new physics."<sup>86</sup> Positivism itself derives from August Comte. Originally it ruled out as nonsense all laws,

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<sup>84</sup> Hayek, "Kinds of Rationalism.....;" p. 85.

<sup>85</sup> Kaufmann, op. cit., p. 1.

<sup>86</sup> P. Felipe Selvaggi, S.J., Filosofia de Las Ciencias (Madrid, 1955), p. 53.

because laws were not empirical propositions, not "facts," but generalizations. Though it has been abandoning its more extreme positions, it still maintains that "a proposition is meaningless unless it has some empirical consequences,"<sup>87</sup> and that all metaphysical propositions must be eliminated.

Economists do not often state their ultimate philosophical positions; for this reason it would be difficult to set up our division of laws on this basis alone. However, it will be our task to point out where possible the relevant philosophical tenets of various economists. Those who are critical rationalists will generally rely on deductive reasoning, utilizing concepts which others will call "prescientific"<sup>88</sup> and "fantastic."<sup>89</sup> This group will be strong advocates of theoretical laws, but will demonstrate less enthusiasm for empirical analysis.

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<sup>87</sup> id.

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John Stuart Mill was perhaps the most famous disciple of Comte. As we shall see, however, Mill developed much of the classical system of deductive economics, and, especially in his earlier writings, did not follow any of the extreme tenets of positivism.

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Herbert Feigl. "Logical Empiricism," in Readings in Philosophical Analysis, Herbert Feigl and Wilfrid Sellars (Eds.), (Appleton - Century - Crofts, New York, 1949), pp. 4-5.

The constructive rationalists would be impatient with the rules of language and thought, and likewise with the restraints of any classification of economic law. The positivists, on the other hand, will utilize only propositions based on factual experience and which have empirical consequences. They will be "empirical" lawmen, but will reject outright all that smacks of theory.

Another way to contrast these three groups of antithetic thinkers is via Haney's distinction between idealism and materialism. Without commenting upon the more fundamental aspects of his distinction, we observe that he accurately classifies two definitely opposing groups, whose practical views are a derivative of their higher-level convictions; as he states:

That a man's whole attitude toward Economics as a science is bound to be influenced by his philosophical leanings, whether these be conscious or not, may be easily demonstrated by pointing out the bearing of materialism and idealism upon the nature and scope of economic "laws." 90

The idealist thinkers, much as Hayek's constructive rationalists, are not content with searching out and

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Lewis H. Haney, History of Economic Thought, 4th ed. (The Macmillan Company, Inc., New York, 1949), p. 12.

understanding any predetermined, fixed pattern of relationships. Rather they want to burst forth with dynamic programs that will rearrange and improve upon the existing order. They rely on social planning and control on the part of government to correct the inequities and defects of society. They look not so much towards explaining the levels of prices, employment, or national income as towards setting target levels for these at some politically desirable point. They are anti-law by necessity, as Haney notes:

Thus these extreme idealists disregard or deny the validity of positive economic laws, for they do not recognize any "given conditions" as a base. They wish to make their own conditions by changing institutions -- nothing is held to be normal but "social control." 91

On the other hand, Haney's materialist thinkers might follow Hayek's critical rationalists; for them economics means to explain the system as it is in its necessary and unchanging regularities. The concept of law appeals to them because it insists on cause and effect, on logical inference, and inescapable conclusions.

Or the materialists might well be the positivists,

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91 ibid., p. 13



who are not concerned with the explanation of some a priori system, but rather with a rigid "scientific" method that does not depend on any unverifiable propositions. Law then becomes the expression of the empirical regularities determined in this process.

Though method per se has been ruled out as the unique basis for our classification of laws, there is no doubt that the method chosen by an author will have bearing upon his concept of law, much as would any assumption.<sup>92</sup> There are many aspects of the controversy over the proper method for economic science. Some, among others, have been whether one should exclusively follow the methods of the natural sciences in economics (Scientism or Naturalism), or whether such use is to be considered an unnecessary limitation on the mental capabilities of man; whether the proper approach to economics should be analytic (the study of complex nature to develop general principles about individuals, as is done in physics) or synthetic (the study of individuals in their essential motions in order to develop principles pertaining to all members in

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<sup>92</sup> Hutchison, op. cit., pp. 14-15.

a group - methodological individualism);<sup>93</sup> whether knowledge can be advanced by the mere marshalling of statistical facts or whether such marshalling must be directed in accordance with some predetermined theory.<sup>94</sup>

One could thus multiply instances of the controversy over method. Since an author's attitudes toward the credibility of economic law will depend on the postulates of the method he has adopted, there should be some correspondence between these postulates and the kind of law that emerges from his analysis. We will generally find that a strict methods economist will also be a strict lawman; and, viceversa, one who deemphasizes method will deemphasize law.

A second set of assumptions concerns an economist's conception of the nature and scope of economics. This will profoundly affect his positive or negative attitudes towards economic law. A thoroughgoing analysis of The Economic Point of View has been made by Kirzner, who catalogues the many conceptions of economics that have been

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<sup>93</sup>

Hayek, The Counter-Revolution...., pp. 38-39.

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Tjalling C. Koopmans, "Measurement without Theory", The Review of Economic Statistics (August, 1947), Vol. XXIX, No. 3, pp. 161-72.

proposed over the years. Even a sampling of such conceptions<sup>95</sup> makes the point that many are not clear in what the main point of economics consists. Whether it has to deal with psychology, or maximization, or gross national production, or equilibrium, or welfare, or an amorphous smattering of all such problems.

An economics which "is to be able to predict and not merely describe the consequences of action"<sup>96</sup> is operating in quite a different vein from an economics whose essence is to describe a certain proportion between production and distribution, in Professor Fetter's phrase, 'the principle of proportionality.'<sup>97</sup>

Or if an economist feels that "the central problem in economics is the problem of price", he might affirm with Ezekiel that "if the newer statistics can carry economic knowledge of the 'laws of price' further than neo-classical theory has done, then certainly it cannot

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<sup>95</sup> op. cit.

<sup>96</sup> Friedman, Essays . . . . ., p. 12.

<sup>97</sup> cf. George R. Davies, "The Significance of Economic Law, American Economic Review (Sept., 1931), Vol. XXI, No. 3, p. 451.

be denied a place in the arsenal of the economist." <sup>98</sup>

On the other hand, Lange views economics as "the science of administration of scarce resources in human society." <sup>99</sup> His laws have both a personal and an administrative aspect. Laws are established "to make successful prediction of human actions"; and "to predict the results of policies, i.e., of actions of public or private agencies...." <sup>100</sup>

It is to this same problem of scarcity that Robbins addresses himself: "An act pertains to economic science insofar as it reveals the consequences of a compulsion to allocate scarce resources among conflicting ends." <sup>101</sup> Kirzner shows how Robbins is not, like Lange, classifying economic resources and actions, but is analyzing an essential component of every economic human act. In

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<sup>98</sup> Mordecai Ezekiel, "Statistics and the 'Laws' of Price," Quarterly Journal of Economics (February, 1928), Vol. XLII, No. 2, p. 200. Ezekiel's laws are, incidentally, decidedly historical in character.

<sup>99</sup> Oskar Lange, "The Scope and Method of Economics," The Review of Economic Studies (1945), Vol. XIII, p. 19 (reprinted by Kraus Reprint Corporation, New York, 1959).

<sup>100</sup> op. cit., p. 20.

<sup>101</sup> Kirzner, op. cit., p. 118.

Robbins economics becomes an essentially human study, and his laws describe only "necessities to which human action is subject."<sup>102</sup>

From these few examples it is clear that an economist's notion of law will depend fundamentally on his vision of the nature and scope of the science. Once again, since certain authors do not clearly indicate their views on all this, no attempt will be made to base a classification of laws on the respective definitions of economics alone. Kirzner's study gives us an insight into both the complexities to be found in that area, as well as into the trend away from considering investigation into the essential nature of economics as a "search for a department of human affairs to which the adjective 'economic' applies, to the search for the appropriate aspect of affairs in which economic concepts are of relevance."<sup>103</sup>

It will be expected that the more exact the definition of economics an author holds, the clearer will be his position on economic law. It will be seen that,

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<sup>102</sup>Robbins, op. cit., p. 135.

<sup>103</sup>Kirzner, op. cit., p. 17.

though sometimes a strong method can overcome a weak definition, firm laws will not generate out of undecidedness.

In the third place, some economists make preliminary assumptions about the state of the non-economic (or meta-economic) world. Fresh overarching assumptions, whether political, cultural, or historical, etc., can profoundly affect economic analysis. An illustration of this can be shown in the dependence of the Marxian laws upon specific modes of production. Marx speaks of a

... law of population peculiar to the capitalist mode of production; and in fact every special historic mode of production has its own special laws of population, historically valid within its limits alone. An abstract law of population exists for plants and animals only, and only insofar as men have not interfered with them.<sup>104</sup>

The law of nature can be a meta-economic assumption. Veblen comments with reference to the classical authors: "In the preconceptions with which classical economics set out were comprised the remnants of natural rights and of the order of nature, infused with that peculiarly

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<sup>104</sup> Karl Marx, Capital, A Critique of Political Economy, Frederick Engels (Ed.), Revised and Amplified according to the Fourth German Edition by Ernest Untermann (The Modern Library, New York, 1906), pp. 692-3.

mechanical, natural theology that made its way into popular vogue on British ground during the eighteenth century."<sup>105</sup>

It can be left to the reader's imagination to analyze the effects of the political assumptions in Kurt Breysig's thirty-first law: "Under the rule of the Kaiser and of the people, which developed concomitantly, the [German] national economy had to advance to a hitherto unheard of boom in trade and industry."<sup>106</sup>

Passing directly to the specifically economic assumptions, which loom large in much economic analysis, we can now note a series of assumptions which are frequently encountered in practice. These can take the form of postulates or of some general restriction upon the applicability of a particular theory. Among others are the fundamental postulate or the economic principle, conditions of market structure, equilibrium, or simplifying assertions in general.

In the Walrasian analysis, for example, perfect competition forms the basic assumption. "Pure economics,"

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<sup>105</sup>Thorstein Veblen, "The Preconceptions of Economic Science", Quarterly Journal of Economics (July, 1898), Vol. XIII, p. 424. Reprinted: Wesley C. Mitchell (Ed.), What Veblen Taught, Selected Writings of Thorstein Veblen (The Viking Press, New York, 1936), p. 110.

Walras writes, "is, in essence, the theory of the determination of prices under a hypothetical regime of perfectly free competition." <sup>107</sup>

Nassau Senior proposes four general propositions or assumptions:

1. That every man desires to obtain additional wealth with as little sacrifice as possible.
2. That the population of the world... is limited only by moral or physical evil, or by fear....
3. That the powers of labour, and of the other instruments which produce wealth, may be indefinitely increased....
4. that... additional labour employed on the land... produces in general a less-proportionate return. <sup>108</sup>

Neville Keynes adds the general assumption: "Premises shall ultimately include all the circumstances which exert any very important influence upon the phenomena in question at the period and place to which the investigation has primary reference." <sup>109</sup> He goes on to show the importance of the assumptions in analysis: "It is clear

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<sup>107</sup> Leon Walras, Elements of Pure Economics, trans. William Jafee, (Richard D. Irwin, Inc., Homewood, Ill., 1954), p. 40.

<sup>108</sup> J. N. Keynes, op. cit., p. 244.

<sup>109</sup> J. N. Keynes, op. cit., p. 240.



that whenever conclusions are reached by deductive reasoning, their applicability must remain hypothetical, until it has been determined how far the premises which form the basis of the reasoning are realized in fact."<sup>110</sup>

It is by now clear that the nature of the assumptions posited by an economist must be taken into account in judging the conclusions of his analysis. The relevance of this is of such importance that it is proposed here to classify law principally on the basis of the assumptions stated or implied by particular economists. Of course, by assumptions, we mean to include the wider fourfold classification just described. Of these groupings of assumptions the first (philosophical and epistemological) and second (nature of economics) are not always sufficiently clarified to be of direct help; though when they are fully formulated, they enable the researcher to penetrate directly to the point of any discussion. The third grouping (meta-economic assumptions) is generally of critical importance in special systems like the Marxian or certain historical schools. The fourth (economic assumptions, in the narrower sense) is usually always vital.

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<sup>110</sup> ibid., p. 221.

Thus it is here proposed to classify the economic laws used in an analysis based upon the type of assumptions underlying the analysis. It has already been seen that any one economist is not always consistent in these matters, and some will appear in more than one classification. Also this proposal has the advantage of not limiting the classification to any one criterion, as that of method.

Many economists have a distaste for the term law, preferring to substitute it with "theorem" (Baumol), "principle" (Marshall), or "generalization" (Mehta). It will have to be left to a broader study to include an analysis of these terms, and then a greater synthesis of all economic generalizations.

We hope to be able to show a correlation between the assumptions, postulates, and axioms and the resultant attitude of economists toward economic law.

To further illustrate what this correlation means, one can imagine a spectrum of economists of all persuasions, ranging from the anti-law economists on one extremity to the most lawbound economists on the other. The anti-law group, it is suggested, can be described in general, by the following characteristics, referring to the assumptions

underlying their analytic work:

1. Philosophically, these economists will tend to be idealists (Haney) or constructive rationalists (Hayek-Popper) with a leaning toward positivism in method.

2. They will offer no consistent or rigid definition of the nature and scope of economics; especially they will not specify precisely what it is that makes economics a definite science apart.

3. The preliminary propositions (whether postulates, axioms, or assumptions) in analytic systems will not be considered as having substantive content; they need not have "realism" in empirical systems; all data will be purely factual.

4. There will be no rigorous method of analysis prescribed; methodological collectivism will be preferred over methodological individualism.

5. There will be no restrictive assumptions (like perfect competition) upon the analysis.

6. There will be a positivist concept of cause and effect.

7. The idea of law will be deemphasized.

These characteristics will be progressively weakened and converted into their opposites, as one passes to the reverse extreme of the spectrum. The pro-law group will

then exhibit the following characteristics:

1. Philosophically, these economists will tend to be materialists (Haney) and critical rationalists (Hayek-Popper) with little trace of positivism.

2. They will propose a precise definition of economics, pinpointing some essential phenomenon that characterizes economic science.

3. The preliminary propositions will be substantive and universal.

4. A rigorous method of analysis will be prescribed, with emphasis on methodological individualism.

5. The restrictive assumptions will be of a meta-economic nature; rather than purely economic, because the economic propositions are deemed universal and thus needing no restriction.

6. There will be a classical concept of causality.

7. Laws will be theoretical and non-verifiable.

It is hoped that this method of analysis will help to shed a little light on why economists react as they do to the concept of law and will help to explain their idea of law more clearly. Also, our breakdown will enable us to divide the various philosophical packages into four distinct groupings, for each of which a chapter will be reserved:

Chapter III: Economics Without Laws

None of the strong assumptions are present. Authors in this scheme will tend to bypass the notion of law.

Chapter IV: Weak Economic Laws

Infra-economic assumptions that do not extend across the entire economic front (as the behavior of marginal cost in a certain nation or period) can be used to postulate empirical and weak theoretical laws. Strong positivist assumptions in methodology will permit factual laws.

Chapter V: Normal Economic Laws

Broad assumptions, coterminous with the concept of economics held by the author, but still selective enough as not to apply to all human experience, favor the normal or ceteris paribus laws. Authors are constantly required to explain the nature of exceptions to their laws.

## Chapter VI: Strong Economic Laws

Rigid metaeconomic assumptions and a concept of economics that embraces all of man's activities, together with a stringent method, permit laws of the strong type, as well as a relaxation of the purely economic assumptions.

The selection of the terms weak and strong are arbitrary; one could reasonably argue that empirical laws, based as they are upon factual evidence, should be classified as strong, whereas a priori laws, which flow from a limited number of analytic premisses, merit the designation weak. Our selection of terms, however, has the advantage of conforming to an economist's own judgment as to the universality and permanence of a particular law under examination. It classifies laws as weak if they are meant by their author to reflect the empirical and transitory regularities of a changing world. They are strong if they are considered to be universal and unerring under all conceivable conditions. They occupy the midway normal position if they are considered to be applicable only under certain limited circumstances, as under conditions of equilibrium or of perfect competition, and suffer exceptions when such preconditions do not prevail.

A Roadmap for the Analysis

It is now possible to bring together the results of this preliminary investigation and prescribe the precise process that will be followed in analyzing our four classifications of law. Presented here is a roadmap that will guide the discussions in the following chapters; in the case of each work, author, or school the essential points to be investigated are:

1. the assumptions (including postulates and axioms) upon which a piece of analysis is based;
  2. the meaning of law as used in the particular analysis;
  3. the logical method adopted;
  4. the qualities of laws produced in the analysis;
- and
5. the purpose of law.

What is meant by assumptions should by now be clear. We do not yet have, however, a precise meaning of law. It has already been indicated that the philosophers of science do not have a satisfactory definition to offer. When one turns to the writings of the economists, the picture becomes even more confused.

For Maurice Dobb, for example, a law describes actuality; it is "a generalized description of how things actually behave in the real world." <sup>111</sup>

For Menger laws are "typical relationships"<sup>112</sup> of the world of phenomena.

Taylor makes adjustment the controlling factor. "The processes described by economic laws are real processes of adjustment, comparable to other natural processes." <sup>113</sup>

Robbins brings in the human ingredient. Laws become "substantial uniformities of 'economic behaviour.'" <sup>114</sup> Lord Keynes speaks of a "fundamental psychological law," <sup>115</sup>

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<sup>111</sup> Maurice Dobb, Political Economy and Capitalism, Some Essays in Economic Tradition (George Routledge and Sons, Ltd., London, 1937), p. 279.

<sup>112</sup> Menger, Problems..., p. 26.

<sup>113</sup> Taylor, "Economics....," p. 38.

<sup>114</sup> Robbins, op. cit., p. 114.

<sup>115</sup> J. M. Keynes, op. cit., p. 110.



bringing the discussion around to psychology.

Perhaps, the nature of the regularity described by law could be best determined by looking at its source data. Is such data best described as: factual, experimental, technical, theoretical, hypothetical, mathematical, statistical, or historical? Does the regularity refer to individuals, average types, specific groups or nations, all mankind? Is this relationship one of premise and conclusion, cause and effect, definition or identity, correlation, functional dependence?

Could the regularity which emerges be classified as theoretical or applied, positive or normative? And finally is "law" in this sense used as it is in mathematics, statistics, science, or history?

By probing various instances of laws in this manner, we expect to arrive at a clear concept for each of the categories. This analysis depends, as we have seen, on the kind of assumptions (in the widest sense) upon which a particular author bases his reasoning.

Once a more positive notion of law has been developed, the next task is to analyze the characteristics displayed by this law. These depend essentially on the scientific method utilized to derive it. Obviously, generalizations

that result from an empirical inductive procedure will be of a different class than those which derived from intuitive postulates and a deductive procedure. Likewise, any other technique, whether historical, mathematical, or statistical, will produce its own distinctively characterized generalizations.

In assessing these characteristics, one is especially interested in determining whether they are or are not:

1. universal: Does the law refer to every member of a class; or conversely, to some members of a class or to some average member? For example, does the law of diminishing utility simply that marginal satisfactions will always eventually diminish under every case covered by the law, or is there a mere tendency for this to occur in many cases or in average cases?

2. deterministic: Does a law reflect a cause/effect relationship between the variables; or is the relationship one of chance concomitance, meaning that the variables happen to be associated with each other by accident? Does Gresham's Law imply that the disappearance of an undervalued currency is caused by the same process that brought the overvalued currency into the market; or do both effects occur together by mere happenstance?

3. necessary: Must a deterministic relationship between cause and effect occur in the way it did, or could the cause have produced some other effect instead? If a rise in price, in accord with the law of supply, forces an increase in the quantity offered, must one conclude that a rise in price may never produce a result other than and to the exclusion of, that particular increase in quantity?

4. quantifiable: May a particular law be expressed in quantitative terms; or are only qualitative statements valid? Which expression is permitted by Henry Schultz's law of demand for cotton, for example?<sup>116</sup>

5. certain: Is one certain that the event postulated by a law will occur in 100% of all cases; or conversely, will it occur less often than that? Did the proponents of the Iron Law of Wages imply that wages would always remain at subsistence level? Was it a tendency? Could it be expressed in probability terms?

6. verifiable: Is it possible to determine by external fact that a particular event described by law has indeed occurred? Would it be possible for Say to

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<sup>116</sup> Schultz, op. cit., p. 69.

contend that it is always possible to demonstrate factually that supply creates its own demand? Or is Say's Law purely theoretical?<sup>117</sup>

7. teleological: This is to ask whether the law reflects conscious purpose; or does it rather depend on chance relationships or mechanical forces? Does the Law of Diminishing Returns reflect the brute forces of nature, or does it refer to the conscious decisions of men attempting to achieve a maximum quantity of net product?

To penetrate into the full meaning of the laws of economics one must understand the implications of these various characteristics. They are not mutually exclusive; and certain characteristics will perforce be found with a special class of law. All writers, for example, are agreed that an empirical law can never be certain; it must be at most probable. Nor can a theoretical law that deals with human decisions ever be quantifiable.

In general, one should expect that laws that are

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<sup>117</sup>Jean-Baptiste Say, A Treatise on Political Economy, trans. from the fourth edition of the French by C.R.Prinsep (Gregg & Elliot, Philadelphia, 1844), p. 133. Say's Law literally states "that it is production which opens a demand for products."

based upon strong assumptions should, following our analysis be universal, deterministic, necessary, certain, and teleological. As these assumptions are progressively weakened, the laws will lose those characteristics and become quantifiable and verifiable. With further weakening of the assumptions, generalizations become so loose that no economist whatever calls them laws.

Armed then with a precise idea of what specific laws mean to an economist and of what logical characteristics they are meant to possess, one then would next determine the purpose of such laws. In general, authors specify four different functions.

1. the declaratory function. Here the purpose of law is to clearly state some definite relationship, as the Ricardian Law of Association affirms the conditions under which one producer with greater comparative disadvantage will benefit from mutual trade.

2. the prediction function. Some scientific laws are designed to facilitate the forecasting of future events. This will be seen in Adolph Lowe's instrumental laws, which he designs to lead to definite macro-economic conditions.<sup>118</sup>

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Lowe, op. cit., passim.

Most econometric laws were designed to serve the forecasting function.

3. the epistemological function: Laws can be used as premises in a deductive process to derive further laws. Robbins gives an example of this. He says: "We could show how the use of money can be deduced from the existence of indirect exchange." 119

4. the control function: Given a knowledge of certain consistent interrelationships, one is able to control future data. As Menger states:

"The purpose of the theoretical sciences is understanding of the real world, knowledge of it extending beyond immediate experience, and control of it." 120

The final task will be to evaluate each system to determine if it is logically correct and complete. Are there, for example, contradictions between concept, use, method, and purpose? Some questions of interest will present themselves. Is the term "law", for example, necessarily limited to the traditional microeconomic

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119 Robbins, op. cit., p. 78.

120 Menger, Problems....., p. 55.

theory, to the exclusion of other areas of doctrine? Do economic laws have sanctions? Are there, indeed, universal laws in economics?

With this the organizational phase of this essay is complete. The roadmap has been finally drafted. Nothing remains but to proceed to investigate the detailed meanings of economic law.

### CHAPTER III

#### ECONOMICS WITHOUT LAW

A curious feature of economics is the special liking it has always shown for so-called "laws", particularly when formulated in quantitative terms. Very little attention has been paid to the question whether a distinct meaning could be given to such "laws" or whether they represented reality with any acceptable degree of approximation.

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Economists have been reluctant to draw the ultimate conclusions and to reject uses of terms and presentations of problems and "laws" which retain their position in economic science only by virtue of sterile tradition.

Gustav Cassel,  
On Quantitative Thinking  
in Economics. pp. 5-7.<sup>1</sup>

<sup>1</sup> Gustav Cassel, On Quantitative Thinking in Economics (The Clarendon Press, Oxford, 1935), pp. 5-7.



In this chapter it is proposed to review the negative attitudes of many economists toward economic law. Opposition first developed against the eternal, immutable, inexorable generalizations of the classical system. A certain opposition still persists against the modified laws that appear in modern microeconomics. It will be seen that rarely is the opposition to law total and unremitting; rather it has more often been a question of the denunciation of the a priori generalizations of the style of Ricardo on the grounds that they are not real. Often, some other type of factual or historical law is then substituted by such authors to replace the classical variety. Opposition has often welled against specific economic laws, notably the laws of distribution in the times of Stuart Mill or Say's Law throughout the last forty years. Also, to this writer's way of thinking, another new anti-law<sup>2</sup> trend has arisen during the same

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<sup>2</sup> We use the term "anti-law" as a convenient way to describe a critical attitude towards the term "law" as it has actually been applied in the literature. It is not meant to convey absolute rejection of the possibility of laws of any type whatsoever in social science.

period, which sparked by the otherwise unimpeachable lawman Milton Friedman, portends to lead economics more and more away from law in the future.

An anti-law point of view can be detected in various groupings of economists, who can be catalogued as follows:

1. those who early opposed the classical formulations, particularly certain historical economists of the nineteenth century;

2. the American Institutionalists;

3. modern no-law economists, who generally prefer macroeconomic themes to traditional price theory;

4. those economists who, as seen previously, are uncomfortable with the rigidity implied by the term law;

5. proponents of a new epistemology, who deemphasize the role of the traditional, permanent, "true" proposition, in favor of a new class of ad hoc instrumental hypotheses.

These various manners of resisting law are based on different outlooks. Some have opposed laws because of the unrealistic postulates on which they depend; others because of the fear that they represented vested interests on the part of certain classes of society; still others because they believe that the term law betokens too narrow a vision

of what economics is all about. Some have found the traditional methods inadequate to develop more workable hypotheses; some merely dislike the term itself.

### Historians Against Law

Some of the strongest opposition to the classical laws of economics came from various groups of historical economists of the nineteenth century. They rejected the practice of the traditional authors "simply to prop up rude generalizations for which the authority of 'laws' is claimed."<sup>3</sup>

They preferred to study the real world as it was and explain the features of national economies, not merely deduce some universal generalizations from intuitive premises.

The older German historians, Wilhelm Roscher (1817-1894), Bruno Hildebrand (1812-78), and Karl Knies (1821-98), did not oppose law per se; rather they favored a different type of law, more in conformity with their broader view of economic science. Knies, for example, as Haney tells us,<sup>4</sup> felt that there were no final laws in economics, as there are in physics and astronomy, and that the only laws in economics were in the form of an analogy.

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<sup>3</sup> Thomas Edward Cliffe Leslie, Essays in Political Economy, 2nd ed. (Longmans Green and Company, London, 1888), p. 173.

<sup>4</sup> History....., pp. 542-5.

Haney describes the younger German historical school as much more anti-law in outlook. Foremost was Gustav Schmoller (1838-1917), protagonist with Carl Menger in the famous battle of methods.<sup>5</sup> Others included Schaffle (1831-1904), Ludwig Joseph Brentano (1844-1931). One of their number, Karl Bucher (1847-1930) was partial to the laws of economic evolution.

In the British isles, historians also were induced to denounce the Ricardian deductions. Richard Jones (1790-1855) was notable among these critics of hasty generalizations<sup>6</sup> and the practice of classical economists to "snatch at general principles, and content ourselves with confined observations."<sup>7</sup> He also brings M. Destutt de Tracy to task for announcing "a universal law" before completion of an inductive procedure and for "speculating profoundly upon a limited stock of facts."<sup>8</sup> Much better would it be to engage first in historical and social studies.

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<sup>5</sup>The Methodenstreit was the name given to this historic controversy.

<sup>6</sup>Richard Jones, An Essay on the Distribution of Wealth and on the Sources of Taxation (John Murray, London, 1831), p. xl.

<sup>7</sup>Richard Jones, Literary Remains Consisting of Lectures & Tracts on Political Economy, Rev. William Whewell (Ed.) (John Murray, London, 1859), p. 569.

<sup>8</sup>Jones, An Essay....., p. xxiv.

A few excerpts from Cliffe Leslie will give us the flavor of many of these criticisms. Leslie not only thought that Ricardo deduced his abstractions "by a process which deserves a high place in the history of fallacies,"<sup>9</sup> but also that mankind is not yet ready for the type of reasoning exhibited by the classical writers. He said:

The abstract and a priori method yields no explanation of the laws determining either the nature, the amount, or the distribution of wealth.<sup>10</sup>

He also made the following comment relating to the Marshalls' book Economics of Industry:

Among the changes which we venture to suggest are, the total dismissal of the phrase "in the long run" from their pages, and a less sparing application of the term "laws" to provisional and hypothetical assumptions. There is a kind of brain that is prodigiously fertile in the production of "economic laws," giving the name to every crude and hasty generalization or guess that occurs to it.<sup>11</sup>

He goes on to warn economists that:

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<sup>9</sup> op. cit., p. 180.

<sup>10</sup> ibid., p. 189, cf. Haney, History....., pp. 531-2.

<sup>11</sup> ibid., p. 82.

...Political science has not reached the stage of a deductive science; that the fundamental laws of the economic world are still imperfectly known; and that they can be fully known only by patient induction. The aphorism of Bacon, moreover, respecting the application of human laws, should be constantly present to the mind of the student of economic laws: "Consequentiæ non est consequentia; sed sisti debet extensio intra casus proximos: alioqui labetur ad dissimilia, et magis valebunt <sup>12</sup> acumina ingeniorum quam auctoritas legum.

The opposition of the bulk of the historians was directed at the classical laws whether because of their intuitive premises, their failure to use the "scientific method," or their lack of realistic results. However, most of them did not object to the concept of "law" itself; nay rather they proposed various schemes of law themselves. These we reserve for the next chapter on the historical laws.

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<sup>12</sup> ibid., p. 241. Effects do not derive from effects (but from causes); an argument must be confined to proximate cases; otherwise it slides into apparent truths; and the sharp-wittedness of clever theorists will overshadow the authority of the laws they propose.

### Institutionalists Against Law

American Institutionalism is an economic philosophy that can be said to have a built-in anti-law bias. One must be careful, however, in identifying the individual economists as anti-law. For one thing, the older Institutionalists still retained much of the nineteenth century natural law fervor, as Richard T. Ely and Samuel N. Patten. Others like John R. Commons began as orthodox economic lawmen; but as their Institutionalism developed, little by little they abandoned their pro-law stance. Generally anti-law were Sumner Slichter, Wesley C. Mitchell, Allan G. Gruchy, and C. E. Ayres. On the contrary, John Maurice Clark, Frederick C. Mills, Morris A. Copeland, and Thorstein Veblen held a middle position.

In the first place, Institutionalism is a rebellion against classical economics. It rejects the view of economics as a series of deductions from basic first principles, but instead envisions it as a broad investigation into American socio-economic culture as a whole. Its exponents felt that the classical writers, by limiting themselves to a handful of restrictive propositions, were not shedding light on the dynamic movements of modern capitalism as a



whole. In particular, they found fault with the neo-classical attempt "to isolate the phenomena of Economic Statics and to attain the laws which govern them."<sup>13</sup>

In orthodox theory the "static laws of economic science were held to be independent of cultural or social organization; they were 'fundamental' or 'universal,' and operated 'in the most advanced state, as well as in that of the most primitive'."<sup>14</sup> Against this view some heterodox economists brought forth Institutionalism.

Institutionalism, or "holistic" economics, as Gruchy prefers,<sup>15</sup> defines economics in the broadest possible sense as "the study of the structure and functioning of the evolving field of human relations which is concerned with the provision of material goods and services for the satisfaction of human wants."<sup>16</sup> It does not concentrate on individual economic behavior as much as on the social effect of behavior within the total economic environment.

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<sup>13</sup> John Bates Clark, Essentials of Economic Theory, (Macmillan Publishing Co., Inc., New York, 1907), p. vii.

<sup>14</sup> Allan G. Gruchy, Modern Economic Thought: The American Contribution (Prentice-Hall, Inc., Englewood Cliffs, N.J., 1947), p. 557. Reprint: (Augustus M. Kelley, New York, 1967). In this section Gruchy's analysis will be generally followed.

<sup>15</sup> Ibid., p. viii; see also Briefs, op. cit., pp. 17-22.

<sup>16</sup> Gruchy, op. cit., p. 550.

There is no search after the precise nature of economic science. It is, instead, the grand picture of "twentieth century American capitalism" that is being focused on. Such an all-encompassing vision, as was noted above, is not conducive to a system of precise lawlike postulates.<sup>17</sup>

The holistic assumptions allow for no vestige of natural law. There is no automatic inbred harmony. At times cooperation predominates (Tugwell); at times there is cognizance of class struggle, witness the dedication of Commons to the problems of labor organization. There is not the singular emphasis on internal individual psychology, forcing hedonistic man to maximize his satisfactions or his money income; but rather on a pragmatic, collective psychology, whereby man's behavior is considered "an organized pattern of action."<sup>18</sup> Man breaks his utilitarian strait jacket, only to be placed upon the treadmill of adjustment to this "one great, integrated,

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<sup>17</sup> supra, pp. 67-71.

<sup>18</sup> Manuel Gottlieb, "The Theory of an Economic System," American Economic Review, Papers and Proceedings, (May, 1953), Vol. XLIII, no. 2; cited by Briefs, op. cit., p. 19.

going-concern process." Newton's static mechanics are out. Instead, contemporary man is exploring dynamic roads to emerging progress.

To replace the classical emphasis on natural law, introspection, and regularity, the Institutionalists present to us a panorama of an evolving, dynamic, post-Darwinian mankind. No longer is the search for absolute eternal verities, but rather for explanations of movements like the business cycle or the buildup of monopolistic concentration. Commons tells us how ultimate truth has yielded to a new form of adaptable truth:

Pragmatic truths depend upon the existing state of knowledge within a scientific field; and as the boundaries of the science are pushed back and the state of knowledge improved, pragmatic truths are altered, improved, and expanded.<sup>19</sup>

Or as Ely has expressed it:

Few truths are more easily admitted or more persistently ignored than that of change in human life and condition. Nothing so invalidates theories, laws, general principles, institutions, and enterprises as this great law of change.<sup>20</sup>

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<sup>19</sup> Gruchy, op. cit., p. 158.

<sup>20</sup> Richard T. Ely, Outlines of Economics, 5th rev. ed., (Macmillan Publishing Company, New York, 1932), p. 7; original edition: (Chautaugua Press, New York, 1889.)

This penchant for change blends with the philosophical outlook of most Institutionalists. Although one sees occasional evidence of positivism reflected in their distrust of deduction and preference for facts, they are generally constructive rationalists in the Hayek-Popper sense.<sup>21</sup> They are social engineers<sup>22</sup> (Mitchell), greatly interested in reform (Commons), and in social experiment (Tugwell.)

By what method does holistic economics pursue its investigations? Retaining its instinctive dissatisfaction with the logical rigors of deductive reasoning, it offers a blend of inductive and historical analysis rich in content, but devoid of the classical formalism. There is a rejection of definition, or "conceptualism." Commons and Tugwell respectively substituted "constructive research" and "humanistic naturalism" for the a priori reasoning of orthodox economics. Briefs, following Gottlieb, affirms that holistic logic is informal and must be discovered empirically.<sup>23</sup>

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21 cf. supra, pp. 61-62.

22 Wesley Clair Mitchell, "The Prospects of Economics," The Trend of Economics, Rexford Guy Tugwell (Ed.), (F. S. Crofts and Company, Inc., New York, 1930), p. 33.

23 op. cit., p. 21.

Such a "cultural" approach, so dominated by change, does not lead to the formulation of universal propositions. "When the holistic economist looks for scientific generalizations about economic activity," notes Gruchy, "he does not seek generalizations that will be applicable to the economic spheres of all types of human cultures."<sup>24</sup> Thus we are furnished with separate generalizations for each industry, each subsector displaying its own special regularities; each separate period of history will require distinct treatment.

"Does this mean," asks Gruchy again, "that economics becomes a matter of pure relativity since its generalizations have validity only at a particular point in historical time?"

"The fixity" he answers, "of human nature would in itself be a sufficient guarantee against the possibility of any such rank relativism."<sup>25</sup> He goes on to add that what was learned about competitive capitalism and marginalism is still useful; it forms the point of departure for future theorizing.

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<sup>24</sup> op. cit., p. 553.

<sup>25</sup> Ibid., p. 555.

Thus Institutionalism wavers in its acceptance of the universal classical laws, which it feels are wanting in sufficient consideration of facts. As Gruchy notes again:

Where the economist sets out to make the core of his science a body of universal, formal principles, he later finds it impossible to clothe the logical structure of his thought system with the flesh of reality.<sup>26</sup>

In analyzing John Bates Clark's fundamental postulate, his law of distribution, which implies that "each unit of each productive factor unavoidably gets the amount of wealth it creates"- its "virtual product", Veblen denies the relevance of this law in non-competitive conditions both theoretically and in its application in practice. He states:

The infirmity of this theoretical scheme (of the marginal utility school) lies in its postulates, which confine the inquiry to generalisations of the teleological or deductive order.<sup>27</sup>

He goes on to explain that the marginalists use the

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<sup>26</sup> op. cit., p. 27.

<sup>27</sup> Thorstein Veblen, "The Limitations of Marginal Utility", The Place....p. 234. Originally from: Journal of Political Economy (November, 1909), Vol. XVII, No. 9.

principle of sufficient reason and not that of cause and effect like modern science.<sup>28</sup> Veblen makes sufficient reason synonymous with teleological.<sup>29</sup> Cause and effect as well as habit are much more important sources of information, he feels, than the hedonistic calculus. He adds:

The postulates of marginal utility, and the hedonistic preconceptions generally, fail at this point in that they confine the attention to such bearings of economic conduct as are conceived not to be conditioned by habitual standards and ideals and to have no effect in the way of habituation. They disregard or abstract from the causal sequence of propensity and habituation in economic life and exclude from theoretical inquiry all such interest in the facts of cultural growth, in order to attend to those features of the case that are conceived to be idle in this respect.<sup>30</sup>

The holistic economists, in their study of individual sectors of the American economy and of the interrelations between them, do come forth with uniformities, that should probably best be called generalizations. They are usually historical in origin and flavor. Examples of such generalizations are the extremely intricate uniformities of stock-

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<sup>28</sup> Veblen, "The Limitations of Marginal Utility," The Place..., p. 243. Originally from: Journal of Political Economy (November, 1909), Vol. XVII, No. 9.

<sup>29</sup> ibid., pp. 238-9.

<sup>30</sup> ibid., p. 243.

holder behavior (Berle and Means), the relations between monopoly and competition (Veblen), or the behavior of labor unions (Commons).

Such generalizations in no way can be classified as lawlike; they are specifically designed not to be universal or necessary. Again, in the words of Gruchy:

When they investigate the inner core of the mature American economy, these heterodox economists find themselves unable to create anything comparable to the precise, abstract "economic laws" developed by the equilibrium economists.

.....  
The functioning of the hybrid American economy, with its many shades of economic enterprise ranging from the highly competitive to the highly monopolistic, cannot be satisfactorily reduced to a series of formal economic generalizations of the type which interested the orthodox economists of the nineteenth century.<sup>31</sup>

The same holds true for economic dynamics, as Gruchy again notes:

When formulating a theory of economic development the economist does not seek to establish any "laws" of economic change. In this field of analysis the search for laws similar in nature to the laws of the natural sciences or to the analytical principles of equilibrium economics has proved to be fruitless. There

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<sup>31</sup>  
op. cit., p. 611.



is nothing sufficiently regular or uniform about the behavior of the factors leading to economic change to permit the formulation of any laws which would have application to all eras in the evolution of economic society.<sup>32</sup>

This then has been a brief exposition of a complete anti-law philosophy. One cannot help but wondering, in spite of all the above, why the laboriously produced statistics of a Mitchell or a Kuznets would not have been considered to betray some lawlike regularities, at least in the hands of a positivist analyst. Even Briefs detects a certain lawfulness in the holistic generalizations. Following Veblen, he cites the example that "particular economic problems are but items in the scheme of modern capitalism" and "are, so to speak, subject to the logic or law of capitalism."<sup>33</sup> Even some price movements seem to betray a kind of lawfulness; however, the phenomenon does not seem sufficiently strong for the holistic writers themselves to adopt the term law.

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<sup>32</sup> ibid., p. 556.

<sup>33</sup> Briefs, op. cit., p. 22.

### Law as a Reflection of Special Interests

Another type of anti-look outlook can be seen in the writings of J. A. Hobson. This author did not oppose the concept of law per se; he in fact did advocate, as we shall see, a form of holistic law. Nor did he oppose the classical and socialist laws primarily because he differed about the nature and scope of economic science, but rather because of his opposition to economic privilege.

It was Hobson's contention that all economic laws were the product of special economic interests, so much so that it would be impossible to find disinterested students of economics "who have no personal axe to grind, and will formulate laws and principles in a really 'scientific' system."<sup>34</sup> He maintained that economic laws were designed to serve the inherent and especially short-range self interest on the part of those who govern the economic system. Furthermore they misrepresent human nature. This is how he expressed this conviction:

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J. A. Hobson, Free-Thought in the Social Sciences (George Allen and Unwin, Ltd., London, 1926), p. 74.

...[Its] concepts are instinctively exploited by the controllers of intellectual activities, with a bias for Conservatism and Vested Interests (intellectual and moral as well as material) partly in order to win acquiescence for the status quo, or slow change, partly so as to suggest concepts of harmony and inevitable 'laws' against which it is foolish, wrong, and futile to attempt to kick. The net effect is to deny the existence and operation of the creative power of the human will, by presenting Human Nature itself as a static being, responding to laws that are immutable in the same sense and degree as those which govern the operations of stars and plants.<sup>35</sup>

The entire capitalist system is guided by sinister motivation. He noted that "the main concern of a theory subservient to the new capitalism was to furnish 'laws' conducive to abundant and reliable supplies of capital and labor at 'reasonable prices.'<sup>36</sup>" The law of rent was to benefit the landowner, the law of wages to restrain the worker. From the very selection of the themes described in economics, to the analytic processes employed, all law was designed to be a mechanistic, conservative obstacle to all progressive innovation.

Even the socialist economists produced "high falutin" laws, based on the "class and personal interests and passions"

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<sup>35</sup> ibid., pp. 29-30.

<sup>36</sup> ibid., pp. 79-80.

which perverted economic theory; ostensibly they did this in an effort to assist the laboring classes.

Hobson maintained that this "reign of law" was founded on a certain intellectual dishonesty and should be reconsidered. Methodologically, he opposed the utilization, as he saw it, of a mass inductive process guided only by the observer's subjective and easily influenced feelings. He expressed this as follows:

The notion of applying a strictly inductive reasoning to a primitive mass of objective facts, or phenomena, which by classification and a series of abstractions, shall discover truths or laws in an ascending scale of generality, building them up into the unified structure of a science rendered ever more exact by quantitative<sup>37</sup> analysis, will not bear close consideration.

What Hobson was after, incidentally, was an economics that took into account the welfare of the consuming public, especially by considering the social nature of value. Notwithstanding the fact that he was disposed to reject the neoclassical laws, he did consider that economics should be "concerned with the discovery of the laws or principles of human nature and its environment."<sup>38</sup> Such laws would reflect some form of "large and elastic" Welfare for the

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<sup>37</sup> ibid., p. 18.

<sup>38</sup> ibid., pp. 63-4.

whole of mankind and indicate "both what man is 'after' and what he 'ought' to be after." <sup>39</sup>

His emphasis on reason "...to co-ordinate the activities of Man" gives clue to his constructive rationalism; and while he evidently is not against law per se, he rejects all neo-classical and socialist formulations of law. <sup>40</sup>

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<sup>39</sup> ibid., p. 168.

<sup>40</sup> Ayres holds that Hobson never renounced classical value theory. cf. Clarence E. Ayres, The Theory of Economic Progress (University of North Carolina Press, Chapel Hill, N. C., 1944), p. 278.

Modern Economists and Social Scientists Against Law

There is a large number of economists who evidence no desire at all to use the term law when referring to economic generalizations. Perhaps they object to the rigidity of the term, and its association with inflexible, theoretical economics; or they might consider themselves to be following what they deem as modern practice, especially if they write in other than the traditional micro-economic areas.

Very few economists make no reference whatsoever to economic law. Many limit themselves to the laws of returns (Gustav Cassel, Joan Robinson, and Edward Chamberlin) and others add something about increasing and decreasing costs (Irving Fisher). It is not implied that they make no mention of supply and demand, comparative advantage, or utility, but merely that they do not discuss them under the caption "law."

Even in microeconomics, the traditional home ground for law, some price theorists use the term sparingly, as for example H. H. Liebhafsky, who, in a major textbook, discusses only the laws of returns and the law of variable proportions.<sup>41</sup> On the contrary, Due and Clower offer a

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<sup>41</sup> H. H. Liebhafsky, The Nature of Price Theory (The Dorsey Press, Inc., Homewood, Ill., 1963), pp. 119-33.

much fuller complement of laws;<sup>42</sup> while on the other extreme, mathematicians Henderson and Quandt merely offer us "the almost universal law of diminishing marginal productivity"<sup>43</sup> with hardly another word on law.

Baumol, instead, prefers to use the term theorem, which he equates with proposition or rule. Thus he speaks of an elasticity theorem, Euler's theorem, and the theorems of welfare economics.<sup>44</sup> On the other hand, he includes the 'laws' of diminishing marginal utility and diminishing returns, and Walras' Law. He thus uses the term law conventionally, especially when quoting the received doctrine, preferring "theorem" to other formulations.

By and large, most economic writings that are not related to price theory do not have much occasion to mention the traditional economic laws. As a class, the followers of John Maynard Keynes are within this category;

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<sup>42</sup> John F. Due and Robert W. Clower, Intermediate Economic Analysis, 5th ed., (Richard D. Irwin, Inc., Homewood, Ill., 1966.) Original edition: 1947.

<sup>43</sup> James M. Henderson and Richard E. Quandt, Microeconomic Theory: A Mathematical Approach (McGraw-Hill Book Co., Inc., New York, 1958), p. 46.

<sup>44</sup> William J. Baumol, Economic Theory and Operations Analysis, 2nd ed., (Prentice-Hall, Inc., Englewood Cliffs, N. J., 1965). Original edition: 1961.

however, in this they are not in concert with the master, for, as we shall see, Keynes has formulated several psychological laws;<sup>45</sup> in this, most of his followers have not kept pace.

We have limited our discussion to the term "law," not considering it convenient to widen the extent of this study by including an analysis of the many substitute terms: principle, theory, generalization, proposition, doctrine, theorem. However, it appears from the research made that there is no other single term that is actually being substituted in place of law. In fact, there is no agreement among economists whatsoever as to what economic regularities should best be called. We leave for a future study an assessment of this obvious void in economic methodology.

We add a few examples of the objections offered in other social sciences to the use of the term law. In fact, the literature on the methodological implications of law seems to be much more abundant among the historians, sociologists, psychologists, and other practitioners than among economists. Many of these have expressed doubt about the validity or the usefulness of law.

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<sup>45</sup> Infra., pp. 219-21.



For example, Peter Winch<sup>46</sup> argues that the "very idea of a nomothetic social science is unintelligible and self-defeating."<sup>47</sup> He believes that social rules rather than laws or theories determine much of human conduct. Gewirth<sup>48</sup> points out how laws may be self-fulfilling, because man is both the "knower and subject-matter of these laws." He cites how certain economic predictions lead to actions which offset those predictions. Therefore, social laws cannot show the same permanence as can natural laws. Behavior "may be too complex to deal with in terms of law," says, B. F. Skinner,<sup>49</sup> reinforcing Hayek's point.<sup>50</sup>

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<sup>46</sup> Peter Winch, The Idea of Social Science (Humanities Press, Inc., New York, 1958); excerpts reprinted in Krimerman, op. cit., pp. 317-331, as "Sociological Understanding and the Impossibility of Nomothetic Social Science."

<sup>47</sup> Krimerman, op. cit., p. 213.

<sup>48</sup> Alan Gewirth, "Can Men Change Laws of Social Science," Philosophy of Science (July, 1954), Vo. 21, No. 3, pp. 229-41; reprinted in Krimerman, op. cit., pp. 217-27, as "Voluntarism: Social Uniformities Depend on the Choices of Men." cf. p. 218.

<sup>49</sup> B. F. Skinner, Science and Human Behavior (Macmillan Publishing Company, Inc., New York, 1953); excerpts reprinted in Krimerman, op. cit., pp. 29-40; cf. p. 34.

<sup>50</sup> cf. infra, pp. 135-8.

Peters and Tajfel<sup>51</sup> find an "impassable gulf" between physiology and human action, thus confirming Skinner's and Winch's doubts about the usefulness of law.

One of the most persuasive authors arguing against the need for laws, especially in history, is Michael Scriven. Not that he disbelieves in the validity of laws, but rather he discounts the need that all explanation must be in terms of law. "One cannot regard explanations as unsatisfactory," he states, "when they do not contain laws, or when they are not such as to enable the event in question to have been predicted."<sup>52</sup> For Scriven, a truism, though not as elegant as a law, can fit the needs of an explanation as usefully as can a law. In fact, the central

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<sup>51</sup> R. S. Peters, and H. Tajfel, "Hobbes and Hull - Metaphysicians of Behaviour," British Journal for the Philosophy of Science (May, 1957), Vol. 8, No. 29, pp. 30-44; reprinted in Krimerman, op. cit., pp. 279-288, as "That Behaviorism Cannot Account for Human Thinking."

<sup>52</sup> Michael Scriven, "Explanation and Prediction in Evolutionary Theory," Science (August 28, 1959), Vol. 130, No. 3374 p. 477; reprinted in Krimerman, op. cit., pp. 117-125, as "Explanation and Prediction as Non-Symmetrical." See, also, Scriven, "Truisms as the Grounds for Historical Explanations" in Theories of History, Patrick Gardiner (Ed.), (The Free Press, a Corporation, Glencoe, Ill., 1959), pp. 443-471. Reprinted in Krimerman, op. cit., pp. 94-116, as "The Covering Law Position: A Critique and an Alternative Analysis."

error of many writers has been to insist that all explanation must be one-hundred percent proved or justified. He thereby moves scientific thinking more towards the region of intuition and probability, of which stuff the real world is made, arguing that we cannot always have the absolute guarantee of law to prove every historical fact.

For want of space we terminate our discussion of these objections on the part of modern social scientists to the use or appropriateness of "laws," as a tool in modern epistemology. A much more thorough study could profitably be made of the broader aspect of our subject. It is clear that serious methodological issues are at stake, and that the validity of the conclusions of several of the human sciences depends upon their successful resolution.

Philosophy Against Law

Generalizations that Are Not Laws - Milton Friedman.

It is next proposed to present a line of thinking that the writer suggests verges on being anti-law in its implications. This particular outlook offers a view of economics and of economic methodology that is not conducive to the development of a catalogue of definitive propositions, but rather of temporary ad hoc hypotheses always revisable and unstable. Likewise, economic propositions here serve the purposes not so much of representing what is true, as to be instrumental in making predictions. Theory and method are not, respectively, a body of truths and logical canons of inference, but rather transitory propositions and vehicles used primarily for their predictive power.

The principal exponent of this view, and perhaps the focal point of a significant portion of the post-war discussions on methodology, is Milton Friedman.

This in no way implies that Friedman does not believe in "law" and, therefore, is some sort of agnostic. Quite the contrary; he has been on many occasions a most orthodox believer and defender of the classical faith.

In his explanation, for example, of the Marshallian law of demand, he affirms that it "is truly a general law, not subject to the exceptions that have been made in recent literature"<sup>53</sup> His own emphasis indicates his acceptance of some form of inviolate consistency in that law; in fact, he dismisses much contrary opinion. In his text on Price Theory,<sup>54</sup> he offers an extended discussion of the Law of Variable Proportions. He does, however, put the law of supply and demand in quotation marks.

Friedman's personal contributions to the body of theory, notably on the consumption function, monetary theory and history, and freedom, offer little reference to economic laws. As a theoretician, he has been one of the most versatile members of the profession; and as emphasized previously, it must not be expected that each scientist follow a single line of research or of method.

It is Friedman, the methodologist, who has become the principal spokesman for this trend away from law.

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<sup>53</sup> Milton Friedman, "The Marshallian Demand Curve," Essays...., p. 73. Reprinted from Journal of Political Economy (December, 1949), Vol. LVII, No. 6, pp. 463-95.

<sup>54</sup> Milton Friedman, Price Theory, A Provisional Text (Aldine Publishing Co., Chicago, 1962).

In his famous article on "the Methodology of Positive Economics,"<sup>55</sup> he advanced the position that realism is not of prime importance when dealing with assumptions; in fact, he held the view to be "fundamentally wrong and productive of much mischief" that supposes that "hypotheses have not only 'implications' but also assumptions and that the conformity of these 'assumptions' to 'reality' is a test of the validity of the hypothesis different from or additional to the test by implications."<sup>56</sup> Friedman tells us that the purpose of a science is to yield "valid and meaningful" predictions. All the rest: whether the assumptions of a hypothesis are true, objective, or unique is not the principal concern of the scientist. The hypotheses themselves are always subject to displacement by newer hypotheses, and cannot be considered as final.<sup>57</sup>

In all this discussion Friedman makes no attempt to speak of laws. He was taken to task by a large number of

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55 Essays..., pp. 3-43.

56 ibid., p. 14.

57 ibid., p. 9.

his colleagues for the positions taken in this article.<sup>58</sup>

Nagel, for example, rebuts Friedman's contention that the truth of assumptions is irrelevant and the implication that there is no substantive value in the content of economic postulates. He points out that economic propositions were never meant to be descriptive of individual cases in all their unique differences, but rather to represent what is essential in each particular situation. A proposition refers to the general case, that is, to the special case stripped of all unnecessary, individualizing distinctions. These propositions are laws that refer to idealized rather

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D.V.T. Bear and D. Orr, "Logic and Expedience in Economic Theorizing," Journal of Political Economy (April, 1967), Vol. 75, No. 2, pp. 188-96. Louis De Alessi, "Economic Theory as a Language," Quarterly Journal of Economics (August, 1965), Vol. LXXIX, No. 3, pp. 472-77; "Reversals of Assumptions and Implications," Journal of Political Economy (July/August, 1971), Vol. 79, No. 4, pp. 867-77. Jack Melitz, "Friedman and Machlup on the Significance of Testing Economic Assumptions," Journal of Political Economy (February, 1965), Vol. LXXIII, No. 1, pp. 37-60. Ernest Nagel, "Assumptions in Economic Theory," American Economic Review, Papers and Proceedings (May, 1963), Vol. LIII, No. 2. Eugene Rotwein, "On 'The Methodology of Positive Economics'," Quarterly Journal of Economics (November, 1959), Vol. LXXIII, No. 4, pp. 554-575; "On 'The Methodology of Positive Economics': Reply," Quarterly Journal of Economics (November, 1962), Vol. LXXVI, No. 4, pp. 666-8. Paul A. Samuelson, "Theory and Realism: A Reply," American Economic Review (September, 1964), Vol. LIV, No. 4, pp. 736-39; "Professor Samuelson on Theory and Realism: Reply," American Economic Review (December, 1965), Vol. LV, No. 5, pp. 1164-72; "Problems of Methodology - Discussion," American Economic Review, Papers and Proceedings (May, 1963), Vol. LIII, No. 2, pp. 231-236; Herbert A. Simon, ibid., pp. 229-231.

than individualized phenomena.<sup>59</sup>

Rotwein<sup>60</sup> suggests that a distinction should have been made between theory and law, as follows: If, as in the view espoused by Friedman, the assumptions of a particular hypothesis (the antecedent "If A," in the conditional, "If A, then B"), cannot be verified, then we have a "theory." "A" is somehow unreal; but the reality of the effect of "A", that is "B", implies at least a tentative acceptance of A. In the stringent case, however, when both "A" and "B" are verified, then we have the case of a law. In a theory "A" is presumed; in a law "A" is verified.

It is suggested here that Friedman is not at all concerned with law, but that, on the contrary, his concept of economic generalization lies at the opposite end of the spectrum of generalizations from what would generally be called laws. Now, it is elementary that every science must develop some set of generalizations; otherwise it would not be a science. So Friedman, correctly, insists that economics does contain such a body of generalizations.<sup>61</sup>

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<sup>59</sup> Nagel, "Assumptions..."; He also pointed out some ambiguities in Friedman's text.

<sup>60</sup> E. Rotwein, op. cit., cf. supra, pp. 29-31.

<sup>61</sup> Essays..., p. 39.



From reading his article, it is apparent that he often refers to these generalizations as hypotheses. For example, he calls the physical "law" of falling bodies "an accepted hypothesis."<sup>62</sup> Now Friedman's hypotheses do not reflect a body of the essential conclusions of economics that are virtually universal and true, as one would expect if they were to be called laws. On the contrary, they are generalizations that do not represent objective truth (the object of the article is to disclaim that); they are rather selected from many alternative explanations merely on the pragmatic basis that they have shown greater predictive power than others, not for what they objectively say. These generalizations can never be proved to be conclusively true,<sup>63</sup> and they are retained until a less unsatisfactory proposition is found to take their place.

Neither Friedman, nor anyone else, would label such generalizations as laws. They are vehicles for prediction, not receptacles for truth. This judgment generally follows

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<sup>62</sup> ibid., p. 16.

<sup>63</sup> ibid., p. 9.

from the assumptions that Friedman lays down for himself in the Methodology article. In the first place, he defines economics as a discipline for making predictions, not for developing objective descriptions of reality. Then, his positivist philosophy should force him to disclaim all interest in absolute explanations. And lastly, his notion of causality is not such as to illustrate how effects follow logically from their causes, but is of another stripe. Let us illustrate each of these points.

His definition of economics gears us towards prediction, rather than towards an analysis of what is permanent in reality. "Economics as a positive science," he says, "is a body of tentatively accepted generalizations about economic phenomena that can be used to predict the consequences of changes in circumstances."<sup>64</sup> He also labels as a platitude the statement that a theory is "necessarily provisional and subject to change with the advance of knowledge."<sup>65</sup> Now a body of tentative generalizations, or provisional theories, is hardly a body of laws in anybody's book; in fact, the two words "law" and

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<sup>64</sup> ibid., p. 39.

<sup>65</sup> ibid., p. 41.

"provisional" are antithetic. Thus Friedman himself rightly excludes the term law from this article; in fact, he seems to prefer "generalizations" in much of his writing. This definition also fails to pinpoint something that is particularly "economic," making difficult the process of arriving at precise conclusions. It is a definition that does not foster laws.<sup>66</sup>

Secondly, in this article Friedman displays a distinct positivist leaning, contrary to his usual performance as what we have called a critical rationalist. By "positive" here is not meant positive in the sense of "what is," in contrast with the "what ought to be" of normative economics. In that meaning Friedman is perhaps the most outstanding of the positivists. Rather, what is referred to is the brand of logical positivism that only finds truth in objective empirical evidence. Friedman seems to reflect much of the teaching of logical positivism, though he does

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<sup>66</sup> Elsewhere Friedman poses a more traditional definition. "An economic problem exists wherever scarce means are used to satisfy alternative ends." This definition fosters a stronger notion of law; in fact Robbins uses it in precisely such a manner. Cf. Friedman, Price Theory..., p. 6; Robbins, op. cit., passim.

not subscribe to the requirement that reasoning must be divorced totally from all unverified a priori propositions. <sup>67</sup>

This can be seen in his ambivalent stand on the meaning of theory. At one moment he considers theory as language, at another as a body of substantive hypotheses; in either case his explanation smacks of positivism.

For example, he states:

Viewed as a language, theory has no substantive content; it is a set of tautologies. Its function is to serve as a filing system for organizing empirical material and facilitating our understanding of it; and the criteria by which it is to be judged are those appropriate to a filing system...

Factual evidence alone can show whether the categories of the "analytic filing system" have a meaningful empirical counterpart, that is whether propositions in the language are "right" or "wrong!"<sup>68</sup>

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<sup>67</sup> The principal teachings of logical positivism are:

- 1) there are no knowable underlying realities (soul, truth, cause, utility, etc.); and any attempt to demonstrate the existence of entities beyond the reach of possible experience is void of meaning;
- 2) all scientific explanation is empirical, and there are no ultimate, absolute, "metaphysical" explanations;
- 3) philosophy is nothing but a manipulation of language and linguistics;
- 4) all statements must be falsifiable; otherwise they are tautological.

See, for example, Feigl, op. cit., passim.

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Essays..., p. 7.

He seems, along with the positivists, to have converted epistemology into a semantic-linguistic problem. In the alternate view of theory, he continues in the same vein:

Viewed as a body of substantive hypotheses, theory is to be judged by its predictive power for the class of phenomena which it is intended to "explain." Only factual evidence can show whether it is "right" or "wrong" or, better, tentatively "accepted" as valid or "rejected." ...the only relevant test of the validity of a hypothesis is comparison of its predictions with experience...Factual evidence can never "prove" a hypothesis; it can only fail to disprove it....<sup>69</sup>

Here again, positivist principles are rampant. Hypotheses are proved with empirical evidence; nothing a priori is in sight. The choice of one hypothesis [law] among many is clearly arbitrary; and all we know is that it is presumably valid until it is rejected by experience.

According to positivist philosophy, there is really no knowable body of truth. Even if we should have a "body of systematized knowledge concerning what is," this knowledge is tentatively accepted, merely apparent, and is not meant to reflect the substantive content of reality. In fact, we can just as well eliminate references to reality.

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<sup>69</sup> ibid., pp. 8-9.

Hypotheses (laws) are treated not as true, but "as if" they were true;<sup>70</sup> indeed, to be important "a hypothesis must be descriptively false in its assumptions."<sup>71</sup>

Friedman was taken to task by Melitz, who objected that any discrepancy between assumptions and facts was not to be ignored; in fact, such a situation should be a "source of useful knowledge."<sup>72</sup> Likewise, he complained that false elements in a hypothesis are not recognized to have any objective effect on the implications of the theory.

Friedman thus makes us prognosticators instead of photographers of reality. And the only evidence we have for the success of our predictions is that our experiments have not disproved our generalizations. We are forced to recognize the important part logical positivism plays in Friedman's Methodology article. Likewise, it is clear that Friedman is not wedded to any one method in practice. Since it is unimportant that his assumptions be verified, their exact nature eludes the analysis. The proof of the pudding here lies in successful prediction; all the pre-

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<sup>70</sup> ibid., p. 16.                      <sup>71</sup> ibid., p. 14.

<sup>72</sup> Melitz, op. cit.

liminaries are subordinated to that end.

Evidently, Friedman is not a total positivist, as is Hutchison, in proscribing, as we shall see, either the hypothetical method, intuitive premises, or the deductive method, in general. He would accept the "outmoded psychology" and theorizing of the neo-classical and mathematical economists, provided those methods lead to predictable results. In fact, it seems that he departed from more orthodox methods and has adopted his positivistic stance precisely in order better to defend the unrealism of the neo-classical assumptions, like perfect competition.

As a final point, the special notion of causality implied in Friedman's Methodology article should be pointed out. Because an author's idea of law is tied to the notion of causality that he holds, it would be proper here to review three different concepts of causality.

The classical form of causality implied the age-old notion of the efficient cause, in the same sense that the carpenter is the maker (efficient cause) of a piece of furniture. A cause is the antecedent of some definite consequence, whether such consequence be voluntarily intended or not. This cause/effect relationship can be considered in two different forms: one in a non-philosophical

analysis, wherein no account is taken of ultimate considerations (like the nature of the "beings" or "forces" involved), much as is accomplished in a science laboratory. The second, or philosophical, approach implies the existence of some real force (much as in Newton's laws), whose application changes the relations between the variables under consideration. This cause is deterministic and real, and is the very opposite of a chance occurrence. Clearly, the implication of the existence of this metaphysical entity called "force" immediately has disqualified this alternative explanation of causality in the thinking of empiricist analysts.

Another interpretation, quite in opposition to the above, is that causality has nothing to do with cause and effect, or with an empirical learning process. It is neither an a priori principle nor an a posteriori description of a repetitive process. Causality in this view is, instead, a methodological tool that guides the scientist. If he is working with a system that has not been yet totally explained, causality is what impels him to search out all the interconnected realities of that system that remain yet to be clarified. Nagel describes how Adams and Leverrier were not able to explain the irregular rotation



of the planet Uranus by any known astronomical law. To account for this irregularity they then posited the existence of the then-unknown planet Neptune. This search then for a completely determined system is what is known as causality. It is methodology, not metaphysics. Thus causality here says nothing about the real world; it is rather a rule or "maxim for inquiry."<sup>73</sup> This view of causality has not been emphasized in the economic literature as yet, although it has a strong affinity with the Friedman view.

In the Friedman analysis we are introduced to a world wherein the relation between variables (antecedent and consequent) is not one of cause and effect, but rather one of concomitance between them. He is interested in whether or not an hypothesis works, that is, whether a particular predicted event does or does not follow upon another, rather than in the existence of some process or entity that does something to produce the event. This analysis of causation originated with David Hume. It holds that things which are observed together on a regular basis, that is, things that are correlated, reflect causality.

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<sup>73</sup> ibid., p. 320.

It is not interested in determining which, if any, are the decisive "causes" of a phenomenon. This Humean outlook is in line with an anti-causal attitude now prevalent among scientists. In Friedman's case it indicates an ad hoc, contingent, happenstance relationship between the antecedent and consequent of a generalization, never one brought about by an "efficient" or a necessary cause. It is this contingent relationship that underlies Friedman's generalizations.

Which of the above causal explanations do scientists subscribe to: the Humean concomitance, the "maxim for inquiry," or the classical cause and effect?

It is well known that the philosophers of science have turned away, howsoever temporarily, from the classical version. The principal instance of this occurs in quantum mechanics, because of the difficulty of measuring both the momentum and the position of electrons in applying the famous relations of Werner Heisenberg.<sup>74</sup> Nagel describes the conclusions that scientists have drawn from this difficulty:

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<sup>74</sup> cf. Nagel, The Structure...., pp. 293-294

The equations of quantum mechanics cannot, therefore, establish a unique correspondence between precise positions and momenta at one time, and precise positions and momenta at other times. Nevertheless, quantum theory is capable of calculating the probability with which a particle has a specified momentum when it has a given position, and vice versa. Accordingly, quantum theory is not deterministic in its structure, but inherently statistical in content; and the great successes of the theory must be taken as an indication that the "principle of causality" is inapplicable in the domain of subatomic processes.<sup>75</sup>

Nagel personally argues against this conclusion, and the corollary that "all physical laws deducible from quantum mechanics must be statistical."<sup>76</sup> However, this difficulty has had great influence in scientific circles.

In economics also, the Humean view of causality prevails; it is a view that militates against the possibility of necessary and universal laws. We will note this especially in discussing econometric causality.<sup>77</sup>

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<sup>75</sup> ibid., p. 295.

<sup>76</sup> ibid., p. 315.

<sup>77</sup> Infra, pp. 179-81.

All Laws are Guesses - Karl Popper. There is a striking resemblance between Friedman's philosophy, as presented in his methodology article, and that of Karl Popper. Though Popper classifies himself as a realist, and not a positivist, he holds many of the positivist beliefs: for example, he rejects metaphysical propositions, has a dislike for definitions, and does not believe that we can ever establish absolute truth.

Popper holds "all laws or theories as 'hypothetical or conjectural'", that is, as guesses."<sup>78</sup> What counts are theories and hypotheses which can "objectively" withstand all conceivable forms of testing. Of the many possible hypotheses that might be helpful in explaining an event, he only retains, as "interesting" for further tests, those which have not been already refuted; all others are discarded. He calls this the "critical method" of arriving by successive approximation at what might turn out to be the 'truth'. Popper does not deny that truth exists, but merely asserts that we never know definitely whether a proposition is true or not, that is, whether or not it will eventually be refuted.

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<sup>78</sup> Karl R. Popper, Objective Knowledge, An Evolutionary Approach (Clarendon Press, Oxford, 1972), p. 9.

Popper is against the opinion of Professor Gilbert Ryle, who, in attempting to refute him, asserts that certain propositions can be dubbed laws. Says Popper:

He asserts against a thesis like mine: 'We are often sure, and warranted in being sure, of a law proposition.' ...And he says that some general propositions are 'established': 'These are called "laws", and not "hypotheses".' 79

Popper turned against this idea of rigid law when he reflected on what Einstein's theory had done in defrocking Newton's laws.

This is also what Friedman is saying. "Any hypothesis is rejected if its predictions are contradicted.... it is accepted if its predictions are not contradicted; great confidence is attached to it if it has survived many opportunities for contradiction. Factual evidence can never "prove" a hypothesis; it can only fail to disprove it." 80

We have dwelled so long on Friedman, because it seems to this writer that the path here outlined is in accord with much of modern scientific thinking. Also these notions will recur again and again in the course of our discussions of economic laws.

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79 id.

80 Friedman, Essays... p. 9.

Hopefully, it has been demonstrated that Friedman has presented economics with a methodology and a philosophy that is intended to produce generalizations very remote from what would be labeled as laws.

Law and Complex Phenomena - Friedrich Von Hayek.

From an unexpected quarter comes another view that serves to introduce doubt about the future importance of law in economics. Friedrich Von Hayek, who in other respects is a strong supporter of economic laws, does not think the term law adequate to describe anything more than the simplest economic relationships, especially as the science progresses from the simpler to the more complex' models. Since social phenomena require a much larger "number of distinct variables" than physical phenomena, they cannot be theorized upon within the frame of reference of a simple scientific methodology.<sup>81</sup>

Hayek reasons that laws, in the traditional sense, can only posit relationships between cause and effect when we are concerned with a small number of variables; but when the latter increase in numbers and interrelationships, the human mind is not capable of catching the causal chains

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<sup>81</sup> Hayek, Studies...; see footnote p. 25 for differing opinions.

from "direct observations." Thus arises a situation which requires a theory of complex phenomena, not correctly described within the framework of traditional science, and that is not well served by formulation of laws. As Hayek states:

Perhaps it deserves to be added that the preceding considerations throw some doubt on the widely held view that the aim of theoretical science is to establish 'laws' - at least if the word 'law' is used as commonly understood. Most people would probably accept some such definition of 'law' as that 'scientific law is the rule by which two phenomena are connected with each other according to the principle of causality, that is to say, as cause and effect.' And no less an authority than Max Planck is reported to have insisted that a true scientific law must be expressible in a single equation.<sup>82</sup>

Hayek goes on to say that it is misleading to infer that a single solution of a system of scientific equations can be considered as a 'relation between cause and effect.' He thus believes that:

It would seem, therefore, that the conception of law in the usual sense has little application to the theory of complex phenomena, and that therefore also the description of scientific theories as 'nomologic' or nomothetic' (or by the German term Gesetzeswissenschaften) is appropriate only to those two-variable or perhaps three-variable problems to which the

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<sup>82</sup> op. cit., pp. 40-41.

theory of simple phenomena can be reduced, but not to the theory of phenomena which appear only above a certain level of complexity.<sup>83</sup>

Even though, Hayek continues, we may have developed detailed theories about certain complex phenomena, we "have to admit that we do not know a single law, in the ordinary sense of the word, which this kind of phenomenon obeys...though we possess theories of social structures, I rather doubt whether we know of any 'laws' which social phenomena obey."<sup>84</sup>

For complex matters we cannot rely on some simple induction between a few variables, but must be prearmed with a theory. "It would probably have saved much confusion if theoretical science had not in this manner come to be identified with the search for laws in the sense of a simple dependence of one magnitude upon another."<sup>85</sup>

Thus Hayek clearly forewarns his colleagues of the need for reassessing both terminology and methodology before it is attempted to deal with complex theories; in

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<sup>83</sup> id.

<sup>84</sup> ibid., p. 42.

<sup>85</sup> id.



fact, he holds that "the prejudice in favour of 'laws' must be harmful." Hayek's opinion will bear much weight in assessing the importance of law in the future, both as a term and as the symbol of a methodology.

### Economics Without Law in Retrospect

We have now reviewed many, if not all, of the economists who have opposed laws in some form or other. In the mildest sense of the term, we have labeled them as anti-law. Opposition to law developed for a variety of reasons. Some economists rejected the Ricardian generalizations because of their unreal assumptions and methodology. Others felt that traditional economics did not offer ample enough play to the wider problems of American capitalism, or that the laws were for the convenience of the vested interests. Still others merely objected to the term itself. And then, finally, we noted a newer philosophy which seeks out a more fruitful mode of analysis, one that aims at practical prediction by means of less tailored generalizations, rather than at explanations of reality by means of more carefully elaborated laws.

We have seen that every science produces generalizations. But whether they are to be called laws depends on the philosophical predispositions and maybe whims of the authors involved. Some of them renounced one classification of law, generally the a priori deductive, for some factual or historical form of law, while still retaining the ideal of law as an epistemological tool.

Others sought out some form of holistic law, governing the entire society. Others abandoned the idea of law altogether in favor of their own generalizations. Some of them felt that law and the precise methodology that it entails were better substituted by a more tentative breed of generalization, one that would be less formalized and more highly substitutable, when newer and more adequate replacements were discovered.

For all their diversity, some common threads run through these various patterns. For one thing, a strong attachment to logical positivism and the positivist restrictions against the a priori was discerned.<sup>86</sup> Inductive fact-gathering in the real world supplanted the a priori deductions. Causality was converted into an observed relationship between simultaneous events from older cause/effect relationships, thus severing the link between economics and much of the old deductive reasoning.

Generally these economists held a very loose definition of the science; they tied their investigations to no binding assumptions like perfect competition or equilibrium.

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For a discussion of Institutionalism and Positivism, see Othmar Spann, The History of Economics, trans. from XIX German edition by Eden and Cedar Paul, (New York, W.W. Norton & Co., Inc., 1930). Original edition, 1912.

Perhaps the only restrictions they demanded were methodological, designed primarily to keep analysis clear of the metaphysical. They offer very little theory; in fact, they were all out for practical results.

Ideologically, many of them (Hobson, Ayres, Galbraith) would like to remake the world; they would not stand pat with some prefabricated batch of eternal doctrine. Leaving aside Friedman and Hayek, who are, in reality and in other contexts, pro-law economists, many of them conform to Haney's idea of idealism and Hayek's of constructive rationalism.

They are thus mentally disposed to seek other forms of regularity than at least the classical form of law. Add to this the reinforcement given by Milton Friedman, who, as perhaps the most clairvoyant methodologist of the past decades, has contributed, together with philosopher Popper, lustre to the anti-law cause. Finally, with the weight of strong lawman Hayek against the traditional meaning and use of laws in handling complex phenomena, the philosophical legitimacy of the pro-law position is somewhat weakened, and we are obliged to reassess the place of laws in solving the more complex problems of the future. We are ready now to begin our review of the laws of economics.

## CHAPTER IV

### WEAK ECONOMIC LAWS

Giving a lecture before the convention of scientists at Geneva, Pareto was interrupted from the floor by a patronizing cry from Gustav Schmoller, an economist of the then German Strassburg: "But are there laws in economics?" Schmoller had no personal acquaintance with Pareto at the time. After the lecture Pareto recognized his heckler on the street and sidled up to him in his shabby clothes. [Pareto was famous for his indifference to the exteriors that go with wealth and fame.] And in guise of a beggar: "Please, sir, can you direct me to a restaurant where one can eat for nothing?" "Not where you can eat for nothing, my good man," the German replied, "but here is one where you can eat for very little!" "So there are laws in economics!" laughed Pareto as he turned away.

Arthur Livingston,  
"Biographical Note" in  
The Mind and Society.<sup>1</sup>

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<sup>1</sup> Vilfredo Pareto, The Mind and Society, Arthur Livingston (Ed.), trans. Andrew Bongiorno and Arthur Livingston, (Harcourt Brace Jovanovich, Inc., New York, 1935), Vol. I, p. xviii; cited by Tarascio, op. cit., p. 116. Original edition: Trattato di Sociologia Generale, (G. Barbera, Florence, c. 1915.)

We have now arrived at a point where we can acquaint ourselves with those economists and schools of economics that make use of economic law as a working tool in their analyses of reality. In this chapter several classifications of law will be reviewed, all of which have the common trait that they represent a regularity far less pre-tentious than that of the famed classical laws and do not depend on a rigorous a priori methodology.

We will first review the empirical laws in general. These laws are based on simple inductive methods of information gathering. Their authors will quite often be positivist in philosophy, refusing to reason on the basis of some remote abstraction, but rather constructing their generalizations on factual data readily available to any able observer. To a greater or lesser degree they adhere to the theory and operational precepts of the positivist doctrine. Thus the principal characteristic of these laws is their disregard for pure theory and their reliance, instead, on actual observations in the framing of hypotheses. F. Kaufmann and T. W. Hutchison are the theorists of the empiricists; they have best explained the significance of these laws and attempted to vindicate

the logic they presume to follow.

After reviewing the empirical laws, in general, we will then take up the econometricians. These economists either apply the theory of mathematical economics to problems using real world data, or launch out to develop new strains of regularities from such data directly. We will pause, howsoever slightly, to glance at the principal assumptions of econometric probability and at some of its implications with reference to economic law. This is perhaps the most popular field of research for economic laws.

From the quantitative we will then pass directly to the historical laws. Often these latter will not be distinguishable from the general empirical laws, because some economists have constructed laws directly from historical data, without reliance upon preexisting theory. Of course, epistemologists like Mises and Popper have objected to theoryless history, while Carl Hempel offers his covering law thesis to show how fact and law are to be combined in historical explanation. While many of the historical laws are thus positivist in origin and format, there are also others, more romantic in style, which are offshoots of the metaphysics of Hegel, though usually in a pruned-down version.

We will then comment upon the Spartan use of law by the macroeconomists, including Keynes and his successors. Notwithstanding the greater importance given to theory, and the lesser influence of positivism in macroeconomics, the concept of law has not flourished in this department of the science.

It will then be interesting to observe how social scientists, other than economists, are grappling with the same and similar methodological problems in anthropology, sociology, politics, psychology, and other disciplines which relate to various aspects of human behaviour.

The many classifications of law included here have been labeled as weak. In the first place, this will distinguish them from the classical and Austrian laws, which are derived from theoretical postulates, and the Marxian laws, which are imbedded in the whole fabric of historical materialism. Then, no one has attempted to claim that these laws should be classified as immutable or universal; on the contrary, the propositions here envisioned are more of a down-to-earth set of verifiable and generally quantifiable regularities. We will attempt



to show that the assumptions adopted by these economists (as, their concept of economics, their positivism, their idealism, etc.) will favor this softer version of generalization.

It would be well to caution the reader at this point that, since our classification has not been one primarily based on method, but on the broader spectrum of assumptions made by the various authors, it is possible for the same economist to appear under more than one classification. Some mathematicians, for example, support stronger versions of deductive law when deriving their theorems, but then revert to empirical procedures in applying them. Schultz and Douglas exemplify this case. A law of individual demand, for example, derived a priori from indifference curve theory is not the same law as the law of market demand drawn from statistical data. Another example is John Stuart Mill's diverse treatment of theoretical and historical laws.

## Empirical Laws

One view of what law means to economists is found in the writings of T. W. Hutchison.<sup>2</sup> Belonging to the group called "ultra-empiricists" by Machlup,<sup>3</sup> he limits the concept law to statements concerned with concrete external experience. Laws are propositions that must deal with verifiable factual matters and must not depend on the inane generalizations of pure theory. He says:<sup>4</sup>

We suggest that the term 'law' should be reserved only for those empirical generalizations such as Pareto's or Gresham's law or the law of diminishing marginal utility. It is such laws as these that it is the central object of science to discover. This is something more than the mere suggestion of a terminological change. It implies a fundamental alteration in the quaesita and methods of Economics. As has been well said: "The formulation of empirical laws is not just a special problem of the exact natural sciences but the central problem in the construction of all scientific theories, since empirical laws are the foundation for all scientific explanation."<sup>5</sup>

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<sup>2</sup> The Significance...; this section is essentially a summary of Hutchison's views as therein expressed.

<sup>3</sup> "The Problems of Verification...", p. 7.

<sup>4</sup> op. cit., pp. 64-65.

<sup>5</sup> C. G. Hempel and P. Oppenheim, Der Typusbegriff im Lichte der neuen Logik, p. 102; cited by Hutchison, pp. 64-65.

Thus it is evident that empirical laws occupy an essential place in the composite of Hutchison's economic doctrine. This emphasis on the empirical, in turn, depends upon a special concept of the nature of science and an appropriate methodology as well. Hutchison makes a fundamental distinction between science and pseudo science. True science is concerned with "regularities in the facts of the world."<sup>6</sup> Pseudo science, on the contrary, is completely detached from reality; it concerns itself with some general propositions which are deduced introspectively, and which cannot be verified in the external world. This is pure philosophy, the antithesis of science. It is an exercise in poetry, or in sterile metaphysics, or in "understanding", as the term was visualized by the German social scientists,<sup>7</sup> but it is not science.

Classical economics has engaged in pseudo science. Many of its formulations are circumlocutions, that depend on arbitrary definitions and are merely linguistic expressions quite apart from the facts. Many are tautologies, which are exercises in pure logic, and for that reason

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<sup>6</sup> op. cit., p. 55. ✓

<sup>7</sup> ibid., p. 15, cf. infra, p. 200, pp. 312-316.

are unconditionally necessary and certain statements. Others are merely statements of logic, falling under Wittgenstein's dictum that "theories which make a proposition of logic appear substantial are always false."<sup>8</sup>

Hutchison refuses to consider as scientific any propositions that are analytic in the Kantian sense. Such propositions of pure theory he holds to be independent of all facts of the external world, devoid of all empirical content, akin to "unscientific mysticism."<sup>9</sup> Incorporating no relation with experience, they can have neither explanatory nor prognostic value.<sup>10</sup>

On the contrary, economics is to concern itself with "statistical investigations, questionnaires to consumers and entrepreneurs, the examination of family budgets and the like."<sup>11</sup> It deals with things like rising

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<sup>8</sup> ibid., p. 39; Hutchison cites L. Wittgenstein, Tractatus Logico-Philosophicus, p. 155; J. Jorgensen, Principles of Logic, Vol. III, pp. 116-7; and L. Roughier, La Structure des theories deductives, passim.

<sup>9</sup> ibid., p. 33.

<sup>10</sup> ibid., p. 132.

<sup>11</sup> ibid., p. 120.

and falling prices, employment policy at different stages of the trade cycle, behaviour of savers and investors, etc.<sup>12</sup> Interestingly, he also emphasizes that "an economic problem is a problem as to how people behave."<sup>13</sup>

What then are the qualities of an economic law in the empiricist view? All propositions must be capable of empirical testing, or at least reducible to such propositions by logical or mathematical deduction.<sup>14</sup> Being empirical and verifiable implies that they are also always "falsifiable", as it is always possible for science to err. Unlike the a priori type of proposition, they are "far from universal;"<sup>15</sup> for, as it has been said, not all finance ministers will behave alike. No valid distinction can be made between normative and positive propositions, as Schlick has held.<sup>16</sup> No proposition can be formed without taking the realities of politics into account. And

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<sup>12</sup> ibid., p. 170.

<sup>13</sup> ibid., p. 164.

<sup>14</sup> ibid., p. 9.

<sup>15</sup> ibid., p. 163.

<sup>16</sup> ibid., pp. 153-155.

finally, all ideas about exact truth, certainty, and the like must be abandoned, because all such notions are misconceived.<sup>17</sup>

As to whether laws should be quantitative rather than qualitative, Hutchison simply notes that, in forecasting, a quantitative prognosis is "more accurate" than a qualitative one.<sup>18</sup> Of course, all empirical propositions apply only to the objects under consideration, never to every individual or to an average individual.

We are thus presented with propositions that are in no sense universal, necessary, or unchanging, and thus could not be considered as strong laws. On the contrary, Hutchison's laws, being empirical, are always subject to modification and updating and thus fall into the weak category. As we have noted, proponents of weak laws often emphasize the importance of verifiability and quantifiability in describing their propositions.

Again, Hutchison insists, with Mach, that "a Law consists always in a limitation of what is possible."<sup>19</sup>

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<sup>17</sup> ibid., p. 164.

<sup>18</sup> ibid., pp. 68-9.

<sup>19</sup> op. cit., p. 61, citing E. Mach, Erkenntnis und Irrtum, 3,A, p. 440.

A law of demand, for example, will exclude the sale of certain quantities at prices above certain amounts. There must always be a definite set of circumstances excluded by the action of the law. He feels that the classical laws exclude merely the "inconceivable" or "contradictory." Empirical laws, on the contrary, clearly state the boundary between the excluded and the accepted.

What scientific method must be adopted to derive such propositions? As a follower of Schlick, Hutchison must take all purely a priori deductions as being tautological and circular.<sup>20</sup> Deduction is merely a manipulation of linguistic expressions, though it can have the advantage of being a thought-clearing exercise and a means of eliminating verbal trivia. Thus all the classical deductive systems from Ricardo onwards are to be rejected.

What is needed is the investigation of real facts and the formulation of inductive a posteriori propositions. These can then be combined with whatever logical and mathematical statements are needed to form a complete analysis. In all cases, facts and language must be inter-related in order to reach empirically verifiable conclusions.

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<sup>20</sup> ibid., p. 36.

Excluded are all the traditional hypothetical conceptions like that of the "stationary state", as well as all metaphysical assumptions.

The procedure is not rigidly formalized according to any strict rules of logic. Hutchison describes the most fruitful method as follows:

Sciences never begin with problems which come logically first - if they did they would probably make very slow progress -- but they start at a "commonsense" level and have to build upwards their structure of laws and relations, and downwards their foundations -- the latter task being by criticism and analysis to test and make precise the commonsense notions they start with, and to assure a logically firm and secure basis for the superstructure."<sup>21</sup>

What is the purpose of economic laws?

Hutchison does not stress the explanatory function of law; perhaps the very scientific process that he emphasizes is meant to serve as explanation. But he does stress the forecasting role:

"Just as one might say that the whole aim of science is the formulation of empirical laws, so it is only putting the same thing in another way to say that the aim of science is the formulation of prognoses."<sup>22</sup>

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<sup>21</sup> ibid., p. 16.

<sup>22</sup> ibid., p. 65.



He goes on to quote Frank Knight: "The aim of science is to predict the future for the purpose of making our conduct intelligent."<sup>23</sup>

At this point it is possible to construct a typical definition of the empiricist view of economic law, which reflects as much as possible the precise meaning of these economists:

Economic laws are empirical generalizations derived principally by scientific induction about any external economic relationship which occurs in a regular pattern. This generalization is valid only for the group studied and for a particular time and place.

Evidently, this definition follows closely the presumed pattern used in the natural sciences.<sup>24</sup> Also it postulates no difference between the laws of the natural and the social sciences, except that the latter, dealing with the inconstancies of men, will exhibit less regularity. Nor will economic laws be limited in their coverage; as the outer bounds of economics will be left to practical rather than theoretical considerations.

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<sup>23</sup>ibid., see also F. H. Knight, "The Limitations of Scientific Method in Economics," The Trend of Economics, Rexford G. Tugwell (Ed.), p. 232-3.

<sup>24</sup>cf. supra., p. 66

In the empiricist view, propositions have nothing to do with traditional cause and effect relationships. Perhaps the term functional dependence would be preferred to describe what is visualized as a Humean concomitance.<sup>25</sup> As Hutchison indicates: "We certainly do not volunteer here to give any other meaning to concepts like 'the causes of a trade depression' than, simply, 'certain events immediately preceding or accompanying a trade depression.'"<sup>26</sup>

Hutchison's concept of law follows from his essentially undefined notion of economics and his rigid stand on assumptions. He finds no basis for any "useful" definition of economics; in fact, for him all definitions are themselves tautological.<sup>27</sup> He offers no "economic" assumptions; the proof of the pudding consists in the "appeal to facts."<sup>28</sup> He criticizes at length the "fundamental principle" as an assumption, as follows:<sup>29</sup>

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<sup>25</sup> ibid., p. 71.

<sup>26</sup> ibid., p. 72.

<sup>27</sup> ibid., pp. 53-57.

<sup>28</sup> ibid., p. 11.

<sup>29</sup> ibid., p. 118.

...the method of deduction from some "Fundamental Assumption" or "principle" of economic conduct is more or less useless, because no relevant "Fundamental Assumption" can, on our present knowledge, be made."

Nor does the idea of economic postulates fare any better:

The whole conception of Economics, as held for example by Senior, as a science resting on a very few general propositions...is shown to be entirely inadequate.<sup>30</sup>

Thus in Hutchison's mind economics is to be uncluttered by any preconceived notion or philosophical predisposition. All one must do is, as a chessplayer, to agree to the rules of the game. The only limitations on coverage of material are methodological. There is no prerequisite for competition, no ceteris paribus requirement, no other controlling assumption. All content is acceptable, provided it can be subjected to the rigid methodological discipline of being empirically verifiable and falsifiable.

It is in this, however, that Hutchison reveals that, far from offering an economics free of restraints, he demands that his rules of "objective experience" be

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<sup>30</sup> id., cf. infra, pp. 241-9; 335-7; supra, p. 78.

rigorously enforced. And what are these rules? A quick check will show that his mentors are Moritz Schlick, Rudolf Carnap, and Herbert Feigl, founders and propagators of logical positivism. We have seen that Hutchison, certainly more than Friedman and perhaps more than any other practicing economist, holds to the major tenets of positivism.<sup>31</sup> Whereas Friedman admits hypothetical arguments, Hutchison is a much more orthodox positivist.

No wonder then that he holds, quoting Russell, that "Propositions which form part of logic, or which can be proved by logic, are all tautologies...."<sup>32</sup>

This explains his rejection of all assumptions: "What if one does not, and need not, regard any assumptions in economics as 'fundamental' in any special epistemological sense?"<sup>33</sup> Or his insistence that the study of nature and the study of man are in principle logically identical.<sup>34</sup> Or that much of modern economics is pseudo-science.

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<sup>31</sup> cf. supra, p. 125.

<sup>32</sup> ibid., p. 30, quoting B. Russell, Analysis of Matter, p. 171.

<sup>33</sup> ibid., p. xviii.

<sup>34</sup> ibid., p. xii.

It is false, therefore, to conclude that Hutchison's model is free of assumptions. On the contrary, it is uniquely restrained by the theory and operational directives of neo-positivism. It is thus obvious that laws under such a regime will be solidly empirical.

It is left to others to determine Hutchison's following among economists. While few other economists are as explicitly positivist as he, it cannot be doubted that the modern trend in social science is along the positivist path. We will note this, not only in the positivist historians, but especially among the econometricians. For this reason, we have emphasized Hutchison's philosophical model and begun our discussion of weak laws with him.

### Quantitative Laws

It is proposed to begin our review of the quantitatively oriented economists with Henry Schultz. A disciple of pioneer Henry L. Moore, and mentor of many Chicago economists of later fame,<sup>35</sup> Schultz occupies a strategic position

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<sup>35</sup>for example, Milton Friedman and Jacob Mosak.

from whence to study the meaning of the quantitative laws. His treatise, The Theory and Measurement of Demand, in his words, "attempts to unify the theoretical-quantitative, the empirical quantitative, and the historical approaches to the study of demand" on a large scale.<sup>36</sup> This immediately augurs for a manifold approach to the meaning of law.

Law refers to a "real" regularity, according to which people engage in economic activities, and which it is the function of pure theory to specify and of applied theory to approximate. The law of demand originates in the modern theory of utility and of indifference curves, whence the "theoretical law of demand" is deduced, which in no uncertain terms forms the basis of all his further practical work.

A theoretical law is clearly a hypothetical deduction. It can be stated in expressions, formulas, equations, or identities.<sup>37</sup> It appears in the form of functions, like the demand function, which are "worked out mathematically."

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<sup>36</sup> op. cit., p. viii.

<sup>37</sup> ibid., p. 123.

While the theoretical law can be stated verbally, it is important not to get bogged down in "metaphysical" concepts, which "have no place in scientific economics," but rather to define all concepts operationally, so that they will be congenial to mathematical expression.<sup>38</sup>

Schultz found most previous verbal statements of the law of demand defective: from the Marshall-Cournot law, which requires much assumption and ceteris paribus, to many of the "vague and sterile" textbook statements.<sup>39</sup> He preferred a concrete, mathematical formulation, as the equation:

$$x = f (y_1, y_2, \dots, y_n, R, t)$$

which he said, "is the general dynamic law of demand and is theoretically to be preferred to all the others."<sup>40</sup> Or theoretical laws can be stated in the form of differential

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<sup>38</sup> ibid., p. 12.

<sup>39</sup> ibid., pp. 6-7.

<sup>40</sup> ibid., p. 138, where  $x$  is the quantity demanded of a good,  $y_1, y_2, \dots, y_n$  are the prices of  $x$  and all other relevant goods,  $R$  is income, and  $t$  time ("a catch-all for those factors which change slowly and smoothly with time"; cf. p. 10.)

equations, as the following, which is the "keystone of Marshall's theory of demand":<sup>41</sup>

$$\frac{\partial y}{\partial P_y} = \frac{m}{\phi_{yy}}$$

Schultz put great faith in the validity of the theoretical laws. He stated:

The equations summarizing the interrelations in question constitute a category of laws which is comparatively rare in the social sciences. They specify quantitatively definite relations which must exist between the variables - if the theory is true. They thus enable us to test the extent of the agreement between theory and fact.<sup>42</sup>

The essentially mathematical character of law is illustrated by the law of diminishing marginal utility, which is "defined by the negative sign of the pure partial second derivatives..."<sup>43</sup>

Schultz then turns to the applied version of law or to the statistical of econometric law, which is an appli-

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<sup>41</sup> ibid., pp. 48-49, where  $\frac{\partial y}{\partial P_y}$  is the partial derivative

showing the increase in the quantity of y demanded per an infinitesimal increase in the price of y only; m is the marginal degree of utility of money; and  $\phi_{yy}$  is the second derivative of the utility function with respect to y. See pp. 20, 34.

<sup>42</sup> ibid., p. 646; quoting Oskar Lange, "The Determinateness of the Utility Function," Review of Economic Studies (1934), Vol. I, No. 3, p. 219.

<sup>43</sup> ibid., p. 649.



cation of theory to actual historical data. The statistical relationship is meant to be a faithful, however imperfect, reflection of elaborated theory.

Wrote Schultz:

An excellent illustration is afforded by Moore's derivation of the law of demand for cotton in the U. S. for the period 1890-1913. It is:

$$Y_1 = 7.11 - 0.97 X_1 + 1.60 P_2$$

where

$Y_1$  is the percentage change in the price of cotton,

$X_1$  is the percentage change in the amount produced,

$P_2$  is the percentage change in the index of general prices.<sup>44</sup>

Moore in 1914 deduced for the first time the laws of demand for corn, hay, oats, and potatoes.<sup>45</sup>

The econometric laws offer us a series of difficulties, which are presented here in summary, based on observations from Schultz. In the first place, the transition from theoretical to applied law in economics is "still largely a matter of guesswork."<sup>46</sup> One finds himself dealing with

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<sup>44</sup> Henry L. Moore, Forecasting the Yield and the Price of Cotton, (Macmillan Publishing Company, Inc., New York, 1917.) Reprint: (Augustus M. Kelley, New York, 1967).

<sup>45</sup> Schultz, op. cit., p. 69.

<sup>46</sup> Cohen, op. cit., p. 358.

an empirical extrapolation; however, "no matter how well an economic law may fit the facts of a particular situation, it cannot be safely extrapolated to a new situation,"<sup>47</sup> especially since the laws can shift in time.<sup>48</sup> There are no counterparts in economic law to the constancy of momentum in the physical laws.<sup>49</sup>

Since the parameters are forever shifting, one can at most settle on some average value, trusting that the "representative point" selected for the analysis lies at least near the true mean of the distribution. If, indeed, one were to know the "true" parameters, the statistical equations would be identities.<sup>50</sup> Generally, it is as though one only had the initial terms of a Taylor expansion on which to build his knowledge.<sup>51</sup> The residual then forms the error term.

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47 Schultz, op. cit., p. 134.

48 ibid., p. 55.

49 ibid., pp. 57-58.

50 ibid., p. 628.

51 id.

The functional form of the equation (whether linear, logarithmic or other) is largely decided by trial and error. If a single variable is selected, the model "does not correspond to reality. It is simply a hypothetical case."<sup>52</sup> When a large number of variables is included, one is faced with increasing unreliability of the data.<sup>53</sup> In fact the inductive method itself is "essentially a leap in the dark."<sup>54</sup>

The results of such analysis can give only probable answers, as, for example, the probable price of cotton, given the probable production yield of cotton.<sup>55</sup> One is thus deeply involved in the calculus of probability. Instead of defined causal sequences, one faces random or stochastic movements. Results are verified in measures of correlation (events have occurred together) instead of causation (one event has been caused by another.) Accuracy depends on the reliability of the standard error, which envelops the real mean value of the parameters calculated.<sup>56</sup>

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<sup>52</sup> ibid., p. 50.

<sup>53</sup> ibid., p. 137.

<sup>54</sup> ibid., p. 135.

<sup>55</sup> ibid., p. 69.

<sup>56</sup> ibid., pp. 212-215.

We thus conclude a brief recapitulation of problems met in designing econometric models.

Schultz was not the only mathematical economist to distinguish between theoretical and applied laws. Before him, Jevons had described exact laws, "the laws of generality," and empirical laws, which were "little more than compendious statements of numerical results."<sup>57</sup> Again, he described these laws as either abstract or concrete.<sup>58</sup> Also, he used time as the basis of the distinction.

Any group of objects may be studied either as regards the laws of action of their component parts, irrespective of time, or as regards the successive forms produced from time to time under the action of those laws.<sup>59</sup>

Thus, in sum, theoretical laws were general, timeless, and abstract; whereas empirical laws were detailed, concrete, and involving time successions.

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<sup>57</sup> William Stanley Jevons, The Principles of Economics, A Fragment of a Treatise on the Industrial Mechanism of Society and Other Papers (Macmillan and Company, Ltd., London, 1905), p. 146.

<sup>58</sup> ibid., p. 198.

<sup>59</sup> ibid., p. 196.

Lange follows Jevons in distinguishing between the general schematic laws of theory and the concrete econometric laws.<sup>60</sup>

Ezekiel, quoting Henry Moore, finds the basic distinction between the two classifications of law in the static-dynamic dichotomy: "Professor Moore," he notes, "holds that the statistical 'law of demand' at which he arrives is a dynamic law, while that of theory is a static law."<sup>61</sup>

The essential difference between the theoretical and the applied formulations can be stated in this way: the former tell us something about how men, under certain "normal" conditions, will always act; whereas the latter merely project some of past history into the future, under the assumption that there will be no change in the exogenous world. The difference does not consist only in the fact that some formulations generalize, while others adapt the generalizations to particular situations; in fact, not

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<sup>60</sup>Oskar Lange, Introduction to Econometrics, 2nd ed., trans. Eugene Lepa (Pergamon Press, Inc., New York, 1962), p. 15. Original edition: Wstep Do Ekonometrii (Warsaw, 1958).

<sup>61</sup>Mordecai Ezekiel, "What do Statistical 'Demand Curves' Show?" Quarterly Journal of Economics (1927), Vol. XLI, p. 214.

all econometricians construct their models based on formal theory. The Phillips curve models are, perhaps, an example of applied statistics, not based on traditional economic doctrine.

Following our model, we will attribute the source of the differences between the two classifications of law primarily to the assumptions and postulates that the authors of each have adopted. We will thus be able to conclude that the mathematical economists will offer, by and large, a stronger version of law than their econometricist brethren. In general, they will be less positivistic, more addicted to critical rationalism, more attuned to intuitive postulates and to a priori reasoning. Their laws will, therefore, describe more of the normal, or ideal, world than the world of ephemeral actuality, based as they are more on principles than on empirical data. As noted earlier,<sup>62</sup> the mathematical laws will to a large degree parallel those of the neo-classical economists.<sup>63</sup> They will lay claim to the qualities of

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<sup>62</sup> supra, pp. 53-4.

<sup>63</sup> For an interesting analysis of the differences between the mathematical and the "method of isolation" economists, and for a different conclusion, see Briefs, op. cit., pp. 23-29.

being universal, causal, and certain.

The econometricians, on the contrary, will tend more toward positivist philosophy and methods; and their laws will depict projections based on factual historic data. Because of inherent difficulties in the data processing methods of this group, which we have already alluded to, their laws will be decidedly less stringent than those of the mathematicians.

As has been seen in the case of Schultz, certain economists have distinguished themselves both as mathematicians and as econometrists. Jevons, Lange, and Hicks are a few prominent examples. An attempt will be made to distinguish between the two lines of thinking in each, much as we have done with Schultz, and earlier with Friedman. For the moment we relegate the strictly mathematical economists and their modus operandi to the subsequent chapters on the normal and strong laws. In the meantime, we will concentrate our attention on the econometrists, following such authorities, as Haavelmo, Lange, Tintner, Zeuthen. Our objective will be to demonstrate how the package of assumptions and method espoused by this group lead to a weak variety of law. We will follow

the scheme outlined in Chapter II.<sup>64</sup>

Econometric Assumptions. Though most of our econometricians do not stress their philosophical leanings, it is clear that positivistic and logical empiricist principles guide much of the work they do. Zeuthen, for example, indicates such premises when he affirms that economic assumptions or postulates are approximative generalizations of empirical observations.<sup>65</sup> Likewise Lange.<sup>66</sup> See also Wold and Tintner for indications of positivism.<sup>67</sup>

This positivism carries over to the methodology adopted, as Tintner has again observed:

There are no other methods or aims in the social and cultural sciences than exist in the natural sciences: observation, description, measurement, statistics, the discovery of explanatory laws and theories -

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<sup>64</sup> supra, p. 80.

<sup>65</sup> Frederick Zeuthen, Economic Theory and Method (Harvard University Press, Cambridge, 1955), p. 12.

<sup>66</sup> Oskar Lange, "The Scope.....," pp. 20-21.

<sup>67</sup> H. Wold, "Causality and Econometrics," Econometrica (April, 1954), Vol. 22, No. 2, pp. 162-177; Gerhard Tintner, Methodology of Mathematical Economics and Econometrics (The University of Chicago Press, Chicago, 1968), pp. 91-92.



more difficult of achievement in the former than in the latter - are the basic procedures. The role of sympathetic "understanding" or "empathy" as a practical guide is certainly not to be minimized, but its results, if they are to be scientifically valid, are subject to the very same objective tests as are the results of inorganic science.... To what extent sociology, economics or history are capable of discovering reliable laws on some level of concept formation is an empirical question and therefore cannot be decided a priori on logical grounds.<sup>68</sup>

Absent are all metaphysical and natural law implications.

It should not be surprising then to see this positivism reflected in a strong bent towards the empirical, measurable, factual kind of law, in contrast with the a priori, intuitive, deductive variety.

What assumptions do these economists make about the nature of the science? It can be said that generally all those economists who formulate either weak or normal laws will be among those who hold that economic science is confined to that branch of human endeavors which is concerned with material goods and services. It deals with

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<sup>68</sup> Tintner, op. cit., pp. 10-11, quoting Feigl H. and W. Sellars, (Eds.), Readings in Philosophical Analysis (Appleton-Century-Crafts, New York, 1949), p. 22.

the material "department' of human activities."<sup>69</sup> Zeuthen, for example, holds that "Economic science deals with the interdependence between consumption and production."<sup>70</sup> Lange defines economics as "the study of the ways in which scarce resources are administered."<sup>71</sup> Or again, economics is "the study of social laws governing the production and distribution of the material means of satisfying human needs."<sup>72</sup> In every case we are measuring, administering, or organizing material things, at the same time disregarding the cultural and spiritual factors that influence many of the decisions of mankind. This special characteristic of these laws will tend to limit their universality.

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<sup>69</sup> cf. L. M. Fraser, Economic Thought and Language, A Critique of Some Fundamental Economic Concepts (Adam and Charles Black, Ltd., 1937), p.29 .

<sup>70</sup> op. cit., p. 22.

<sup>71</sup> "The Scope....," p. 19.

<sup>72</sup> Oscar Lange, Political Economy, Vol. I, (Macmillan Publishing Company, Inc., New York, 1963.) Original edition: Ekonomia Polityczna (Panstwowe Wydawnictwo Naukowe, Warsaw, 1959.)

Although the econometricians generally do not emphasize substantive assumptions in their models, as perfect competition, they do accept, lock, stock, and barrel, the tenets of modern probability theory. The latter, in addition to providing a method of analysis, also requires certain assumptions as to the occurrence of real events, the nature of statistical populations, their respective distributions, and their independence; to assent to the entire system is almost to adopt a metaphysical credo. And the validity of the results attained by econometric analysis depends on the validity of these concepts.

It will not be possible here to analyze the implications of the many assumptions as to error terms, distributions, lags, independence, collinearity, identification, each of which terms reflects much developed doctrine and has been the source of grave difficulties in econometric models. We limit our discussion to the basic conceptualization of the econometrician.

For the principal econometric assumption, we turn to a pathbreaking piece by Haavelmo.<sup>73</sup> He expresses this fundamental insight as follows:

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<sup>73</sup> op. cit.

The  $nN$  values  $(x_{1t}, x_{2t}, \dots, x_{nt})$ ,  $t = t_1, t_2, \dots, t_n$ , in the system of  $N$  value-sets, may be considered as a sample point  $E$  in the  $N$ -dimensional sample space of  $nN$  random variables  $(x_{1t}, x_{2t}, \dots, x_{nt})$ ,  $t = t_1, t_2, \dots, t_n$ , with a certain joint integral probability law  $P(w)$ . ( $w$  denotes an arbitrary point-set in the  $n$ - $N$  dimensional sample space.)<sup>74</sup>

This statement has as much importance for the econometrician as any other in the literature. In a condensed vision of reality, it posits an economic problem in which there are a series of " $n$ " economic variables, each with its own value in each of " $N$ " time periods. (Thus there are " $n$  times  $N$ " values all told.) Each time point has its own value set of " $n$ " variables, each element with its own value. And the set of  $N$  value sets (for the  $N$  periods of time) is a sample point ( $E$ ), one of a very large number of such sets, subject to a probability distribution. Any one of these sets ( $W$ ) is subject to said probability law.

This assumption offers a unique view with metaphysical overtones, of the nature of reality, including the proposition that the variables discussed are indeed subject to some overweening probability distribution.

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<sup>74</sup> ibid., p. 69.

This further implies much as to the nature of such distributions, the details of which we will not be able to enter into. Furthermore, Goldberger also notes that there are ~~two~~ diverse interpretations of this kind of model, neither of which is unique or generally accepted.<sup>75</sup> It is clear that the acceptance of such models requires certain large-scale assumptions.

Another assumption, made by Haavelmo, is that it is possible to transfer from information about individuals to information about the general population. Haavelmo expresses it thus:

It seems rational to introduce the assumptions about the stochastic elements of our economic theories already in the 'laws' of behavior for the single individuals, firms, etc., as a characteristic of their behavior, and then derive the average of market relations for the whole society, from these individual 'laws.'<sup>76</sup>

Such "additive" features as, for example, the formation of an industry demand curve by summing the curves of individual firms, is a common technique in economics. However, it is obviously an assumption that cannot be affirmed with carefree certitude.

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<sup>75</sup> Arthur S. Goldberger, Econometric Theory (John Wiley & Sons, Inc., New York, 1964), p. 161.

<sup>76</sup> op. cit., pp. 51-52.

Finally, practitioners do assume that certain parameters do in fact represent reality, and are not partially or totally imaginary. One thinks of such parameters as an export multiplier, coefficient values of certain dummy variables, etc.

It is now clear that econometric theory is not at all assumptionless. However, the two primary assumptions are those implied by the logic of positivism and the theory of probability; upon these the nature of the econometric laws and their qualities will depend.

The Meaning of Econometric Law. What concept of law is held by the econometricists? We will find that it is a reflection of regularities occurring in the marketplace, however, devoid of anything which smacks of natural law, normality, or necessity in human affairs. In general, these authors do not dedicate much space to questions of epistemology; however, we list some scattered comments on what law means.

According to Lange, for example, "statements enunciating the patterns of uniformity are referred to as 'economic laws!'"<sup>77</sup> Of course, such "economic laws are, like

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<sup>77</sup> "The Scope....," p. 20.

all other scientific laws, conditional statements."<sup>78</sup>

Or again, Lange views economic law as a dynamic relationship, as "laws of the process of reproduction." He cites as an example the relation between the rates at which the means of production and the means of consumption increase.<sup>79</sup> The ideal law would thus be an expression of the relative changes between variables, which is generally called elasticity.

Notwithstanding the impact of positivism, these uniform relationships, however, are sometimes conceived to be a degree removed from positivist reality. Zeuthen, who as a logical empiricist believes that laws are derived by "induction from a series of individual cases to a general law,"<sup>80</sup> considers laws as simplifications. They are hypotheses because they can be "falsified by new observations."<sup>81</sup> He called, for example, the law of proportionality "not a law about real life, but a hypothesis,

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<sup>78</sup> id.; cf. supra, pp. 29-31.

<sup>79</sup> Introduction..., p. 13, p. 8.

<sup>80</sup> Frederick Zeuthen, Economic Theory and Method (Harvard University Press, Cambridge, 1955), p. 8.

<sup>81</sup> id.

a simplification."<sup>82</sup> He adds that it "raises only a question to which an empirical answer may be found in every single case."<sup>83</sup>

We note that these laws are not concerned with the essence of things; there is nothing metaphysical or intuitive; there are no inherent tendencies towards normality or equilibrium. Rather they are merely simplified observations on reality, as they are received from empirical observations. They will be subject to modification as the supporting evidence changes. They describe "weak" regularities. Ezekiel describes them as follows:

In concluding this discussion of the relation of supplies to price, of price to consumption, and of price to subsequent production, it should be noted that the results obtained by statistical determination of the relations are no fundamental "laws of nature" in the same sense as is the law of gravity. They are measures of the way that particular groups of men, in the aggregate, have reacted to specific economic conditions during a specified period in the past. If the study is elaborate enough, it may even reveal the way in which the reaction has been changing during the period considered, and the direction and the rate of change. But it does not tell how long the same reaction will continue to prevail, what

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<sup>82</sup> ibid., p. 114.

<sup>83</sup> id.



new causes may arise to change the responses, or what the relations would be in the new situation. The theories of mathematical probability do not apply. All that can be said is that under these particular conditions this group of men has been reacting in this specific way; and that until something occurs to make them change it seems most likely that they will continue to react in the same way.<sup>84</sup>

It might be interesting to compare Ezekiel's pragmatic notion of economic law with mathematician Frege's essentially metaphysical definition of mathematical law:

The laws of number, therefore, are not really applicable to external things; they are not laws of nature. They are, however, applicable to judgments holding good of things in the external world: they are laws of the laws of nature. They assert not connections between phenomena, but between judgments; and among judgments are included the laws of nature.<sup>85</sup>

Qualities of the Econometric Laws. We must next analyze the qualities of the econometric laws. In the first place, can they be considered as universal laws? The testimony is overwhelmingly in the negative. Jevons, in speaking of theoretical laws, declared that they can

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<sup>84</sup> Statistics . . ., pp.223-4.

<sup>85</sup> G. Frege, The Foundations of Arithmetic, 2nd rev. ed., (Basil Blackwell, Oxford, 1953), p. 99e. Original edition: Die Grundlagen der Arithmetik eine Logisch Mathematische Untersuchung über den Begriff der Zahl (Verlag Von Wilhelm Koenbner, Breslau, 1884.)

be studied "irrespective of time"<sup>86</sup> and are "so simple in nature, and so deeply grounded in the constitution of man and the outer world, that they remain the same throughout all those ages which are within our consideration."<sup>87</sup> But, on the contrary, when speaking of the empirical law of demand, he held it "subject to exceptions and qualifications." <sup>88</sup>

Pareto was even more forceful when he remarked:

There are still professors of political economy who keep repeating parrot-like that economic laws have exceptions, while physical laws do not. Such "the ignorance that tormenteth them!" Not even with a spyglass could one find a physicist to class among unexceptional physical laws the law that bodies diminish in volume as they cool.<sup>89</sup>

Lange held that "most economic laws are thus 'limited historically' to certain given types of social organization and institutions."<sup>90</sup> Hicks, however, felt that the chance of exceptions is negligible.<sup>91</sup>

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<sup>86</sup> The Principles..., p. 196.

<sup>87</sup> ibid., p. 198.

<sup>88</sup> ibid., p. 58.

<sup>89</sup> The Mind..., p. 53fn.

<sup>90</sup> "The Scope....," p. 20.

<sup>91</sup> Revision of Demand Theory, (The Clarendon Press, Oxford, 1956), p. 67.

The next problem before us is to determine whether and in what sense the econometric economic laws can be called causal. Herman Wold tells us "the concept of causality is indispensable and fundamental to all science."<sup>92</sup> He then goes on to describe a typical regression analysis as an example of a causal relationship, provided it can be regarded as a "fictive controlled experiment."<sup>93</sup> The regression is then "interpreted as the average causal relationship."<sup>94</sup>

However, as a logical empiricist, Wold does not signify here anything more than the Humean brand of causality. He rejects any notion of efficient cause. "The trouble begins," he stated, "when we formulate general 'laws' of causality, for example, "every cause is causally related to something else," or "same cause, same effect."<sup>95</sup>

This mentality is general among econometricians. Most of the articles on economic causality have been authored

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<sup>92</sup> Herman O. A. Wold, "Causality and Econometrics," Econometrica, (April, 1954), Vol. 22., No. 2, p. 162.

<sup>93</sup> ibid., p. 166.

<sup>94</sup> ibid., pp. 165-166.

<sup>95</sup> ibid., p. 163.

by econometricians, who perforce are deeply involved with probability theory. Most are positivists in some form or other, notably Wold and J. L. Simon. Thus the concomitance of Hume is dominating the articles, to the exclusion of cause and effect causality.<sup>96</sup> As Julian

Simon has noted:

The conclusion of the unamended Humean view is that there is no difference between statements of cause-and-effect and all other associations, or as this view is propounded by FRIEDMAN 1953, that there is no difference between predictions and cause-and-effect statements.<sup>97</sup>

Thus we conclude that economists tend not to accept traditional causal relations in the weak law areas, explaining the causal relation in a purely associational sense and rejecting classical causal forces. We have

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cf. Herbert A. Simon, "Causality and Econometrics: Comment," Econometrica, (April, 1955), Vol. 23, No. 2, pp. 193-195; H. O. A. Wold, "Casuality and Econometrics: Reply," ibid., pp. 196-7; Gerald Garb, "The Problem of Causality in Economics," KYKLOS, (1964), Vol. 17, Fasc. 4, pp. 594-609; Juliam L. Simon, "The Concept of Causality in Economics," KYKLOS (1970), Vol. XXIII, Fasc. 2; pp. 226-254. Gerald Garb, "Reply to Simon," KYKLOS (1971), Vol. XXIV, Fasc. 4, pp. 767-8; Julian L. Simon, "The Concept of Causality in Economics: Comment," ibid., pp. 769-70.

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Julian L. Simon, "The Concept...", p. 229.

seen this above with Friedman.<sup>98</sup>

Nor do these economists claim that the weak laws are necessary. Jevons described them "as little more than compendious statements of numerical results."<sup>99</sup> And Haavelmo has showed us that there are an infinite number of relationships possible; how could some one of them be singled out as uniquely necessary? Wrote Haavelmo:

If the real phenomena we observe day by day are really ruled by the simultaneous action of a whole system of fundamental laws, we see only very little of the whole class of hypothetical variations for which each of the fundamental relations might be assumed to hold.... For the variations we observe, it is possible to establish an infinity of relationships, simply by combining two or more of the fundamental relations in various ways. In particular, it might be possible to write one economic variable as a function of a set of other variables in a great variety of ways.<sup>100</sup>

The weak laws are definitely considered quantifiable. In fact, Lange has defined econometrics as "the science which deals with the determination by statistical methods

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<sup>98</sup> supra, pp. 128-32.

<sup>99</sup> The Principles...., p. 146.

<sup>100</sup> op. cit., pp. 38-39.

of concrete quantitative laws.<sup>101</sup> Further on, he notes that econometrics makes concrete the schematic or theoretical economic laws.

On the other hand, Tintner indicates the imperfections in the quantitative versions of economic phenomena:

In economics we frequently, perhaps always, deal with phenomena which are qualitative, and which we can quantify only imperfectly. The qualitative residual shows itself then in non-linearities of the relations between quantified phenomena.<sup>102</sup>

The weak laws cannot be considered as "true" or "infallible." The very nature of the process of gathering empirical data is, as we have seen, fraught with the possibility of error. There is a distinct possibility of error in observations, assumptions, or functional form, as Tintner has warned us:

The econometrician has to make certain assumptions about the stochastic nature of the equations. Broadly speaking, he has to evaluate errors in the variables...and errors in the equations.<sup>103</sup>

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101 Introduction....., p. 13.

102 op. cit., p. 2; cf. Zeuthen, op. cit., p. 12.

103 op. cit., p. 76; See also Zeuthen, op. cit., p. 12.

Furthermore, when faced with the need to enter into the subjectivity of Bayesian probabilities, one realizes he is far from the area of self-evident truths. One must also make certain of the correspondence between the model being constructed and the data of the real world, a problem known as identification, which can create serious uncertainties.<sup>104</sup>

We need not tarry on the verifiability of the econometric laws, as that is the very essence of econometrics.<sup>105</sup> Finally, we will have to wait for a stronger class of law to note anything that exhibits any goal-directed or teleological force.

Thus these essentially weak laws will, according to their proponents, bear the empirical traits of verifiability and quantifiability. No one even suggests the presence of the stronger characteristics. This stands to reason. Laws that are essentially recordings of ephemeral relationships, and which depend on all the uncertainties of probability theory, are in no sense designed to provide

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<sup>104</sup> cf. Tintner, op. cit., p. 76.

<sup>105</sup> Lange, "The Scope....," pp. 20-21.

generalizations that can be classed as immutable, universal, or certain.

One example of the weak mathematical laws is Pareto's famous law relating income with the receivers of income. It has been written as:

$\log N = \log A - \log X$   
where N = the number of income receivers  
having the income X or greater.

One is hard pressed to find a causal or necessary relationship here. In fact, Pareto himself remarks:

This law being empirical, it may not always remain true, especially not for all mankind. At present, however, the statistics which we have present no exceptions to the law; it may therefore provisionally be accepted as universal. But exceptions may be found, and I should not be greatly surprised if some day a well-authenticated exception were discovered.<sup>106</sup>

In addition to the above qualities, econometrics presents its own special standards for statistical estimators; it is especially desirable that they be consistent, unbiased, and sufficient.<sup>107</sup> If the divergence of an estimator from

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<sup>106</sup> Vilfredo Pareto, Journal of Political Economy (September, 1897), Vol. V, p. 501; cited by Tarascio, op. cit., p. 115.

<sup>107</sup> See Tintner, op. cit., pp. 68-69.



its true mean tends to zero as the size of a sample increases, the estimator is consistent. It is unbiased if its mean value is equal to the true mean of the population. It is sufficient, if there is another estimator (like the variance of the distribution) that, given the first estimator, is distributed independently of it. Evidently, the smaller the sample, the more difficult is this process of determining such estimators.

The difficulties in developing models with these characteristics add justification to our classification of econometric laws as weak.

The Purpose of Econometric Law. What is the purpose of the econometric laws? Their authors have designed them for functions in the forecasting and policy areas. Lange noted that laws were established to "make successful prediction of human actions."<sup>108</sup> He considers them useful in predicting the results of the policies of government and non-government agencies,<sup>109</sup> for other forms of programming, and for the determination of optimum price and output decisions.<sup>110</sup>

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<sup>108</sup>"The Scope.....," p. 20.

<sup>109</sup>id.

<sup>110</sup>Introduction....., pp. 14-15.

Lange's view is again reinforced by Haavelmo, who stated:

In other quantitative sciences the discovery of "laws," even in highly specialized fields, has moved from the private study into huge scientific laboratories, where scores of experts are engaged, not only in carrying out actual measurements but also in working out, with painstaking precision, the formulae to be tested and the plans for the crucial experiments to be made. Should we expect less in economic research, if its results are to be the basis for economic policy upon which might depend billions of dollars of national income and the general economic welfare of millions of people? <sup>111</sup>

Thus these laws are designed primarily for prediction and control. Notwithstanding the fact that authors often use the adjective "explanatory" to describe the variables of a particular regression, these laws do not "explain" in the sense of the deductive laws.

We have thus reviewed the philosophy behind the applied quantitative laws and the type of generalization that has been derived by means of this theory. No intuitive postulates or theories are needed in the econometric logic. <sup>112</sup>

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<sup>111</sup> op. cit., pp. 114-115.

<sup>112</sup> except as it is attempted to quantify theoretical propositions.

There is no overall view of man's unchangeability, little belief in impulses toward normality or equilibrium, no set of strict assumptions as to the real world. The subject matter of economics is not pinpointed to anything more specific than the general notion of wealth-oriented activities.

The laws developed reflect what is observed in today's changing world, under the regimen of the strictures imposed by positivistic and probabilistic theory. There is no permanent frame of reference. Thus the laws themselves will tend to undergo perpetual change both temporally and locally. The subject matter will shift with each new wave of scientific interest; no one topic is essentially more important than another.

There is no intent here to belittle the efforts of many scientists who have succeeded in developing some astoundingly complex and useful models. We merely comment on the nature of the necessarily "weak" generalizations that emerge from these systems.

### The Historical Laws

We now turn to the weak historical laws, in an attempt to show the part "economic law" has played in the thinking of a large number of economists, who for over a century have been discussing the relationship between historical law and theory. The latter half of the nineteenth century especially witnessed many historical economists who were dubious of the absoluteness of the classical doctrine, were hard pressed to find theoretical justification for the harshness of the theoretical laws then expounded, and decried the inhumanity that they seemingly imposed upon the real world.

Typical of such scholars was the short-lived Arnold Toynbee (1852-1882), who rejoiced that the "Political Economy of Ricardo is at last rejected as an intellectual imposture."<sup>113</sup> Toynbee had been among those who opposed the Wages Fund Theory and the laws of distribution; but this by no means implies that he was against laws altogether.

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<sup>113</sup> Arnold Toynbee, Lectures on the Industrial Revolution of the 18th Century in England (Longmans, Green & Company, London, 1902), p. 1. Original edition: 1884.

Quite the contrary, he was an ardent promoter of the universality of law; however, his acceptance of law was tempered by a disposition to rework the problem, to soften the harsh effects of law and, at the same time, to correct the overstatements of the classical founders.

He recognized the benefits of the idea of "invariable law" in preserving peace and liberty. "It strengthened the belief in individual liberty - the mere freedom from restrictions - as the great economic truth..."<sup>114</sup> It promoted peace by causing the working man to believe that "the rate of wages is not the result of accidental causes within the control of man, but of great natural laws beyond his control."<sup>115</sup>

There are several clarifications, however, that must be made with respect to law. Toynbee wants, in the first place, to distinguish between the laws of physical science, which are "inevitable and eternal" and those of social science, which "express, for the most part, facts of human nature, which is capable of modification by self-conscious

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<sup>114</sup> ibid., p. 22.

<sup>115</sup> id.

human endeavor."<sup>116</sup> At the same time he holds that the law of diminishing returns admits of no exception, as it is "immutable."

Thus social law is generally modifiable, whether by "custom or law or public opinion." He illustrates this in his criticism of the famous "law" of Sir Henry Maine - that the movement of all progressive societies has hitherto been a movement from status to contract.

He reminds us that

...the State has over and over again had to interfere to restrict the power of individuals in which this movement results. The real course of movement has been first from status to contract, then from contract to a new kind of status determined by the law, - or in other words, from unregulated to regulated contract.<sup>117</sup>

Thus economic laws are modifiable, not inexorable, and even though Maine's Law is "true nearly of all civilized countries," its operation must be socially controlled.

Economic laws are relative, not absolute. Individual circumstances must be taken into account, as even free

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<sup>116</sup> id.

<sup>117</sup> ibid., pp. 30-31.

trade is not a universally sound policy. He cites Senior's failure to develop a universal law of government functions, because the latter did not recognize that "the proper limits of Government interference are relative to the nature of each particular state and the stage of its civilization."<sup>118</sup> Then, economic laws of the factual type are only roughly true, if their assumptions (in contrast to Friedman's view) are not realized in fact, in which case they "indicate the existence of strong overmastering tendencies."

Toynbee was an historian, and preferred the historian's approach to the abstract technique of Ricardo. Other historians like Cliffe Leslie considered Ricardo's method as "radically false"; even Sir Henry Maine who, though a follower of Ricardo, at times had to complain. Toynbee took a middle path. He felt that:

The historical method has revolutionized Political Economy, not by showing its laws to be false, but by proving that they are relative for the most part to a particular stage of civilization. This destroys their character as eternal laws, and strips them of much of their force and all their sanctity. In this way the historical method has rescued us from intellectual superstitions.<sup>119</sup>

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id.

<sup>119</sup> ibid., p. 25.

Examples of the type of law developed by Toynbee are certain "social and economic facts such as the increase in the number of marriages when corn is cheap, and the rise that takes place in the price of cotton when there is a short supply in the market." Such events, he says, "take place with a sequence almost as invariable as a law of nature."<sup>120</sup> In fact,

a large portion of the laws of Political Economy simply express the action of human beings as they are at present constituted under the existing system of law and social institutions.

Toynbee then is a typical exponent of a cautious attitude towards the notion of economic law. His fundamental attitudes assure that the type of law he envisions will be flexible, amenable to modification by custom and circumstance, and evidencing nothing of the inexorability so fashionable in his day.

Types of Historical Laws. As Toynbee has shown us, there are those who believe in historical laws. Agreeing with him is, for example, Wicksell, who stated:

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<sup>120</sup>ibid., p. 156.



Without the existence of such laws, history itself would be inconceivable, and what it teaches us of no avail to our generation and wholly inapplicable to the conditions of our times.<sup>121</sup>

Even Cliffe Leslie said that we need "a study of the history and the entire structure of society, and the laws which they disclose."<sup>122</sup>

Following Basmann, we can therefore distinguish between the "idiographic" conception of history, which considers its subject matter in the guise of unique instances, (Windelband and Rickert); and the "nomothetic" conception, whereby either history itself produces its own laws (Comte) or it explains events by means of "adducing the general laws established by the special sciences." (Hempel).<sup>123</sup>

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<sup>121</sup> Knut Wicksell, Selected Papers..., pp. 30-31.

<sup>122</sup> op. cit., p. 172.

<sup>123</sup> R. L. Basmann, "Role of Economic Historian in Testing of Preferred 'Economic Laws'," Explorations in Entrepreneurial History, Second Series, (Spring/Summer, 1965), Vol. 2, No. 1 (Earlham College, Richmond, Ind., 1965), reprinted in Purdue Faculty Papers in Economic History, 1956-1966 (Richard D. Irwin, Inc., Homewood, Ill., 1967), pp. 11-33.

Under the "unique" point of view, "history is characterized by its interest in actual, singular, or specific events, rather than in laws or generalizations."<sup>124</sup>

Such a philosophy would not be productive of laws, as Popper has noted. He goes on to quote H. A. L. Fisher and F. A. Hayek to indicate that, where history is considered a unique succession of phenomena, "there can be no generalizations."<sup>125</sup> Carl Hempel admits that if historical events were really unique phenomena, this fact would rule out the "applicability of laws."<sup>126</sup>

Haney confirms this by speaking of the "barrenness of generalization" which results from the studies which "become lost in concrete cases and become so interested in verification that they discover little of principle."<sup>127</sup>

It is, in general, the authors of the Austrian school that are opposed to the notion of historical laws (Mises, Hayek, Shenfield). In fact, they label, in a pejorative sense, the process of deriving empirical laws from history as historicism.

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<sup>124</sup> Karl R. Popper, The Poverty of Historicism (Beacon Press, Inc., Boston, 1957), p. 143.

<sup>125</sup> The Poverty..., p. 109.

<sup>126</sup> William H. Dray, Philosophy of History (Prentice-Hall Inc., Englewood Cliffs, N. J., 1964), p. 9.

<sup>127</sup> History..., p. 23.

In the words of Hayek:

This view on the one hand endeavors to find laws where in the nature of the case they cannot be found, in the succession of the unique and singular historical phenomena, and on the other hand denies the possibility of the kind of theory which alone can help us to understand unique wholes.<sup>128</sup>

But let us proceed now to the proponents of the historical laws.

To simplify our treatment of the nomothetic version of history, we can say that there are three types of historical law: the periodic, the connecting, and the overriding law. We have already made reference to the periodic assumptions of the German historians. Shenfield described this view as follows:

...there are no general laws of social behaviour which apply to men in all Societies or historical epochs. Thus, for example, no theory of price can hold good both in a feudal and in a capitalistic Society. To deduce it from the phenomenon of human -- not feudal human or capitalist human, but simply human -- choice in action, as economists do, is therefore illegitimate. Each epoch or stage in social development is sui generis. The springs of action in it can only be understood by the study of its institutions, and social and economic structure.<sup>129</sup>

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128 The Counter-Revolution..., p. 73.

129 Arthur Shenfield, "Scientism and the Study of Society," unpublished paper delivered to the Mount Pelerin Society, Hillsdale College, Mich., 24-28 Aug. 1975.

"The periodalists," as Mises called them, "believed that every period of history has its own economic laws different from those of other periods of economic history."<sup>130</sup>

Given their perspective, therefore, those economists who focused their studies on particular institutions, countries, or industries could, at best, determine regularities observed within their limited perimeter of observation. Historian Collingwood argues that the conditions of each period of history reflect a distinct social order. Thus laws are only possible which refer to distinct historical epochs. It is impossible to establish "permanent and unchanging laws of human nature."<sup>131</sup>

Connecting laws attempt to discover some regular process in the transition from one historical period to another. Having eliminated the possibility of general laws applicable to all times and places, some attempted to bridge the gap from one set of circumstances to another by positing laws of historical development.

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<sup>130</sup> Theory and History, p. 201.

<sup>131</sup> R. G. Collingwood, "The A Priori Impossibility of a Science of Man," Krimerman, op. cit., p. 18; reprinted from The Idea of History (Oxford University Press, Inc., New York, 1946) .

Neville Keynes had already recognized this philosophical approach. He noted:

Only by the direct comparison of successive stages of society can we reasonably hope to discover the laws in accordance with which economic states tend to succeed one another or to become changed in character.<sup>132</sup>

Thus there arose what Popper describes as "laws of process, of change, of development" in place of "the pseudo-laws of apparent constancies or uniformities."<sup>133</sup> Mises attributes such theories of historical stages to List, Hildebrand, Schmoller, and Bucher.<sup>134</sup> Shenfield, however, labels any "theory of history leading us to a law or laws of historical development" as "patent superstition."<sup>135</sup>

A special version of the law of stages, which has interesting implications for causality, is the endless chain law of Mandelbaum. For him history consists:

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<sup>132</sup> op. cit., p. 283.

<sup>133</sup> The Poverty..., p. 45.

<sup>134</sup> Epistemological..., p. 120.

<sup>135</sup> op. cit.

not in the formulation of laws of which the particular case is an instance, but in the description of the events in their actual determining relationships to each other; in seeing events as the products and producers of change.<sup>136</sup>

Here one event causes another, which in turn causes a third event, and so on.

Our final classification is that of the overriding laws, which purport to encompass entire civilizations.

Such laws are found, for example, in the works of Spengler<sup>137</sup> and Arnold J. Toynbee.<sup>138</sup> See also Spann<sup>139</sup> and Spencer.<sup>140</sup>

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<sup>136</sup> Carl Hempel, op. cit., p. 354 fn.

<sup>137</sup> Oswald Spengler, Decline of the West, Form and Actuality, trans. Charles F. Atkinson, (Alfred A. Knopf, Inc., New York, 1946). Original edition: C.H. Beck'sche Verlagsbuchhandlung, Munich, 1918-22.)

<sup>138</sup> Arnold J. Toynbee, A Study of History (Oxford University Press, H. Milford, London, 1934-1954).

Arnold J. Toynbee (1869-1974) should not be confused with Arnold Toynbee (1852-1882).

<sup>139</sup> Othmar Spann, Types of Economic Theory, trans. from the 19th German edition by Eden & Cedar Paul (George Allen & Unwin, Ltd., London, 1930). Original edition: Die Haupttheorien der Volkswirtschaftslehre (Quelle & Meyer, Leipzig, 1912).

<sup>140</sup> Herbert J. Spencer, The Principles of Sociology (D. Appleton & Company, New York, 1880-97).

We will not take up a study of these overriding laws, as they would lead us beyond the traditional confines of economics. In fact, historian Pieter Geyl complains of Toynbee's "portentous use of the word 'laws'."<sup>141</sup>

How then shall we fit the periodic and connecting laws into our frame of analysis? Unfortunately, we are immediately struck by the surprising absence of concrete examples of historical laws. When all the philosophizing comes to an end, there seems to be more noise than substance in this whole discussion, so much so that Mises accuses the historicists of not having succeeded "in establishing a single thesis that would have the same logical status as the propositions of the universally valid theory."<sup>142</sup> He added:

"Nor were the adherents of the Historical School ever able to point to any instance of a proposition for which the claim could be made that observation has established it as an economic law with merely temporal, local, national, or similarly limited validity."<sup>143</sup>

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<sup>141</sup> Pieter Geyl, "Scientism in the Writing of History," Scientism and Values, Helmet Schoeck and James W. Wiggins (Eds.), (D. Van Nostrand Company, Inc., 1960 ), p. 155. Reprinted by Arno Press and New York Times Company, 1972.

<sup>142</sup> Epistemological....., p. xvii.

<sup>143</sup> ibid., p. 27.

Some of the historical systems conform to our strong law category. They exhibit a rigid philosophical base and universal applicability. This will be noted especially in the Marxians, as will be discussed in Chapter VI, and the intellectual heirs of Hegel. As Geyl has said: "Hegel taught generations of historians...to present historical events as the inevitable and predetermined working out of ideas or currents governing the epochs."<sup>144</sup> Other laws will be subsumed under our "normal" scheme, especially those which employ the concept of the "ideal type" as their fundamental cognitive tool, in conjunction with the method of "understanding." We will have occasion to note the fundamental similarity between the ideal type concept and that of "normal" value used so extensively by the neo-classical economists.<sup>145</sup> Foremost of the ideal type theorists is Max Weber.

Most of the historical laws, however, are of the weak variety, as we will now attempt to show. They will evolve from the more idealist economists, more often those with

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<sup>144</sup> op. cit., p. 148.

<sup>145</sup> infra, pp. 314-5.



positivist outlook on causality and methodology. Even those economists with more metaphysical foundation do not present an integrated system sufficiently well-knit to be considered "strong." In fact, no one would label the output of historical economics as eternal laws.

Assumptions and Epistemology Underlying the Historical Laws. In examining the philosophical assumptions of the historians, we note that the essential characteristic inherent in their analysis is that of change.<sup>146</sup> The periodalists hold that man is constantly undergoing change, so much so that each particular epoch, whether it be that of some phase of the capitalistic era or of the national economy of a nation like Germany, must be studied on its own, with total emphasis focused on its own institutions and development. Schmoller, for example, following the Darwinian model, sought a "causal theory of the origin and growth of species in institutions."<sup>147</sup>

The stage-theory historians sought regularity in the transition from one epoch to another. Some held that even

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<sup>146</sup> Haney, Value and Distribution: Some Leading Principles of Economic Science (D. Appleton-Century Company, Inc., 1939), p. 56.

<sup>147</sup> Veblen, "Gustav Schomoller's Economics," The Place . . ., p. 265. Originally printed in Quarterly Journal of Economics (November, 1901), Vol. XVI, pp. 69-93.

human logic changes from time to time, and sought, in the words of Hayek, "the laws according to which the human mind changes."<sup>148</sup>

This, of course, is the exact opposite of the natural sciences, which postulate laws that describe uniformities in an unchanging world. It is also the opposite of the traditional economic approach to reality.

In addition to the lack of cohesiveness brought on by their attachment to change, the historians generally lacked any natural law philosophy or other theoretical base that would have served to coordinate and orient their efforts. Some of them took to the Hegelian metaphysics to provide this orientation. Hegel envisioned the world as a self-realizing spiritual life process, ever unfolding and developing itself. The human spirit, as part of this process, unfolds itself culturally. The relevance of this to economics is thus explained by Veblen:

The task which economic science has in hand is to determine the laws of this cultural ex-foliation in its economic aspect. But the laws of the cultural development with which the social sciences, in the Hegelian view, have to do are at one with the laws of the processes of the universe at large.<sup>149</sup>

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<sup>148</sup> The Counter-Revolution..., p. 76; cf. also Mises, Epistemological..., p. 102.

<sup>149</sup> Veblen, The Place..... pp. 259-260.

Roscher, clearly influenced by Hegelian Romanticism, believed that the function of economics was to determine the laws of the history of the nation.<sup>150</sup> Such laws would have to be empirical in fact, though inspired by the special vision that the economist has of this unfolding process. The later historians were not as dominated by this Romanticism. Schmoller, for example, thought the purpose of history was to set up "the laws of causation that work out in the process of economic life."<sup>151</sup> Not much developed from this world vision of mankind in what pertains to concrete laws, especially as the successors of Roscher did not specialize in theory. Only in the case of the Marxians was the attachment to the Hegelian metaphysic sufficiently close to bring out a stronger version of law.

It would not be correct to flatly state that most historians were positivists; however, many of them have been. In fact, historical epistemology at one time became something like a carbon copy of that of the natural

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<sup>150</sup> Haney, History....., p. 541.

<sup>151</sup> Veblen, The Place....., pp. 264.

sciences. As Mises noted of the periodologists:

They adopted the essential tenets of positivism, which rejected history as useless and meaningless chatter, and wanted to inaugurate in its place a new science to be modeled after the pattern of Newtonian mechanics. The periodologists accepted the thesis that it is possible to derive from historical experience a posteriori laws which, once they are discovered, will form a new - not yet existing - science of social physics or sociology or institutional economics.<sup>152</sup>

It was positivist Carl Hempel who held that explanation is accomplished by showing that some event in question is explained or "covered" by some general law. As he put it:

...the event under discussion is explained by subsuming it under general laws, i.e., by showing that it occurred in accordance with those laws, by virtue of the realization of certain specified antecedent conditions.<sup>153</sup>

By law Hempel means "a statement of universal conditional form which is capable of being confirmed or disconfirmed by suitable empirical findings."<sup>154</sup> He also calls general laws "universal hypotheses."

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<sup>152</sup> Theory and History, p. 201.

<sup>153</sup> Carl G. Hempel and Paul Oppenheim, "The Covering Law Analysis of Scientific Explanation," Krimmerman, op. cit., p. 54; reprinted from "The Logic of Explanation," Philosophy of Science, (April, 1948) Vol. 15, No. 2.

<sup>154</sup> "The Function...", p. 345.

In an explanation two sets of statements are needed, a group of antecedent conditions, which must be fulfilled, and a group of general laws, which apply under those conditions. Technically, this is stated as follows:

A "scientific explanation" consists of:

- (1) A set of statements asserting the occurrence of certain events,  $C_1, \dots, C_n$  at certain times and places,
- (2) a set of universal hypotheses [general laws] such that
  - a) the statements of both groups are reasonably well confirmed by empirical evidence,
  - b) from the two groups of statements the sentence asserting the occurrence of event E can be logically deduced.<sup>155</sup>

In Hempel's concept, laws are a vital ingredient of any explanation. They are nothing more than groupings of empirically evidenced propositions of the format: If A, then B. There is no room for pure theory.<sup>156</sup> The relation between A and B is one of empirical concomitance, not of classical causality.

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<sup>155</sup> ibid.; the symbol C can be taken as "cause" and E as "effect."

<sup>156</sup> We have already seen Scriven's views on law; see also Dray, Philosophy of History, pp. 15-18; and Popper, The Poverty...., pp. 122-3.

It can be noted at this point that it is not necessary that the general laws referred to be laws of history. Applicable laws from all other sciences are acceptable in an explanation. As Dray, quoting Joynt and Rescher, has said: "The historian...is not a producer of general laws but a consumer of them."<sup>157</sup>

Another distinct cognitive methodology that is used specifically in historical analysis is that of "understanding." Popper described this method as that of "sympathetic imagination" by which one seeks "the intuitive understanding of unique events, and of the role they play in particular situations."<sup>158</sup> "Understanding," as Mises defines it, "is the mental grasp of something that we are unable to bring under rules and explain through them."<sup>159</sup> He adds that empirical laws can never be derived by the method of understanding. The positivists, of course, reject the non-empirical connotations of understanding, and therefore reject it as a proper scientific method. We shall return to the use of understanding in the case of the normal laws.

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<sup>157</sup> Philosophy of History, p. 6.

<sup>158</sup> The Poverty....., p. 20.

<sup>159</sup> Epistemological....., p. 12.

Most of the historians, however, set about to determine the regularities of history by using the inductive method. Schmoller held that theory was to be constructed from the "building stones" furnished by history.<sup>160</sup> This method of ascertaining knowledge, apart from all theoretical preconceptions, is the essence of historicism. As Mises wrote:

The fundamental thesis of historicism is the proposition that apart from the natural sciences, mathematics, and logic, there is no knowledge but that provided by history.<sup>161</sup>

Popper has criticized historicist methodology as used by Comte and John Stuart Mill. They had spoken of laws of coexistence and succession, as well as laws of progress (which they tried to reduce to laws of the progressiveness of the human mind.)<sup>162</sup> The laws of succession were definitely of the historical type.<sup>163</sup> They tried to prescribe the historical sequence of events in accordance with some law, which would be based on a notion of the tendency of all men to perfection. In fact, says Popper:

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<sup>160</sup> Mises, Epistemological..., p. 9.

<sup>161</sup> Theory and History. p. 199.

<sup>162</sup> by a process of "inverse deduction," see infra. p. 290.

<sup>163</sup> Popper, The Poverty... pp. 72-3.

Mill speaks of a method that consists in attempting, by a study and analysis of the general facts of history to discover... the law of progress; which law, once ascertained, must...enable us to predict future events, just as after a few terms of an infinite series in algebra we are able to detect the principle of regularity in their formation, and to predict the rest of the series to any number of terms we please.<sup>164</sup>

Popper notes that Mill himself criticized this method, but he goes on to castigate him and Comte, especially because they entirely neglect the preconditions in Hempel's formulation, assuming that these are always and everywhere fulfilled. There must always be "specific initial conditions" that are prerequisite for progress; and it can never be assumed that they are always present. Popper considers this a major error of historicism. "Its 'laws of development' turn out to be absolute trends,"<sup>165</sup> in that they disregard the initial conditions and become mere trends, or better, prophecies. He goes on to call

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<sup>164</sup> J. S. Mill, A System of Logic..., Book VI, Ch. X, Sec. 3; cf. Popper, The Poverty...., pp. 117-8.

<sup>165</sup> ibid., p. 28.



their doctrine of historical laws "little better than a collection of misapplied metaphors." In fact, according to Popper, "there are neither laws of succession, nor laws of evolution."<sup>166</sup>

The result of this approach is that theory is replaced by history. Sociology becomes a form of theoretical history.<sup>167</sup> Knowledge is to be derived directly from the analysis of observations made from history and not from any a priori principles. As a result recourse is had by and large to induction by means of a process

...that works from the particular to the general and leads a thinker to look outside himself to the external world for facts to serve as the basis of empirical laws.<sup>168</sup>

Historical laws then become straightforward empirical laws, employing historical data as the basis for the empirical observations. Haney is quite pessimistic as to the results obtained from this "one-sided" method. He agrees with Hasbach that it "will not suffice for a science of exchange among men."<sup>169</sup> "The historical law must," he concludes,

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<sup>166</sup> ibid., p. 119.

<sup>167</sup> ibid., p. 117.

<sup>168</sup> cf. Popper, The Poverty..., p. 39.

<sup>169</sup> Haney, History...., p. 23.

"ever be an empirical one based on an ever incomplete experience."<sup>170</sup>

Mises contests the validity of propositions "arrived at through induction on the basis of a presuppositionless observation of 'facts.'"<sup>171</sup> He stated: "The study of history always presupposes a measure of universally valid knowledge."<sup>172</sup>

It is important to note the holistic methodology employed by the historicists. This has prompted a debate not only among economists, but in the entire social science field. The attention of the historian was directed away from the study of individuals towards the "wholes" observable in the pages of history: particular markets, institutions, or nations. The laws which ensue then became "laws of the succession of immediately apprehended wholes."<sup>173</sup>

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<sup>170</sup> ibid., p. 549 .

<sup>171</sup> Epistemological...., p. 28.

<sup>172</sup> ibid., p. 2.

<sup>173</sup> Hayek, The Counter-Revolution.... p. 74.

Thus the historical school held that;

it is no longer worth while framing general formulas as to the relations between individuals in a given society, like the old "laws" of rent, wages, profits; and that what they must attempt to discover are the laws of social development - that is to say, generalizations as to the stages through which the economic life of society has actually moved.<sup>174</sup>

In analyzing the holistic attempt to derive such historical laws, one is immediately handicapped by the vagueness of the starting point and this difficulty becomes aggravated by the inclusion of many factors "whose role we are unable to determine precisely."<sup>175</sup> Thus Hayek judges as naive the attempt to derive from "the complexes which history studies as given wholes" anything that can be labeled "laws of the development of these wholes."<sup>176</sup>

In recent years the possibility of societal or holistic laws has taken the form of a very interesting, if theoretical, debate, in which non-individualists are

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<sup>174</sup> Sir William Ashley, An Introduction to English Economic History and Theory (Longmans, Green & Company, London, 1888.) Reprint: (Augustus M. Kelley, New York, 1966), p. xii.

<sup>175</sup> Mises, Epistemological...., p. 47; pp. 115-6.

<sup>176</sup> Counter-Revolution....., p. 73; See also Popper's criticism of holism, Poverty....., pp. 76-8.

pitted against the individualists. This debate has been framed in terms of "The Individual: Product or Maker of Society?"<sup>177</sup> It seeks to judge between the methodological collectivists or holists, who advocate socio-historical or socio-cultural laws, and the methodological individualists, who deny the possibility of such laws.

The individualist view is that the two positions are "exhaustive alternatives."<sup>178</sup> For them all social explanations can ultimately be traced to "a particular configuration of individuals, their dispositions, situations, beliefs, and physical resources and environment."<sup>179</sup> The classic statements of methodological individualism have been made by Hayek<sup>180</sup> and Popper.<sup>181</sup> What is especially denied

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<sup>177</sup> Leonard I. Krimerman (Ed.), The Nature and Scope of Social Science, A Critical Anthology (Meredith Corp., New York, 1969), pp. 587-688.

<sup>178</sup> J. W. N. Watkins, "The Alleged Inadequacy of Methodological Individualism," Krimerman, op. cit., pp. 621-624; reprinted from The Journal of Philosophy (1958), Vol. 55, pp. 390-395.

<sup>179</sup> J. W. N. Watkins, "Historical Explanation in the Social Sciences," Krimerman, op. cit., p. 604; reprinted from the British Journal for the Philosophy of Science (Aug. 1957, Vol. 8, No. 30, pp. 104-117.

<sup>180</sup> The Counter-Revolution....., passim.

<sup>181</sup> The Poverty....., passim.

is the admissibility of historical or sociological laws.<sup>182</sup>  
These authors use historicism in the different sense  
that "society is impelled along a pre-determined route  
by historical laws which cannot be resisted but which  
can be discerned by the sociologist."<sup>183</sup>

If, on the contrary, the holists are correct, there  
exist social phenomena which originate independently of  
man's will and are entirely unexplainable on the basis  
of any part that individuals have taken in them. They  
hold to the possibility of social laws that are irreducible,  
meaning that "explanation in social science need not, and  
perhaps cannot be individualistic."<sup>184</sup>

Mandelbaum maintains that the belief in such laws  
does not depend on the strict dichotomies that Watkins  
has expounded. There is no necessity for a thesis of  
historical inevitability, or even of holism itself, in

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<sup>182</sup> ibid., p. 610.

<sup>183</sup> ibid., p. 605.

<sup>184</sup> Leon J. Goldstein, "The Two Theses of Methodological Individualism", Krimerman, op. cit., p. 627; reprinted from the British Journal for the Philosophy of Science, ( May 1958), Vol. 9, No. 33., pp. 1-11.

order to accept the possibility of such laws<sup>185</sup>

Of course, in our terms, such laws as would be produced from this thinking, would not be of a strong character, for the same reasons of lack of a universal, causal, and necessary relationship that characterizes stronger laws.

The debate remains at a standstill, and we do not follow it more in detail because it would lead us outside the pale of economics. However, it goes to confirm our contention that individualists will in general tend to propose a stronger version of law than those who use other methods.

Qualities and Purpose of the Historical Laws. It is clear that the historical laws, in general, have none of the strong-law qualities; one does not think of them as universal, necessary, or certain. Helmer and Rescher prefer the term quasi-law to that of law; they state:

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<sup>185</sup>Maurice Mandelbaum, "Societal Laws," Krimerman, op. cit., pp. 642-650; reprinted from the British Journal for the Philosophy of Science, (Nov., 1957), Vol. 8, No. 3, pp. 211-224.

An historical law is thus not strictly universal in that it must be taken as applicable to all cases falling within the scope of its explicitly formulated conditions; rather it may be thought to formulate relationships which obtain generally, or better, as a rule.<sup>186</sup>

Mises further said: "Historicism maintains that it is a waste of effort to search after universally valid regularities that would be independent of time, place, race, nationality, and culture."<sup>187</sup> Haney distinguishes between an "historical law and one good at any time,"<sup>188</sup> indicating the lack of universality implied in the term historical. Roscher, Haney reports, "denied absolute truth to general economic laws."<sup>189</sup> It is also clear that historical causality has been of the weak Humean variety.<sup>190</sup>

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<sup>186</sup> Olaf Helmer and Nicholas Rescher, "On the Epistemology of the Inexact Sciences," Krimerman, op. cit., p. 184; reprinted from Management Science, (October, 1959), Vol. 6, No. 1, pp. 25-52.

<sup>187</sup> Epistemological..., p. 5.

<sup>188</sup> History...., p. 526.

<sup>189</sup> ibid., p. 540.

<sup>190</sup> For a discussion of the various conceptions of historical causality, see Dray, Philosophy of History, pp. 41-58; and Popper, The Poverty..., pp. 129-30.

According to Popper, the historical laws are not even susceptible of quantification for the reason that certain qualities "can only be appraised by intuition,"<sup>191</sup> not by measurement. Perhaps, the majority of historians want to retain verifiability as one of the characteristics of these laws, in accordance with general positivist teaching.

The historical laws have been utilized both for explanation and prediction. Popper finds prediction as the essential feature of historicism, stating:

I mean by 'historicism' an approach to the social sciences which assumes that historical prediction is their principal aim, and which assumes that this aim is attainable by discovering the 'rhythms' or the 'patterns', the 'laws' or the 'trends' that underlie the evolution of history.<sup>192</sup>

As we have seen, Popper is against the concept of historical laws; however, he later states that the difference between prediction and explanation is merely a matter of emphasis.<sup>193</sup>

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<sup>191</sup> The Poverty, p. 26.

<sup>192</sup> The Poverty, p. 3.

<sup>193</sup> ibid., p. 133.



Are the historical laws designed as a vehicle for social action on the part of these economists? It is, of course, clear that many of the latter, having been aroused by what they considered to be insufferable conditions in the world, in the words of Popper, "feel a call to be active; to interfere especially with human affairs, refusing to accept the existing state of things as inevitable."<sup>194</sup> Thorold Rogers expresses this point of view:

Many persons - an increasingly large number of persons - demand...that society be constructed on new lines, as Frankenstein made his man, or monster. To meet these people with the law of supply and demand, to point out to them the bliss of unrestricted competition.....is to present them with logomachies which they resent. They believe that economists are uttering optimism to order.<sup>195</sup>

Mises also states that positivist historians are searching for the laws of social "engineering."<sup>196</sup>

Popper points out, however, that there is a philosophical brake that restrains the activist economist to

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<sup>194</sup> The Poverty...., p. 8. See also p. 60.

<sup>195</sup> op. cit., p. vii.

<sup>196</sup> Theory and History, p. 285.

those activities only that are in accord with the mainstream of overall historical movement.

We thus bring to a conclusion our survey of the historical laws. Unfortunately, much of the practical work done by the historical economists, from the German historians onward, has not bequeathed us "laws" that have withstood the test of time. Also, it is clear that the theory and methodological basis for these laws is in general disarray and needs reworking on the part of those economists interested in historical laws.

Say's Law, Keynes, and the Macroeconomists

Some examples of weak laws are found in John Maynard Keynes's General Theory.<sup>197</sup> It seems that Keynes himself has proposed three separate laws. The first is that of the famed marginal propensity to consume, which he stated as follows: "When employment increases, consumption will increase, but not by so much as effective demand."<sup>198</sup>

As a function of the above and, as well, of the conditions of production, Keynes describes the law of the multiplier:

We have here established the law that increased employment for investment must necessarily stimulate the industries producing for consumption, and thus lead to a total increase of employment which is a multiple of the primary employment required by the investment itself.<sup>199</sup>

Finally, his third law refers to the expectation that "workers will not seek a much greater money-wage when employment improves or allow a very great reduction rather than suffer any unemployment at all."<sup>200</sup>

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<sup>197</sup> op. cit; cf. Schumpeter, History..., p. 15, fn 1.

<sup>198</sup> ibid., p. 30.

<sup>199</sup> ibid., p. 118.

<sup>200</sup> ibid., p. 252.

Each of these laws depends directly or indirectly on the assumed "psychological propensities of the public" or on the psychology of the working population. Keynes does not present these laws as certainties, nor is he definite as to their methodological derivation, though he seems surer of himself in dealing with an empirical argument, saying, for example, with regard to the marginal propensity:

But whether or not this psychological law strikes the reader as plausible a priori, it is certain that experience would be extremely different from what it is if the law did not hold.<sup>201</sup>

Moreover, Keynes's laws apply to the "average of individuals" and are "likely to be also true of governments."<sup>202</sup>

In any case, Keynes does believe in such a thing as true law; as he affirms as much when denying the validity of Say's Law.<sup>203</sup> The principal rationale for his rejection of Say's Law is not on methodological grounds, but for the

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<sup>201</sup> ibid., p. 251.

<sup>202</sup> id.

<sup>203</sup> ibid., p. 26.

simple reason that he does not believe it correct. Sowell argues that Keynes, in any case, would be on weak ground in criticizing Say's methodology because he holds that Keynes himself mixes abstract models with policy just as the classical economists did.<sup>204</sup> Our interest does not extend to arguments of content; references to the literature coverings Keynes's critique of Say are numerous.<sup>205</sup>

One of Keynes's closest disciples, Alvin Hansen, wrote of Keynes's interest in psychological laws, manifested in the behavioral patterns of the community, and contributed a lengthy refutation of Say's Law.<sup>206</sup> Hansen retained the "law" terminology in referring to the Keynesian laws; however, Keynes's later followers seem to have discarded the use of the term "law," although seemingly there are no macroeconomic principles more frequently heralded than the marginal propensity to consume and the multiplier.

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<sup>204</sup> Thomas Sowell, Say's Law, an Historical Analysis (Princeton University Press, Princeton, 1972), p. 232.

<sup>205</sup> cf. for example, Jacob T. Schwartz, Lectures of the Mathematical Method in Analytical Economics (Gordon & Breach Science Publishers, Inc., New York, 1961), pp. 106-109.

<sup>206</sup> Alvin Hansen, A Guide to Keynes (Mc Graw-Hill Book Company, Inc., New York, 1953), see especially pp. 3, 33, 130.

An indication of a modern macroeconomist's treatment of law can be seen in Ackley's Macroeconomic Theory.<sup>207</sup> He uses the law terminology in speaking of the "classical 'law of demand',"<sup>208</sup> or in stating that the "aggregate consumption-income relationship (2 sectors) would be a compound or product of two kinds of 'laws' - laws relating to the consumer behavior of the several sectors, and laws relating to the distribution of income."<sup>209</sup>

It is not clear just to what extent Ackley accepts the validity of a theoretical law, as opposed to an empirical one. He does state that:

A priori analysis cannot derive "laws" of behavior that are valid at any instant of time, much less generalizations that can be used to predict or describe behavior.<sup>210</sup>

He clearly labels Engel's Law an "empirical hypothesis."<sup>211</sup>

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<sup>207</sup> Gardner Ackley, Macroeconomic Theory, (Macmillan Publishing Company, Inc., New York, 1961).

<sup>208</sup>op. cit., 162.

<sup>209</sup>ibid., p. 21.

<sup>210</sup>ibid., p. 220.

<sup>211</sup>ibid., p. 221.

And he offers the following equation as the "result" of a law determining income distribution:

$$A = 40 - .4 (A - B)^{212}$$

Thus the laws he describes seem to be on the whole more empirical than theoretical, more holistic than individual, more quantitative than qualitative.

Another instance of macroeconomic law is evidenced by Samuelson's Business Cycle model of the 1930's. This, reports Hurwicz,

postulated an economy governed by two laws:  
(a) current consumption is a linear (increasing) function of last year's income;  
(b) current investment is proportionate to the rate of change of consumption.<sup>213</sup>

An interesting addendum demonstrates a further belief in the psychological origin of these laws:

One need not postulate different laws of behavior for the different phases of the cycle; while the laws themselves remain fixed (that is, the relationship of current consumption to last year's income is the same at the

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<sup>212</sup> ibid., p. 21.

<sup>213</sup> Leonid Hurwicz, "Mathematics in Economics: Language and Instrument," Mathematics and the Social Sciences, James E. Charlesworth (Ed.) (AAPSS, Philadelphia, 1963), p. 10.

height of the boom as in the depth of the depression), the economy can be oscillating between high and low levels of performance in regular manner.

Here again we repeat the same commentary as on Ackley. It is interesting that these "laws" no longer appear as such in the literature.

What are the foundations for laws such as these? Their theoretical basis often consists of some "macro-economic truisms,"<sup>214</sup> and their validity rests on certain presumptions, for example, that the composition of aggregates is stable, and that some of the variables will cancel out when dealing with the whole economy.<sup>215</sup> The resultant propositions could not be classified, therefore, as universal or certain, a pattern that has been consistently the same with all empirical formulations. It is for this reason that they have been included in this chapter with the weak laws.

It appears, in retrospect, that macroeconomics, as a subclassification of economics, has not been the ambient

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<sup>214</sup> Ackley, op. cit., p. 23.

<sup>215</sup> id.



for a flourishing concept of law. And why this? Once again, we revert to the assumptions employed by macro-economists in general. Theory is based on aggregative concepts and data, much as with the historians and econometricians (who are most often macroeconomists themselves ) and in contrast with those economists who base their theorizing on the action of individual members of the economy. They do not have as precise a notion of what economics is to demonstrate, most especially as far as the individual economic actor is concerned. Add to this the fact that many of them, as empiricists, and following Hutchison, tend to favor empirical over theoretical propositions. This tends to foster a decidedly indifferent attitude toward law, especially in the modern positivist climate.

### Law in the Social Sciences

The social scientists, other than the economists, have also been engaging in extensive discussions as to the possibility of law in social science and its explanatory value. We have already referred to the opposition to law that exists among this group. It remains to add a few references to the many social scientists who uphold the validity of lawlike statements and to the problems they are discussing. For example, Krimerman tells us that:

Brown and Merton contend that there are generalizations within the social sciences that fulfill the same criteria as physical laws. And they insist that this is true whether law is meant as "an isolated proposition summarizing observed uniformities" or as "a statement of invariance derivable from a theory."<sup>216</sup>

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<sup>216</sup>op. cit., p. 207; cf. Robert K. Merton, Social Theory and Social Structure (The Free Press, a Corporation, New York, 1957); excerpts reprinted in Krimerman, pp. 214-6, as "Two Types of Social Uniformities." Robert Brown, Explanation in Social Science (Aldine Publishing Company, Chicago, 1963); excerpts reprinted in Krimerman, pp. 240-66, as "The Accessibility of Genuine Social Laws and Theories."

Spence<sup>217</sup> speaks in favor of quantitative behaviorist laws of the stimulus-response type in psychology; and Newell and Simon sustain this by claiming that the processes of human thought can be reproduced on a computer, as a means of explaining behavior.<sup>218</sup>

Notwithstanding a great amount of work already accomplished, the sociologists have not advanced the subject of law as yet to a satisfactory state. Merton admits that:

Despite the many volumes dealing with the history of sociological theory and despite the plethora of empirical investigations, sociologists (including the writer) may discuss the logical criteria of sociological laws without citing a single instance which fully satisfied these criteria.<sup>219</sup>

The social scientists raise many of the same questions that are of interest to the economists, as, for example,

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<sup>217</sup> Kenneth W. Spence, "The Nature of Theory Construction in Contemporary Psychology," Psychological Review (January, 1944), Vol. 51, No. 1; reprinted in Krimerman, op. cit., pp. 267-78, as "The Classical Case for Behaviorist Theory."

<sup>218</sup> Allen Newell and Herbert A. Simon, Contemporary Trends in Psychological Theory (The University of Pittsburgh Press, Pittsburgh, Pa., 1961); reprinted in Krimerman, op. cit., pp. 289-305, as "That 'Computer Behaviorism' Can Account for Human Thinking."

<sup>219</sup> Krimerman, op. cit., p. 215, citing Merton, op. cit.

the exact nature of the human sciences, as distinct from the natural sciences, and the implications of this for the concept of law. They have inquired whether or not it is necessary that each and every human act must be subject to law, or whether only certain such acts be so subsumed. They have investigated the necessary and sufficient conditions for a law.<sup>220</sup> All this indicates the depth and variety of interest on the part of other scientists in these questions. Unfortunately, it would be impossible here to do justice to these and many other authors, who have contributed to a better understanding of scientific law.

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<sup>220</sup> cf. Scriven, "Truisms...", op. cit.

## Weak Laws in Retrospect

In our review of a great variety of laws, certain salient features have stood out. The most noteworthy is the clear lack of a solid foundation upon which to construct a science of economics. Whether it be the empiricists, the historicists, or the econometricians, these economists offer laws that portray constant movement towards uncertain destinations. Either we are offered ever-changing empirical generalizations, shifting historical periods, or laws that must be updated with the announcement of each year's statistics. This is in contrast with the tendency towards an objective normality, which will be seen in the next chapter, or the immutable economic postulates of Chapter VI.

Add to this uncertainty about the finality of economic theory another uncertainty caused by legitimate concerns over the validity of the various methods employed. We are constantly reminded of "truisms," "guesswork," or error terms, that serve little to inspire confidence in economic analysis itself. In point of fact, very few generalizations have come out of many long years of exuberant discussion. We have seen a distinct lack of historical laws, very few empirical ones; and even the

three laws bequeathed by The General Theory seemed to have lost their title of law in the later literature. Practically nothing of the famed historical laws of the last century have survived the test of time.

Much of this has been due to the positivist orientation of many economists. This has been seen not only in Hutchison, but in the rejection or discounting of theory by the historicists and many econometricians. Practically, no universal principles were discovered. Many of the offerings were ad hoc models, with a flimsy base unconnected with the rest of economic theory, unrelated to any rigorous definition of economics. In methodology, positivism generally prevailed, although this cannot be said about Keynes, or the grandiose, but defunct Weltanschauungs of some historians. Rationalism was generally bypassed in favor of the positivist norms.

In other points of philosophy, it is clear that a constructive rationalism inspired many of these authors to desire to modify economic conditions; that is, they were idealists, in Haney's sense. Almost all were methodological collectivists, except mathematicians like Schultz, whose econometrics was a take-off from the demand curves of individuals.

In passing to the normal laws, we will notice at once a more rationalist philosophy that directs economic affairs towards beneficent ends and towards some normal equilibrium. The laws that emerge will be based on "principle" and will display a remarkable degree of permanence and successful resistance to attack.

## CHAPTER V

### NORMAL ECONOMIC LAWS

As to the action of the Government for the relief of the famine being a "setting aside of the laws of Political Economy," it would be just as reasonable to talk of precautions against a hurricane, or against a high tide, being a setting aside of the laws of physical nature. Will people never understand that a "law" of Political Economy is a "law" in no other sense than the law of gravitation, and that it is not an act of Parliament, or a rule prescribed by any one, which governors-general can "set aside?"<sup>1</sup>

J. E. Cairnes,  
Some Leading Principles  
of Political Economy,  
Newly Expounded

<sup>1</sup> J. E. Cairnes, Some Leading Principles of Political Economy, Newly Expounded (Macmillan and Company, London, 1887), p. 111.



We come now to the category of normal laws, which represent the thinking of a long line of economists stretching from the founding fathers on through many of the economists of the present generation.

From the pens of these men, under diverse labels and descriptions, and in part or in their entirety, have flowed the laws that are familiar to all students of the science.

In the first place there are the laws of production. Most frequent are those of returns, diminishing, increasing, or constant. Then there are the general laws of population, accumulation of capital, and of agricultural production. Also, there are special laws of, for example, the distribution of precious metals, the extensive margin of cultivation, of self-replacement, and of transportation.

Then there are laws of value and price: of both natural value and market value; laws of utility, especially of diminishing final or marginal utility (satiabile wants), and now of the diminishing marginal rate of substitution.

Especially remembered are the variants of the law of supply and demand: the laws of competition, of indifference, of exchange, of substitution; as well as those

of international trade, of the value of money, Gresham's Law, of the fluctuation of credit and prices, and of the elasticity of demand.

There are laws of consumption, as well, including Engel's Law.

Finally, there are the famous laws of distribution: of the final productivity of labor, land, capital, and enterprise, and of the diminishing marginal rate of factor substitution. Most notorious of all was the eventually rejected "Iron Law of Wages."

These laws are clearly of a different calibre than the weak laws of the previous chapter. They are based on a firm set of postulates and derive from a generally rigid deductive or mathematical argument. They are meant to describe what many of their authors have described as normal economic conditions or a state of equilibrium. At the same time, they are not meant to apply to all human endeavors, rather to some limited, generally quantifiable, aspects of human conduct under certain restricted conditions, as that of perfect competition.

For this reason they are labeled here as normal laws and occupy the middle positions between the weak laws seen above and the strong laws that follow. The latter will tend to describe not only conditions leading towards

equilibrium, but the entire gamut of human action; in their authors' views, they will not need the exceptions and qualifications required for the normal laws.

The normal laws can also be called ceteris paribus laws, because, more often than not, they require some mental reservation as to their applicability. They are, therefore, of a degree less than totally universal, because of these reservations.

Economists have been formulating or recasting normal economic laws since Ricardo. Though the nineteenth century could be considered the golden era of this concept of law, nevertheless, even modern authors write in this vein. Thus it is not chronology which forms the dividing line between the normal laws and the other two categories, but rather, as will be seen, the package of assumption, postulate, and method which their diverse authors, regardless of age, have infused into them.

Who then are these economists? Here are mentioned some representatives from each of several logical groupings:

1. from the founding fathers: the Physiocrats and Adam Smith;
2. from the earlier classical economists: as Ricardo, Malthus, Say, McCulloch, Senior, and James Mill;

3. from the later classical and neo-classical economists: John Stuart Mill, Cairnes, Marshall, John Neville Keynes, and John Bates Clark, on the one hand, and then later on Seligman and Knight;

4. from the equilibrium and mathematical economists: Walras, Pareto, and more recent economists like Hicks, who represent the mathematical wing of the science.

These are, one and all, lawmen, though some are so to an eminent degree, notably John Bates Clark and John Neville Keynes, whose writings are impregnated with law and applications of law. Some economists, in general, utilize laws only to enunciate main principles, as Wicksell and generally those in the second grouping above. Still others present a blend of general principles combined with detailed laws, as Stuart Mill and Cairnes. Several classical economists, as Torrens and Bagehot, speak only marginally of law. A notable group limits discussion of laws to various aspects of "returns" or costs, as Irving Fisher, Cassel, Robinson and Chamberlin and Heilbroner.

Finally, some economists, who propounded weaker versions of law in the last chapter, reappear again with

stronger variants, notably Jevons and Schultz.

It has already been pointed out how many modern, especially non-mathematical, authors have taken a somewhat eclectic view towards law. They are, in general, not lawmen, but rather seek to restate some portion of the received doctrine, especially in many textbooks of current vintage.

For others of these economists law is such a vital ingredient of the science that the body of economic laws which they have proposed can be equated with economic science itself. However, this is not true universally.

Presented here are some vignettes from the writings of a variety of economists that will indicate that for them "law" is not a marginal or superfluous matter.

Say, for example, announced the purpose of his Book II as being "to ascertain the laws, which regulate the distribution of value."<sup>2</sup>

Malthus, emphasized the need for economic law thus:

The laws which regulate the movements of human society have an infinitely stronger claim to our attention [than the physical laws], both because they relate to objects about which we

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<sup>2</sup> op. cit., p. 284.

are daily and hourly conversant, and because their effects are continually modified by human interference.<sup>3</sup>

James Mill began his text as follows:

Four inquiries are comprehended in this science:

- 1st. What are the laws which regulate the production of commodities:
- 2dly. What are the laws according to which the commodities produced by the labour of the community are distributed:
- 3dly. What are the laws according to which commodities are exchanged for one another:
- 4thly. What are the laws which regulate consumption.<sup>4</sup>

Jevons noted the importance of his law of indifference thus:

This law of indifference, in fact, is but another name for the principle of competition which underlies the whole mechanism of society.<sup>5</sup>

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<sup>3</sup> Rev. T. R. Malthus, Principles of Political Economy, Considered with a View to their Practical Application, 2nd ed. (William Pickering, London, 1836), p. 10. American Edition: (Wells and Lilly, Boston, 1821.) See also Robert Malthus, The Principles of Political Economy, 2nd ed. reprint (The London School of Economics and Political Science, London, 1936), p. 10.

<sup>4</sup> James Mill Esq., Elements of Political Economy (Baldwin, Cradock, and Joy, London, 1821), p. 4.

<sup>5</sup> The Principles....., p. 60.

In defining political economy Neville Keynes wrote:

We ought to recognize as fundamental a positive science of political economy which is conceived purely with what is, and which seeks to determine economic laws.<sup>6</sup>

In maintaining, then, the possibility of a science of political economy, nothing more is meant than that it is possible to discover general laws of economic phenomena, to coordinate these laws, and to explain particular economic facts by means of them.<sup>7</sup>

Finally, Knight spoke of distribution as follows:

In the absence of a law connecting distributive share with effective contribution, our social<sub>3</sub> system would be no system, but chaos.

Thus it is clear that many writers gave uncompromising testimony to the great importance they assigned to economic law in their writings.

It is planned to analyze the normal laws in accordance with the scheme presented in Chapter II.<sup>9</sup> First, we will review the assumptions of the normal law economists,

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<sup>6</sup> op. cit., p. 36.

<sup>7</sup> ibid., p. 150.

<sup>8</sup> Frank H. Knight, Risk, Uncertainty and Profit (Houghton, Mifflin, and Co., Inc., New York, 1921), p. 103.

<sup>9</sup> cf. supra, p. 80.

including the philosophical positions taken by the group, their views on the nature of economic science, and the economic assumptions postulated. It will be shown how these favor a credence in economic law. We will subsequently examine the meaning of law for this group, as well as the qualities of the laws derived by the deductive method. Finally, we will examine how the purpose of the normal laws is primarily explanatory. The net result will be a package of assumption, method, and generalization. apt for describing a normal or equilibrium economic world.



The Assumptions of the Normal Law Economists

It must now be shown how the categorization of normal law derives fundamentally from the various assumptions adopted by these economists, and especially from their basic philosophical positions in those critical areas we have previously noted. These assumptions will include some unifying principle, upon which to build a structure of laws; the economists' understanding of the subject matter of economics; as well as the set of postulates from which they derive their clear-cut laws. It will be seen that certain of these factors will favor a lawlike attitude, and others will prevent this group from achieving truly universal laws.

Philosophically, one would expect to find these economists to be more dedicated to describing the existing state of the world, rather than devising measures to reform it by innovative theory or practice. Perhaps they can, along the lines and in the limited sense of Haney<sup>10</sup>, be all classified as materialist thinkers; they do, indeed, hold that the scientific world is governed by law. They are also, in general, critical rationalists in the sense of Popper-Hayek. They all accept a fixed dispensation

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<sup>10</sup> Haney, History..... pp.8-20.

of a fundamentally unchanging reality, including the human portion, from which they deduce catalogued regularities, in some instances most emphatically. They generally acknowledge the validity of and utilize the deductive process of logic, being willing to assert propositions which are "unverified" in Hutchison's sense - like the economic man - as premises in their reasoning. Even though many of them emphasize the importance of induction and factual studies, the bulk of their contribution is in the analytical area.

As Thorstein Veblen has written,<sup>11</sup> the orthodox economist viewed human nature as one unchanging, perennial reality. There is a lasting unity in man. On lower planes, things come and go; technology and customs undergo all sorts of modifications. But the basic "man" does not. This view of man is quite different from the uniquely situated man of the historians and the man who is per-

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<sup>11</sup> Thorstein Veblen, The Place of Science in Modern Civilization (The Viking Press, Inc., New York, 1942.) Veblen has here given us one of the more complete philosophical analyses of the classical and neo-classical laws. We shall follow his line of thinking in many of the arguments of this chapter. See especially "The Preconceptions of Economic Science," an essay published originally in the Quarterly Journal of Economics in three parts. I (Jan. 1899), Vol. XIII, pp. 121-150; II (July, 1899), pp. 396-426; III (Feb. 1900), Vol. XIV, pp. 240-269.

petually the source of new observations on the part of Hutchison or the econometricians. This view is fundamental to those theorists who envision science as best expressed in the form of permanent generalizations or laws.

This was a pre-Darwinian view of things, inasmuch as man was portrayed as the same, now and always, never to undergo any process of essential change. It made of economics a static science, not dedicated to the dynamics of change; it made it a taxonomic science, as Veblen has noted again, because it devoted itself to fixed classifications of factors of production, or market structures, or demand processes, all inalterably subservient to the higher law of nature. For this, of course, it was criticized as unreal, because its higher speculations were not checked by frequent comparison with the changes of day-to-day reality.

In addition to their views on the unchanging nature of man, those economists have had to draw on some fundamental principle, which was to serve as the unifying force or foundation for the structures they built. Nor was this force the same for all economists. As has already been pointed out, some of them structured their edifice on

natural law; others on utilitarianism of the classical form; still others on modern rationality principles. All of these principles, however, have led to a concept of what we have described as normal laws.

It was the natural law that first gave unity to economics. Veblen discerned the purest application of the law of nature in the writings of the Physiocrats and of Adam Smith. Here the overarching direction of economic activity came from the natural order, which nourished all things, or the invisible hand, which guided them. He stated:

Physiocratic economics is a theory of the working out of the Law of Nature (loi naturelle) in its economic bearing; and the Law of Nature is a very simple matter..... Conformity to these "immutable and unerring" laws of nature is the test of economic truth.

Following the Physiocrats, Adam Smith posited a metaphysical order of a milder nature than his predecessors; as Veblen said: "There is perceptibly less of an imperious tone in Adam Smith's natural laws than in those of the contemporary French economists."<sup>13</sup> In his

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<sup>12</sup> The Place..., pp. 87-88.

<sup>13</sup> ibid., p. 112.

scheme the functioning of nature alone was insufficient; nature had to be accompanied by the real productive force, labor. It was by human self-seeking that general prosperity was achieved, and any errors would aright themselves "if interference with the natural order ceases."<sup>14</sup> This natural order was, therefore, a real underlying force (animism) affording man a "propensity" to act in conjunction with nature toward beneficent ends (teleology). Such self-seeking was, however, a subordinate feature to the over-spanning order of nature.

The earlier nineteenth-century economists were prone to the natural law premises, along with the Physiocrats and Smith. Storch's definition, for example, as quoted by Senior, read: "Political Economy is the Science of the natural laws which determine the prosperity of nations, that is to say, their wealth and civilization."<sup>15</sup> McCulloch referred to the "law of nature" and the "established order of things."<sup>16</sup>

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<sup>14</sup> ibid., p. 116.

<sup>15</sup> Senior, op. cit., p. 1.

<sup>16</sup> J. R. McCulloch, Esq., The Principles of Political Economy, with Some Inquiries Respecting their Application, 5th ed., (Adam and Charles Black, Edinburgh, 1864), p. 54. Original edition: (W & C. Tait, Edinburgh, 1825)

With the advent of utilitarianism and the earlier classical writers, the more metaphysical elements of the Physiocratic and Smithian economics were toned down. As the emphasis passed from the natural order to the pleasure-pain calculus, and full-fledged hedonism took sway, economics became more a question of maximizing monetary gain via the production and distribution process. The human element was subordinated to some deterministic mechanical sequence of events leading to this automatic maximization process. Human nature, consistently in search of maximum pleasure, became a mere constant in the equations and thus was in effect eliminated from the formulas, wherein investment and wealth replaced labor and production.<sup>17</sup> Hedonism was, therefore, the automatic, teleological force, which assured maximum beneficial effects.

For Jevons the "determining principle was purely Benthamite."<sup>18</sup> The controlling factor was: "Will a measure increase the sum of happiness?" This made the directive force of economics the "calculus of human satisfactions."

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<sup>17</sup> cf. Veblen, The Place...., pp. 143-144.

<sup>18</sup> Wicksteed, op. cit., p. 206.

Veblen saw a radical change with the writings of John Stuart Mill and Cairnes. Here the philosophy of economics, and consequently of economic law, forsook the automatic hedonism of Bentham for a more sophisticated, behavioristic version. Brought back was economic man's discretionary ability, and reciprocal demand became the focal point of a new goal-oriented economic process. No longer was it clear that mankind, now functional and no longer inert, when left to its own voluntary choices, would automatically select the most beneficent path to utility.

Thus a kind of automatic behaviorism was introduced as the motor force in economics. It was not based primarily on natural law; neither was it dependent on compulsion, but rather, as Cairnes noted, on "considerations of practical utility."<sup>19</sup> Cairnes described this force as self-interest:

A "law" in Political Economy does not mean either legal coercion or physical compulsion, or yet moral obligation; nor does the "determination" expressed in an economic law

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<sup>19</sup> Cairnes, Some Leading Principles...., p. 270.

mean the necessary realization of certain results independently of the human will. What an economic law asserts is, not that men must do so and so whether they like it or not, but that in given circumstances they will like to do so and so; that their self interest or other feelings will lead them to this result.<sup>20</sup>

Edgeworth combined utility with a divine animism.

"There is," he observed, "dimly discerned the Divine idea of a power tending to the greatest possible quantity of happiness." <sup>21</sup>

Mathematician Cournot made maximization the controlling element; he said:

To lay the foundations of the theory of exchangeable values, we shall not accompany most speculative writers back to the cradle of the human race.... We shall invoke but a single axiom, or, if you prefer, make but a single hypothesis, i.e., that each one seeks to derive the greatest possible value from his goods or his labour." <sup>22</sup>

Modern mathematical economists follow the maximization theme. They emphasize the limited amount of resources,

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<sup>20</sup> ibid., pp. 184-185.

<sup>21</sup> F. Y. Edgeworth, Mathematical Psychics: An Essay on the Application of Mathematics to the Moral Sciences (C. Kegan Paul and Co., London, 1881), pp. 11-12.

<sup>22</sup> Augustin Cournot, Researches into the Mathematical Principles of the Theory of Wealth, trans. Nathaniel T. Bacon (The Macmillan Company, New York, 1897), p. 44. Original edition: 1838.



goods, and services available to an economy, which quantities they seek to maximize.<sup>23</sup>

We have thus seen that economics must have some unifying principle or force, if it is to be capable to sustain laws that are more substantial than the weak variety proposed in the last chapter. This force has taken forms as varied as the natural law, classical hedonism, or the modern maximization assumption. In practice, these might have been expressed as invisible hand, behaviorism, self-interest, or rationalization. Whatever it might be, some such principle, in conjunction with the assumption that man is somehow consistent and unchanging in nature, is necessary to provide the basis for a structure of normal laws.

In addition to their belief in some force that directs economic activity, these economists held to the belief in the existence of a world of normal or equilibrium values distinct from the world of everyday experience. They separated the natural (or real or normal) from the actual

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James M. Henderson and Richard E. Quandt, Microeconomic Theory, A Mathematical Approach (McGraw-Hill Book Company, Inc., New York, 1958), p. 1.

or the factual, thereby affirming the distinct existence of an all-pervasive world of normality. In this view there were two separate domains of prices, the market and the normal; and it was precisely in competitive markets that the two were equated, and only there. Any deviation from the normal was considered an erratic disturbance and dismissed as being inconsequential.

A normal value in this conception was not just an arithmetical average of historical data, or some hypothetical population mean; but rather it was a value seemingly with a real and separate existence of its own, that seemed to draw the world of actuality towards itself, as towards an ideal norm.

Smith and Ricardo had spoken of a "natural" value. Mill interpreted this value as a point:

.....about which the value oscillates, and to which it always tends to return; the centre value, toward which, as Adam Smith expresses it, the market value of a thing is constantly gravitating; and any deviation from which is but a temporary irregularity which, the moment it exists, sets forces in motion tending to correct it.<sup>24</sup>

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<sup>24</sup>John Stuart Mill, Principles....., Ashley Edition, op. cit., p. 453.

This point, said Mill, is the center of all oscillations, much as the sea level is the theoretical norm for the ocean. Marshall repeated the same thought.

Cairnes also emphasized "normal or usual value," "a centre about which market values gravitate,"<sup>25</sup> But though he stated that normal value meant some average of market values, nevertheless he distinguished carefully between the separate movements of both normal prices (which depended on cost of production or reciprocal demand) and market prices (which depended on supply and demand).<sup>26</sup>

Bates Clark considered the values found in the stationary state to be normal, and to be equivalent to "natural" or "static" values.<sup>27</sup> He thus explained his law of natural value:

This tendency towards cost prices..... establishes a further law, that of "natural value" and this it is that fixes the standard to which, in the long run, market values, as adjusted by supply and demand, tend to conform.<sup>28</sup>

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<sup>25</sup> Some Leading Principles....., p. 93, p. 43.

<sup>26</sup> ibid., pp. 135-136.

<sup>27</sup> The Distribution....., p. 29.

<sup>28</sup> Essentials....., p. 94.

Marshall's normal value "is the average value which economic forces would bring about if the general conditions of life were stationary for a run of time long enough to enable them all to work out their full effect." <sup>29</sup>

Thus, the concept of a normal state of affairs, though distinct in the case of each author, has been a further sign of the attractiveness of lawlike regularities to these economists. Such a concept of normality is much deeper than the simple notion of averages held by the weak law economists.

With Neville Keynes, however, the idea of "laws of normal value" had been weakened to signify definitely not some value apart from reality, but a value theoretically determined by the action of only the principal forces at play in the economy. Market values, instead, reflected the impact of not only the principal forces, but of the totality of such forces. He stated:

In the process of arriving at these laws, account is professedly taken only of the comparatively universal and permanent forces in operation, leaving on one side the varying influence exerted by the local and temporary causes that may happen also to act at any given moment. <sup>30</sup>

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<sup>29</sup> op. cit., p. 347.

<sup>30</sup> op. cit., p. 224.

He also maintained that hypothetical values "will nevertheless be realized, if instances are taken in the mass and if the general conditions of economic life remain unchanged for a sufficiently long period of time." <sup>31</sup>

Modern economists substitute the idea of normal value with that of equilibrium, especially of stable equilibrium. For Marshall, equilibrium values were equivalent to normal values, at least in the long run.<sup>32</sup> Since Walras, mathematical economists have emphasized the equilibrium concept. Even the indifference curve and the isoquant have an aura of normality about them, at least for the period of their theoretical validity, however instantaneous.

These concepts of a real normality differ from the econometric means of the weak laws. In the econometric version, the sample mean is but an estimate of the "normal," the latter being unknowable and unreachable, constantly shifting with each sample taken. Not so with the normal concept; the economy does actually tend towards the normal values, and, ceteris paribus, the difference between market and normal would be really obliterated. All of this is an

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<sup>31</sup> id., see Marshall, op. cit., p. 34.

<sup>32</sup> op. cit., p. 347.

indication of some underlying reality beneath the appearances of the market.

We will later see that the laws proposed by these economists will have their roots in this conception of a normal or equilibrium world. And it will be precisely this philosophical assumption that chiefly separates the normal law economists from their colleagues.

The Nature of Economic Science. A second category of assumptions pertains to the nature of economic science in the mind of the normal law economists. We are certainly not in search of any uniform definition to be found within the group; rather, it is our object to indicate how the various concepts adopted have a potential bearing on the qualities of the relationships these economists have proposed. Precisely, it is contended here that the several definitions adopted are of such a nature as to preclude the possibility of absolute law. They are Type A definitions, in Fraser's sense that they deal with a "department" of human activity.<sup>33</sup>

The Physiocrats were limited to the ordre physique, Smith to the causes of wealth. Most of the older economists, as Say, Senior or Cairnes, played on the theme of "the nature of Wealth and the laws of its production and distribution."<sup>34</sup> Bates Clark refined this theme as follows: "the creation and use of wealth are everywhere

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<sup>33</sup>L. M. Fraser, Economic Thought and Language (A. & C. Black, Ltd., London, 1937), pp. 21-42.

<sup>34</sup>Principles....., Ashley edition, op. cit., p. 1.

governed by natural laws, and these, as discovered and stated, constitute the science of Economics."<sup>35</sup>

Later authors have generally preferred a maximization theme, as, for example Jevons, for whom to economize was "to maximize happiness by purchasing pleasure." Modern mathematical economists emphasize the maximization of purchasable goods and services, as determined by indifference or revealed preference analysis. Thus, for all its impressive achievements, economic theory in this sense has not been able to offer us generalizations that are truly universal. A certain segment of human endeavor has been chained off and restrained outside the arena by a ceteris paribus assumption. As Bagehot noted:

The boundaries of this sort of Political Economy are arbitrary, and might be fixed here or there. But this is already implied when it is said that Political Economy is an abstract science. All abstractions are arbitrary; they are more or less convenient fictions made by the mind for its own purposes. An abstract idea means a concrete fact or set of facts minus something thrown away. The fact or set of facts was made by nature; but how much you will throw aside of them and how much you will keep for consideration you settle for yourself.<sup>36</sup>

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<sup>35</sup> Essentials....., p. 1.

<sup>36</sup> Walter Bagehot, Economic Studies, ed. Richard Holt Hulton, reprint from 1898 edition (August M. Kelley Publishers, Clifton, 1973), pp. 23-24. Original edition: (Longmans, Green, & Company, London, 1880.)



It is that "something thrown away" that distinguishes these normal or ceteris paribus laws. Do not the mathematical economists, for example, sacrifice all that is not quantifiable? We are left to deal with a subsector of life; and the generalizations of that subsector, being a restriction to the merely "economic" subset of things, are insufficient to describe human activity in all its plenitude.<sup>37</sup> For a complete treatment of the conceptual definitions of economics, reference is again made to Kirzner.<sup>38</sup>

The point that is of interest to us is that somehow or other, in all the views held by these economists, a certain part of human interests and endeavors is excluded from the science. Consideration is limited to some aspect of wealth, or something monetary and maximizable;

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<sup>37</sup> Cairnes, The Character....., pp. 28-29, held a different view; he felt that by holding economics to the production and distribution of wealth, rather than expanding it to include larger social relations, a more consistent meaning of law could be derived than would be the case, had the larger social antagonisms of the different classes of society been taken into account.

<sup>38</sup> op. cit.

excluded are metaeconomic factors and non-pecuniary interests. Whenever a man desires fame rather than fortune, these theories must run to the ceteris paribus cloakroom and deposit another assumption that will exclude this aberration. How can the non-commercial element of human life be measured by the monetary calculus?

Knight has indicated that there was an element missing in conventional economics:

If the term economic were to be interpreted in the literal sense, as covering all behaviour which involves the adaptation of means to ends and the "economizing" of means in order to maximize ends, then economics would be an almost all-inclusive science....

He added that "the social organization of production and distribution"<sup>39</sup> was the exclusive concern of theoretical economics.

The upshot of all this will be seen in the normal laws that these economists have proposed. They lacked something to give them that generality for which these authors have been searching. Thus Stuart Mill limited

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<sup>39</sup>"The Limitations of Scientific Method in Economics", The Ethics....., pp. 139-140. Reprinted from Tugwell, op. cit.

economic law to phenomena that "depend upon the pursuit of wealth, or upon.....aversion to labor, and desire of the present enjoyment of costly indulgences."<sup>40</sup> In Marshall, economic laws were restricted, as well, to conduct measurable in money. "Economic laws or statements of economic tendencies," he wrote, "are those social laws which relate to branches of conduct in which the strength of the motives chiefly concerned can be measured by a money price."<sup>41</sup>

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<sup>40</sup> J. N. Keynes, op. cit., pp. 116-117.

<sup>41</sup> op. cit., p. 33.

Economic assumptions. To penetrate more deeply into the rationale of the normal law economists, we will also examine briefly their starting postulates and assumptions. These postulates are often a repetition of what we have described as the unifying force in economics; they can also serve as major premises in the logical argument, and are often themselves classified as law.

We have already seen the postulates proposed by Nassau Senior.<sup>42</sup> Cairnes constructed his system upon four similar assumptions: the universal desire for physical well-being and wealth; the aim of all people to maximize their wealth; the human response to the laws of population; and finally the physical productivity of the soil.<sup>43</sup> Johnson, on the other hand, offered three groupings of assumptions: tendencies toward increasing or decreasing returns; two sets of "psychological" data - the law of demand and the law of supply, as well as the

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<sup>42</sup> cf. p. 78.

<sup>43</sup> The Character....., pp. 54-60; pp. 72-81; cf. J.N. Keynes, op. cit., pp. 243-245.

universal desire for material well-being; and finally, two sociological premises - the conditions of both freedom and of restraint under which economic activities occur.<sup>44</sup>

These general assumptions of hedonism, maximization, or diminishing returns, are favorable to a lawlike epistemology, in that they offer, in the minds of these authors, a solid base from which to deduce valid propositions.

Other assumptions restricted the scope of the generalizations deduced from them. The free competition assumption was the most noted among these; it automatically excluded from the ambit of law non-competitive situations, especially when the assumption was strengthened to perfect competition.

Free competition often appeared as a sine qua non.

For example, Stuart Mill noted:

So far as rents, profits, wages, prices, are determined by competition, laws may be assigned to them. Assume competition to be their exclusive regulator, and principles of broad generality and scientific precision may be laid down, according to which they will be regulated.<sup>45</sup>

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<sup>44</sup> W. E. Johnson, "Method of Political Economy" Dictionary of Political Economy, Palgrave, Sir R.H. (Ed.), Vol. II, p. 739.

<sup>45</sup> Principles....., Ashley edition, op. cit., p. 242.

Cairnes added this proviso to his law of exchange: "only so far as there exists free competition among their producers."<sup>46</sup> And Bates Clark: "if competition were

absolutely free..."<sup>47</sup> Walras, as we have seen, introduced competition into the definition of economics. "Pure economics," he wrote, "is, in essence, the theory of the determination of prices under a hypothetical regime of perfectly free competition."<sup>48</sup> Edgeworth affirmed this

as follows:

If competition is found wanting, not only the regularity of law, but even the impartiality of chance - the throw of a die loaded with villainy - economics would be indeed a "dismal science," and the reverence for competition would be no more.<sup>49</sup>

So also Hicks,<sup>50</sup> Henderson and Quandt,<sup>51</sup> and many others.

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<sup>46</sup> Some Leading Principles....., p. 72.

<sup>47</sup> Essentials....., p. 75.

<sup>48</sup> Leon Walras, op. cit., p. 40.

<sup>49</sup> F. Y. Edgeworth, Mathematical Psychics: An essay on the Application of Mathematics to the Moral Sciences (C. Kegan Paul and Co., London, 1881), p. 50.

<sup>50</sup> Value..., p. 6. Hicks also observed that "a general abandonment of the assumption of perfect competition..... must have very destructive consequences for economic theory. Under monopoly the stability conditions become indeterminate; and the basis on which economic laws can be constructed is therefore shorn away." See also pp. 83-84.

<sup>51</sup> op. cit., p. 86.

Another restrictive assumption frequently applied by these economists was the catchall ceteris paribus, which severely limited the applicability of many laws. See Walras,<sup>52</sup> Bates Clark,<sup>53</sup> Marshall, to name a few. Neville Keynes stated the importance of ceteris paribus in this way:

In all cases where the deductive method is used, it is present more or less. For in the deductive investigation of the economic consequences of any particular circumstance or any particular change, the absence of interfering agencies and of concurrent but independent changes is of necessity assumed.<sup>54</sup>

Modern mathematical economists usually base their maximization postulates on "behavioral assumptions or postulates which define the set of operations by which the values of the variables are determined."<sup>55</sup> In consumer theory "the postulate of rationality is the customary point of departure."<sup>56</sup> In production theory it is the maximization of profit by the rational entrepreneur. The mathematicians also make basic (but unreal) assumptions

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<sup>52</sup> op. cit., p. 260.

<sup>53</sup> Essentials....., p. 75.

<sup>54</sup> op. cit., p. 218.

<sup>55</sup> Henderson and Quandt, op. cit., p. 1.

<sup>56</sup> ibid., p. 6; p. 42; p. 86.

about the nature of the functional forms they employ.

Curves must be continuous and differentiable - there

can be no "oddities." In this connection Hicks remarked:

...most of the 'laws' of pure economic theory can be looked at in this sort of way. Pure economics has a remarkable way of producing rabbits out of a hat - apparently a priori propositions which apparently refer to reality. It is fascinating to discover how the rabbits got in; for those of us who do not believe in magic must be convinced that they got in somehow.<sup>57</sup>

They also make assumptions about the existence of stable equilibrium conditions and of consumer preference scales.<sup>58</sup>

In retrospect, the normal law economists have offered us certain preconditions in their philosophical makeup that have inclined them to favor lawlike generalizations. They are clearly critical rationalists; they posit a unifying force on which to ground their speculations, whether it be natural law, utilitarianism, or just plain "forces." Their penchant for normal values, equilibria, and geometry reinforce this. Even the array of indifference and isoquant curves imply some sort of regularity. Their system of postulates and assumptions tie us to a certain regularity.

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<sup>57</sup>Value...., p. 23.

<sup>58</sup> ibid., p. 62.



On the other hand, this regularity is weakened by their admittedly unreal assumptions of perfect competition and ceteris paribus, which forever force them to explain away the "irregular" facts of the real world.

We now proceed to analyze what these normal economists meant by economic law.

The Meaning of Law. Now that it has been shown that the normal law economists have postulated a substratum of philosophy, assumption, and disposition amenable to law, the next question before us is just what this concept of normal law is supposed to mean.

It is clear from the very outset that we are dealing with two separate meanings of the term, always keeping in mind that we have excluded mental and moral concepts of law from the main focus of the analysis.<sup>59</sup> The first meaning is an expression of the law of nature or of some similar overall force that seemingly directs all economic action; the second considers laws as a scientific generalization. In the first sense law is envisioned as pervading all of economic reality, much as the air does the atmosphere. Malthus, as an example, spoke of the "imperious, all-pervading law of nature."<sup>60</sup> In the same vein Wagner referred to self interest as "a 'natural' and universal law."<sup>61</sup>

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<sup>59</sup> cf. Chapter II, pp. 29-34.

<sup>60</sup> McCulloch, op. cit., p. 169.

<sup>61</sup> J.N. Keynes, op. cit., p. 126.

Veblen assigned certain characteristics to this class of all-penetrating law. Since reality, in the view of some of these authors, was somehow guided by some form of deity, "invisible hand," or "nature," it was as though law was personified as an active agent, directing the march of events. At times reality was pictured as an organism, whose vital functions were controlled by law. This was called an "animistic" view of the world.

Then, again, since law seemed to direct all events toward some definite predetermined state (as normality or equilibrium, for example), this view was classified as teleological. All economic activity seemed, in this view, to be directed toward a definite goal.

This was causal activity, in the sense that reality was activated by some sort of inner causation, which produces the equilibria required of the system. This is not the causality of the chemist in the laboratory, but that of some necessary inner working of the system itself.

When Bates Clark could say that "there is a deep acting natural law at work amid the confusing struggles

of the labor market,"<sup>62</sup> one can sense this animistic, causative process in operation. Veblen described the inner philosophy of these laws as follows:

The ultimate laws and principles which they formulated were laws of the normal or the natural, according to a preconception regarding the ends to which, in the nature of things, all things tend. In effect, this preconception imputes to things a tendency to work out what the instructed common sense of the time accepts as the adequate or worthy end of human effort. It is a projection of the accepted ideal of conduct. This ideal of conduct is made to serve as a canon of truth, to the extent that the investigator contents himself with an appeal to its legitimation for premises that run back of the facts with which he is immediately dealing, for the "controlling principles" that are conceived intangibly to underlie the process discussed, and for the "tendencies" that run beyond the situation as it lies before him.<sup>63</sup>

Veblen was, of course, critical of these views. The two normalized concepts of the "economic man," who automatically engaged in a maximization process; or of the "frictionless and beneficent competitive system," conformity to which "affords the test of absolute truth,"<sup>64</sup>

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<sup>62</sup>Distribution....., p. 2.

<sup>63</sup>The Place....., pp. 65-66. Reprint of: "Why is Economics Not an Evolutionary Science?" reprinted from Quarterly Journal of Economics (July, 1898), Vol. XII, pp. 373-397.

<sup>64</sup>"The Preconceptions....," The Place..., pp. 145-146.

were, to say the least, unreal. In no way could they be connected scientifically by mechanistic cause and effect with the events of the real world. They were merely relics of the natural order and had but "ceremonial" legitimacy.

At times there was no clear dividing line between the overarching natural law and the "scientific" laws that postulated the relationships between economic variables. Bates Clark, for example, showed us how production and wealth were controlled by a certain law, which seemed to partake of the characteristics of each of the two classes of law. He stated:

By reason of the fact that all are seeking to produce what they can in order that they may get what they can, there comes into operation an organic law which brings the groups and subgroups into a deliberate balance, in point of size and output, whereby the grand total of force that society commands is prevented from making too much of one product and too little of another and is made to do its utmost in getting a large sum total of wealth for the benefit of its various members.<sup>65</sup>

It is to be expected that economists would have used and confused both meanings of law in their writings. The use of law in the overall sense clearly suffered the

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<sup>65</sup> Essentials....., pp. 67-68, emphasis added.

disfavor of the positivist elements in the science, as they rejected the metaphysical implications of the animism, teleology, and causation implied in this concept. By early in the twentieth century, most vestiges of this form of law had disappeared. It is primarily the second classification of laws, the "scientific" laws that postulate economic relationships, with which we will be concerned and to which we now turn. No doubt, of course, much of the mythology relating to law was prompted by consideration of the overall natural law.

We turn now to the second concept of law, that of the scientific regularities, which these authors will claim are the laws of economics. The word scientific here is used in a general sense and not in a sense restricted to the natural sciences.

The first thing that attracts our attention is that we see little of the empirical or experimental formulations found in econometrics; there are no historical laws describing the details of particular epochs or particular national economies. We do not find the mechanical cause and effect laws of natural science. Instead, we are in a realm of theory quite remote from the empirical and the purely physical.

What then do these theoretical regularities mean?

In the first place they are propositions indicating some relationships between certain data called economic. According to Neville Keynes, a law was "an assertion respecting the actual relations of economic phenomena one to another."<sup>66</sup> Whereas for Knight, "the 'laws' of science are mere statements of dependable coexistences and sequences among events. The goal of scientific explanation is simply to formulate these laws in terms as general as possible."<sup>67</sup>

Veblen affirms that the nature of economic laws has evolved with the development of economics. The laws of the natural law economists were "canons of conduct governing nature," describing how man's actions might be conducted in some optimum fashion. True, they might have been disobeyed by man; but were that the case, the highest well-being of mankind would have been thwarted. Compliance with these "canons" had a certain ethical ring about them, for law and justice and right were all synonymous. In line with the metaphysical conceptions

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<sup>66</sup> op. cit., p. 221.

<sup>67</sup> "Economic Psychology and the Value Problem," The Ethics, p. 81. Reprinted from The Quarterly Journal of Economics (May, 1925), Vol. XXXIX, pp. 372-409.

of the natural law, these laws were conditions "imposed upon human conduct in order to reach the ordained goal of supreme human welfare."<sup>68</sup> The early law of association, for example, was in this view an indication to man as to how best to conduct himself for optimum benefits in trade.

With the advent of the utilitarian period, Veblen held that the human element in law was for a time deemphasized. Man, who was now envisioned as an automatic pursuer of maximum pleasure, became somewhat of a constant element that cancels out from both sides of an equation. Law was thereby dehumanized, the center of interest turning to the material aspects of economics. Veblen showed the effect of this switch to hedonism upon economic laws, which now became laws of wealth:

Human nature being eliminated, as being a constant intermediate term, and all institutional features of the situation being also eliminated (as being similar constants under that natural or consummate pecuniary regime with which the pure theory is concerned), the laws of the phenomena of wealth may be formulated in terms of the remaining factors. These factors are the vendible items that men handle in the processes of production and distribution; and economic laws come, therefore, to be expressions

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<sup>68</sup> Veblen, The Place....., p. 90.



of the algebraic relations subsisting between the various elements of wealth and investment, - capital, labor, land, supply and demand of one and the other, profits, interest, wages.<sup>69</sup>

Thus we were left for a time with monetary equations, with the human valuational and motivational assumptions and nexuses merely implied. Such was Torrens's law regulating the rate of profit, which was a tendency "to bring down the prices of all commodities to such a level that the rate of profit in the several branches of industry shall be nearly equal."<sup>70</sup>

Under Stuart Mill and Cairnes the law of nature was eroding. Hitherto, economic laws were a priori hypotheses; now whatever smacked of the intuitive or the teleological could not be admitted into science. Banned were any generalizations with ethical implications or any organic relationships. Any trace of metaphysical animism was suspect. The only class of causality allowed was that, derived from Hume, which recognized sequential or similar events, those which mechanically occur with a certain regularity. All metaphysical causality (whereby certain causal "forces" produce effects) was rejected. As Veblen

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<sup>69</sup> ibid. pp. 143-144.

<sup>70</sup> op. cit., p. 175, pp. 212-213.

noted:

With a fine sense of truth they saw that the notion of causal continuity, as a premise of scientific generalisation, is a metaphysical postulate; and they avoided its treacherous ground by denying it, and construing causal sequence to mean uniformity of coexistences and successions simply.<sup>71</sup>

This was the positivistic doctrine of "associationist psychology."<sup>72</sup>

These authors would then call their laws "empirical generalizations," even though they had been deduced as they always were from a priori principles, which were now described as coming from experience. The new laws reflected a "colorless" normality, with no implications of the optimum or the just.

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<sup>71</sup> The Place....., pp. 161-162.

<sup>72</sup> This doctrine held that knowledge was some form of association of sensory experiences. It was thus allied with positivism. Following Locke and Hume, David Hartley (1705-57) was its originator. The principal associationist economists were the two Mills and Herbert Spencer (1820-1903). cf. "Associationism," New Catholic Encyclopedia, 1967, Vol. I, p. 969; and "Association, Mental," Encyclopaedia Britannica, 1973, Vol. II, pp. 630-632.

They often emphasized the factual nature of the relationships. Say, for example, had already called theory "the knowledge of the laws which connect effects with their causes, or facts with facts,"<sup>73</sup> For Cairnes, laws could really only consist in "the constancy of the relation between facts and the conditions which produce them."<sup>74</sup> This has been made more explicit by Stuart Mill, when referring to "the various economic facts, of which we have been tracing the laws, and especially on wages, profits, rents, values, and prices."<sup>75</sup> Or again, Marshall later said: "The study of theory must go hand in hand with that of facts."<sup>76</sup>

But these facts were not mere physical facts. True, economics often used physical data, imported so to speak from other sciences, as part of its assumptions. But economics must include something more than the mere law

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<sup>73</sup> op. cit., p. xxi.

<sup>74</sup> Some Leading Principles....., p. 98.

<sup>75</sup> Principles....., Laughlin edition, op. cit., p. 475.

<sup>76</sup> op. cit., p. 39.

of physical nature; it must in some way be concerned with the human element in any particular fact. As Neville Keynes noted: "An economic fact is not a phenomenon of the natural, material world. It originates when in some way man, as an intelligent being with free will, enters actively into cooperation with natural phenomena, for the purpose of satisfying human needs."<sup>77</sup> Thus it was "voluntary human action,"<sup>78</sup> in the phrase of Keynes, which differentiated economic from physical laws.

In fact, though the law of diminishing returns has often been considered a physical law, it does refer to man's relationship with production. Its relevance for economics, said Keynes, consists in its relationship to the division of labor and the processes of the creation and exchange of wealth.<sup>79</sup> In this connection Hayek notes, in the same vein, that "all the 'physical

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<sup>77</sup> op. cit., p. 86, quoting Schönberg, from Handbuch der Politischen Oekonomie, Die Volkswirtschaft, #13.

<sup>78</sup> id.

<sup>79</sup> Cairnes, Some Leading Principles....., pp. 117-119; see also J. Neville Keynes, op. cit. pp. 85-86.

laws of production' which we meet, e.g. in economics, are not physical laws in the sense of the physical sciences but people's beliefs about what they can do."<sup>80</sup> It is interesting to note at this point that in modern writings<sup>81</sup> the law of diminishing returns is often the sole survivor of all the economic laws; seemingly, the human ingredient has all but disappeared from the concept of law in some of these texts.

Thus various authors began to reintroduce man, man's nature, or mind and psychology, directly into the lawlike statement. James Mill had spoken of "laws of human nature."<sup>82</sup> His son wrote of "general laws of Psychology" which are "laws of formation of character,"<sup>83</sup> and described economics as "the science relating to the moral or psychological laws of the production and distribution of wealth."<sup>84</sup> For him law reflected a behavioristic mechanical response on the part of man.

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<sup>80</sup>The Counter-Revolution....., p. 31.

<sup>81</sup>cf. Joan Robinson, Economics of Imperfect Competition (Macmillan & Co., Ltd., London, 1933).

<sup>82</sup>op. cit., p. 37, p. 186.

<sup>83</sup>John Stuart Mill, A System of Logic (London, 1943), Book VI, Chapters II and V; quoted by Lowe, op. cit., p. 68.

<sup>84</sup>J. N. Keynes, op. cit., p.90 .

Both Senior and Mill contrasted the laws of matter and the laws of mind, holding that economics is based on the latter. Cairnes, however, took both to task, believing that the science derived from physical and mental origins; thus its laws were "neither mental nor physical laws, though they are dependent.....equally on the laws of matter and on those of mind."<sup>85</sup> The law of wages, for example, resulted from the physical productiveness of industry as well as the psychological state of the workman involved.

For Frank Knight the human element manifested itself more actively in the form of positive response on the part of economic man. Law is the "human response to situations." Law is conduct. "The economic man," Knight stated, "is the individual who obeys economic laws, which is merely to say that he obeys some laws of conduct, it being the task of science to find out what the laws are."<sup>86</sup> But these laws, he added, did not refer to the content of economic behavior, but rather to its form. Knight also rejected any form of behaviorism or of the scientific

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<sup>85</sup> The Character....., pp. 43-54, especially p. 48.

<sup>86</sup> "Ethics and the Economic Interpretation," The Ethics.....  
p. 35.

treatment of consciousness, because the content of human conduct was by no means uniform.

Veblen was in accord with Knight, considering that all economic laws became increasingly "laws of conduct," as the penumbra of the natural law passed away. However, these new laws were completely devoid of any implications of ethical approval or disapproval.

Thus we have seen the economists emphasizing the factual nature of the economic regularities, and as time goes on, giving more importance to the human element in law, even to the extent of classifying laws as expressions of human conduct.

At this point it is very important to qualify the nature of the economic facts under discussion, because we find the very same economists often emphasizing the approximate nature of economic laws, describing them more as tendencies than as facts. Cairnes called them tendencies, because they were only hypothetically and not absolutely true. This was due to the possible interference of disturbing factors, notwithstanding the fact that these laws were "logically deduced from indubitable facts of nature."<sup>87</sup>

Laughlin, interpreting Mill, has indicated how value tended to equate with cost:

So here again we see the nature of an economic law: the value may not often correspond with the cost of production, but there is a tendency in all values to conform to that of cost, and this tendency they irresistibly obey. A body possessing weight does not move downward under all circumstances (stones may be thrown upward), but the law of gravitation holds true, nevertheless.<sup>88</sup>

Marshall defined law as "a general proposition or statement of tendencies, more or less certain, more or less definite."<sup>89</sup> He also maintained that laws were hypothetical in the sense that they depended on certain assumed conditions, as ceteris paribus or normalcy.<sup>90</sup>

Finally, Frank Knight described a tendency as "what would happen under simplified conditions never realized but always more or less closely approached in practice."<sup>91</sup>

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<sup>88</sup> John Stuart Mill, Principles....., Laughlin edition, p. 262.

<sup>89</sup> op. cit., p. 33.

<sup>90</sup> op. cit., pp. 34-37.

<sup>91</sup> Risk....., p. 5.



Hutchison, who, as to be expected, is decidedly unfriendly to the term tendency, indicates its ambiguity:

But there is an ambiguity in speaking of a "tendency towards" a certain condition which is not always kept clear in this connection. It may mean that the position actually is regularly arrived at, or it may simply mean that although there is a "tendency" towards this position, this "tendency" is always counterbalanced by other "tendencies" which result in the position never being reached at all, or even necessarily approximated to. <sup>92</sup>

We will cover this point more in detail in speaking of the universality and necessity of laws. However, it is most important to see the affinity between the term "tendency" and the state of normality, towards which these economists, as we have seen, believed that all economic action aimed. Indeed, the two terms "tendency" and "normal" both related to this force in the economy which tended to bring all activity to equilibrium. For this reason, we have been labeling the laws posited by this group of economists as normal laws.

Veblen indicated the importance of these normal laws as follows:

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<sup>92</sup> Op. cit., p. 106; see also J. Neville Keynes, op. cit., pp. 16, 217-9; M.R. Cohen, op. cit., pp. 250-263.

The concrete premises from which proceeds the systematic knowledge of this generation of economists are certain very concise assumptions concerning human nature, and certain slightly less concise generalizations of physical fact, presumed to be mechanically empirical generalisations. These postulates afford the standard of normality. Whatever situation or course of events can be shown to express these postulates without mitigation is normal; and wherever a departure from this normal course of things occurs, it is due to disturbing causes, - that is to say, to causes not comprised in the main premises of the science, - and such departures are to be taken account of by way of qualification. Such departures and such qualification are constantly present in the facts to be handled by the science; but, being not congruous with the underlying postulates, they have no place in the body of the science. The laws of the science, that which makes up the economist's theoretical knowledge, are laws of the normal case. The normal case does not occur in concrete fact. These laws, are, therefore, in Cairnes's terminology, "hypothetical" truths; and the science is a "hypothetical" science. They apply to concrete facts only as the facts are interpreted and abstracted from, in the light of the underlying postulates. The science is, therefore, a theory of the normal case, a discussion of the concrete facts of life in respect of their degree of approximation to the normal case. That is to say, it is a taxonomic science. ....But the great truths or laws of the science remain hypothetical laws; and the test of scientific reality is congruence with the hypothetical laws, not coincidence with matter-of-fact events.<sup>93</sup>

There remain a few concluding points on the scope of economic laws and some distinctions that some of the economists have made.

Stuart Mill, for example, wanted to exclude both consumption and distribution from economic laws. Keynes felt that consumption was more of a "premiss" of economics rather than an economic law "on a par with the laws of production, distribution, and exchange."<sup>94</sup> Mill did exclude the laws of distribution, but in so doing did not reduce the lawbound nature of economic theory, because he maintained that theory is subject to the consequences of any political decision made. While, he said, "the laws and conditions of the Production of wealth partake of the character of physical truths," it was also true that "the distribution of wealth, therefore, depends on the laws and customs of society." This did not mean, however, that there was no law in distribution. Even though it depended on social arrangements, distribution was subject to the laws that followed in the wake of these arrangements. He was forced to conclude: "We have here to consider, not the causes, but the consequences, of the rules

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<sup>94</sup> J. Neville Keynes, op. cit., p. 111.

according to which wealth may be distributed. Those, at least, are as little arbitrary, and have as much the character of physical laws, as the laws of production."<sup>95</sup>

Several economists distinguished various classes of economic laws. Bates Clark, for example, differentiated between those that related man to physical nature and those social laws that regulated man's dealings with man.<sup>96</sup> Neville Keynes indicated this social nature of law, showing how economic laws "are not simple laws of human nature, but laws of complex social facts resulting from simple laws of human nature."<sup>97</sup> Thus Cairnes had used the law of rent to illustrate how a complex system of distribution developed from the self interest of tenants and landlords.

Bates Clark also distinguished between general laws, which applied unrestrictedly to all levels of economic development, and special laws which applied to advanced economies.<sup>98</sup> He also spoke of simple laws of isolated

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<sup>95</sup> Principles....., Ashley edition, op. cit., pp. 199-200.

<sup>96</sup> Essentials....., p. 59.

<sup>97</sup> op. cit., p. 89.

<sup>98</sup> Essentials....., p. 61.

societies and social laws which reflected man's traffic with and dependence upon other men.<sup>99</sup>

Finally, a word about a distinction that receives frequent attention in the literature, that of static versus dynamic laws. Spurred on by the success of the Darwinian concept, the economists also were looking for laws that not merely described the status quo, but rather would explore the path of a moving economy.

Bates Clark, who had promised eventually to write a book of dynamic laws,<sup>100</sup> made this distinction between the two:

Static laws furnish the natural standards to which the incomes of economic groups and those of laborers and capitalists within them tend to conform. Dynamic laws, on the other hand, account, first, for the variations of actual incomes from these natural standards; and secondly, for the slow and steady change that, as time progresses, is taking place in the standards themselves.<sup>101</sup>

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<sup>99</sup> ibid, p. 62.

<sup>100</sup> Clark considered his book on distribution as the theory of static law. When he later wrote the Essentials of Economic Theory, it was meant to "offer a brief and provisional statement of the more general laws of progress." He never did write his promised volume on Economic Dynamics.

<sup>101</sup> Distribution....., p. 36; cf. J.N.Keynes, op.cit., pp.145-9.

Clark never succeeded in his project, nor have any others in this group of economists, though much has later been written on dynamics by the profession. The concept of dynamics is the very opposite of normality. The latter tends to explain economic phenomena in terms of an equilibrium that is never quite reached; whereas the genetic or dynamic concept seeks to explain a process of immanent movement, with less emphasis on the initial or final points, as on the transition itself. Dynamics tries to uncover a set of qualitative changes, brought about by some "cumulative causal sequence," rather than the quantitative variations with which traditional economics has mostly been concerned. The project has been taken up by other hands, but not by those who can be classified as normal lawmen.

Veblen found in the orthodox laws a "concluded system," not open to dynamic changes. The penchant for normality and equilibrium, an offspring of natural law, precluded the possibility of developmental laws. The classical system was, therefore, as taxonomic as old-fashioned biology and chemistry were. Even when they were meant to be dynamic, these laws merely limited the "range of variation" and told us nothing about the

actual process or path of development.

Whether we are concerned with an equilibrium situation or one bursting out of equilibrium, Veblen noted:

....the economic laws are, in the main, laws of the limits within which economic action of a given purpose runs. They are theorems as to the limits which the economic (commonly the pecuniary) interest imposes upon the range of activities to which the other life interests of men incite, rather than theorems as to the manner and degree in which the economic interest creatively shapes the general scheme of life.<sup>102</sup>

In no way has it been possible to present any single concept of what economic law has meant to these theorists. Often one and the same author, like Stuart Mill, or Cairnes, will emphasize various aspects of law. At one time they would speak of the physical or the psychological components, at another of the customs of society; at one moment they emphasized facts, at another tendencies or hypothetical facts. At times we found included the enjoyment of wealth, and excluded the consumption of wealth.

With much greater reason were there to be found differences between the various economists. Some spoke of the benefits to be drawn from self-interest; others of the misery that resulted from some inexorable law of

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<sup>102</sup>The Place....., p. 177.

nature. Some emphasize the "simple and obvious system," others the complexities of the system.

It seems that all, nevertheless, believed that they were dealing with regularities which were not merely physical, but had to do with human nature or, especially, human conduct. Whether these laws were optimum, true, or ethical could be disputed. Whether any equilibrium was ever to be reached was debatable. But even though these laws were evidenced only to a greater or lesser degree in the realities of the external world, their authors were convinced they were describing an abiding, consistent normality that underlay all human activity. We proceed now to review the methods by which these laws were derived and the qualities inherent in them.



### Deduction and the Qualities of the Normal Laws

It is well known how the deductive process, as practiced by the classical economists, has been severely criticized by those outside the fold. Even within the group there have been caveats.

Malthus, for example, inveighed against "premature generalizations" and warned of the "limitations" that must be placed upon the propositions of economics.<sup>103</sup>

Say praised Smith's inductive methods.<sup>104</sup>

These normal law economists, however, attempted to build their work on a theoretical base that they felt would be impregnable against logical attack. Such a base would consist of certain intuitive postulates, considered as self-evident, or, as we have seen, even factual. From these they derived the laws of economics by logical deduction. It was felt that this firm foundation would be required for the strong principles that were to emerge. What other method was available?

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<sup>103</sup> Rev. Thomas R. Malthus, Principles of Political Economy, Considered with a View to their Practical Application, (Wells and Lilly, Boston, 1821), p. 5.

<sup>104</sup> op. cit., p. xxxix.

Bagehot, for example, asked how anyone could develop laws of banking by mere collection of statistics. "Scientific book-keeping, or collections of fact," he felt, "in themselves give no results ending in scientific laws."<sup>105</sup> Perhaps Stuart Mill can be considered the most difficult of the group to analyze. In his earlier work, Haney has told us, he regarded deduction as the unique method for the study of "first causes."<sup>106</sup> In later writings he adopted what he called the "Physical or Concrete Deductive Method," which involved starting from some "obvious psychological law"<sup>107</sup> and developing verifiable conclusions. He, Cairnes, and Jevons considered deduction as a reverse induction.

Jevons described this process:

its ultimate laws are known to us immediately by intuition, or, at any rate, they are furnished to us ready made by other mental and physical sciences. That every person will choose the greater apparent good; that human wants are more or less quickly satiated; that

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<sup>105</sup> cited by Laughlin, John Stuart Mill, Principles....., Laughlin edition, p. 33.

<sup>106</sup> "History.....," p. 473.

<sup>107</sup> Jevons, The Theory....., pp. 16-17.

prolonged labor becomes more and more painful, are a few of the simple inductions on which we can proceed to reason deductively with great confidence. From these axioms we can deduce the laws of Supply and Demand, the laws of that difficult conception, value, and all the intricate results of commerce, so far as data are available. The final agreement of our inferences with a posteriori observations ratifies our method.<sup>108</sup>

Without tarrying on this distinctive use of the terms induction and deduction, we can see this process clearly bears the imprint of logical deduction.

The fact is that "the economist starts with a knowledge of ultimate causes."<sup>109</sup> Thus he is much ahead of the physical scientist, who must develop his body of principles by a combination of induction and experiment. The economist is ready at once to begin with his premises, which "are the conclusions and proximate phenomena of other branches of knowledge." Cairnes continued:

They consist of such facts as the following: certain mental feelings and certain animal propensities in human beings; the physical conditions under which production takes place; political institutions; the state of industrial art."<sup>110</sup>

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108 ibid. p. 18.

109 Cairnes, The Character....., p. 87.

110 ibid., pp. 87-88.

Some of these principles depended on physical facts which could be verified; others were intuitive and "require no proof, depending directly upon consciousness, as, for example, the desire to obtain wealth at the least sacrifice."<sup>111</sup>

The mathematical economists follow the essentially same procedure, making their deductions from the initial postulates of modern utility theory and of indifference curves.

It is thus clear that this grouping of economists is armed with, as they see it, a formidable procedure to arrive at the generalizations that we have labeled as normal laws.

The first quality of the normal laws is that of universality.

Cairnes thus described the universality of the law of cost: "That law is ordinarily regarded as a principle governing value universally wherever it affects value at all," provided free competition exists in that particular market.<sup>112</sup>

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<sup>111</sup> ibid., p. 100; see also J.N.Keynes, op. cit., p. 173; Knight, Risk....., p. 8.

<sup>112</sup> Some Leading Principles....., p. 72.

Neville Keynes affirmed, in general: "Given the conditions, however, the laws may be stated categorically."<sup>113</sup>

Bates Clark has references passim to "the universal laws of economics." In discussing an assumed static state of the economy in years 1907 and 2007, he presaged: "The laws of equilibrium which produced the first static level [in 1907] would be identically the same as those which produced the second [in 2007]."<sup>114</sup> But Clark weakened this position when he contrasted those truths which related man to his environment with those which related man to man. These latter truths, he said: "are not universal, but are so general that they are exemplified in the economic life of every society, from the most primitive to the most highly civilized."<sup>115</sup>

Frank Knight, however, affirmed this quality in no uncertain terms, when he said that "there is a science of economics, a true and even exact science, which reaches laws as universal as those of mathematics and mechanics."<sup>116</sup>

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<sup>113</sup> op. cit., pp. 225-226.

<sup>114</sup> Essentials....., p. 556. ,

<sup>115</sup> ibid., p. 555.

<sup>116</sup> The Ethics....., p. 135.

He further noted that these universal laws did not depend on institutions. "There are general laws of production and consumption which hold good whatever specific things are thought of as wealth and whatever productive factors and processes in use."<sup>117</sup>

But what have these economic lawmen said when, in the opinion of their critics, their so-called universal laws did not hold, as when there were "disturbing influences" or friction? How could the epithet "universal" still be maintained?

Stuart Mill believed that the progress of mankind was the force that breaks the ironclad system. Thus when inferior land violated the pessimistic expectations of diminishing returns and surpassed the productivity of the better lands, he noted:

There is another agency, in habitual antagonism to the law of diminishing return from land; .....It is no other than the progress of civilization.<sup>118</sup>

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<sup>117</sup>ibid., p. 137.

<sup>118</sup>Principles....., Ashley edition, op. cit., p. 183; it is interesting to note how Laughlin edited Mill's statement in a very forceful manner. The parallel passage reads: This, however, does not prove that the law....does not exist, but only that there is some antagonizing principle at work. Such an agency there is, in habitual antagonism to the law of diminishing return from land,....It is no other than the progress of civilization. Principles....., Laughlin edition, op. cit., p. 142.

The law, he added can be suspended "by whatever adds to the general powers of mankind over nature."<sup>119</sup>

Bates Clark attributed such breakouts either to the functioning of dynamic laws or to a perversion of the system. Such perversion could be brought on by monopoly, bad government, wars, or anarchy. "Friction of this kind," he stated, "goes entirely with dynamics, and there is none of it in the static state." He found that corporations, in the form of a trust or "bogus" parent corporation, could pervert the action of economic laws. Practices which prohibit freedom of entry "vitiates the action of every law which depends on competition."<sup>120</sup> Or when conditions fall short of "productiveness, progress, and honesty," "the fact is mainly due to curtailments of freedom and interference with the competition which is the result of freedom."<sup>121</sup>

Cairnes held that there were "subordinate influences" which "intervene to disturb, and occasionally to reverse,

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<sup>119</sup>Principles....., Ashley edition, op. cit., p. 188.

<sup>120</sup>Essentials....., p. 394.

<sup>121</sup>ibid., p. 372.

the operation of the more powerful principles."<sup>122</sup> The economist must then dedicate himself to understand these influences; for example customs, inventions, or laws might modify the effect of the fundamental law.

When theory is confronted with fact, Knight said that "allowances" must be made "until the progress of the science reduces the phenomena to general laws and incorporates them into the deductive system."<sup>123</sup>

Even though the real world at times offered stubborn resistance to theory, all was not lost. There were built-in remedies to avert the malfunctioning of law.

In order to normalize disturbed conditions, Cairnes implied that there were laws in reverse that stabilize matters. For goods "systematically and continuously produced," he said, it does not matter that prices fluctuate, because "the variations do not occur at random, but obey a hidden principle; and tend to conform to a certain rule."<sup>124</sup> Even in international trade "deviations

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<sup>122</sup> The Character....., pp. 57-58.

<sup>123</sup> Risk....., p. 71.

<sup>124</sup> Some Leading Principles....., p. 43.



may, and do occur "in the proportions in which countries exchange products, but "forces are in existence which tend constantly to bring back the proportions to the normal line."<sup>125</sup> Even more emphatic was Bates Clark with respect to the normalizing action of a reversed law of wages. He observed:

Wages in the practical world, with all its radical changes and with all the friction that it offers to the action of pure law, actually hover about the static standards; and their variations from these are themselves subject to law.<sup>126</sup>

Obviously we do not have a uniform picture of the universality of the normal laws. At times even the same authors have taken contradictory positions, even to the extent of suggesting something more akin to a probability distribution than to a universal regularity. On average, however, they have conveyed the impression that beneath the turbulence of the real world of affairs, there is something that is really normal and universal; and that perhaps, with the advance of science, it will

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<sup>125</sup> ibid., p. 46.

<sup>126</sup> The Distribution....., p. 37, emphasis added.

become clear how the very departures from this normality themselves partake of the same lawlike regularity.

Are the classical laws causal? Malthus felt it very difficult to trace distinctly that circle of causes and effects in political economy.<sup>127</sup> Wagner considered that one of the major problems of economics was to explain the causes on which economic phenomena depended.<sup>128</sup> "The problem of the deductive method," according to Mill, "is to find the law of an effect from the laws of the different tendencies of which it is the joint result."<sup>129</sup> Cairnes likens the economic world to the physical:

Alike in the case of the physical and of the economic world, the facts we find existing are the results of causes, between which and them the connection is constant and invariable. It is, then, the constant relations exhibited in economic phenomena that we have in view when we speak of the laws of the phenomena of wealth; and in the exposition of these laws consists the science of Political Economy.<sup>130</sup>

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<sup>127</sup> Malthus, op. cit., p. 13.

<sup>128</sup> J. N. Keynes, op. cit., p. 37.

<sup>129</sup> ibid, p. 216.

<sup>130</sup> The Character....., p. 36.

Neville Keynes added that "economics is of necessity a science of cause and effect."<sup>131</sup>

The testimony appears unanimous in favor of a causal nexus in economic theory. But how do the economists of the normal laws explain this causality? John Stuart Mill proposed a variety of Humean causality which emphasized the fact that nature under many conditions will just continue to repeat itself. It is this invariable repetition of identical processes that is called causality. Thinkers following Mill understand this constant repetition (whenever the same preconditions are present) as an empirical datum, an inductive truth; never in the ancient sense of a deterministic process whereby each "effect" must be produced by some real "cause." Mill expressed his principle of the uniformity of nature as follows: "What happens once, will, under a sufficient degree of similarity of circumstances, happen again."<sup>132</sup> Or in the words of Laplace: "If a physical system is in the same mechanical state at any two distinct times, the system will go through the same evolutions subsequent

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<sup>131</sup> op. cit., p. 176.

<sup>132</sup> Nagel, op. cit., p. 317; cf. Kaufmann, op. cit., pp. 78-79.

to those times and will possess all properties in common at corresponding instants in that evolution."<sup>133</sup>

Such a theory as the above has been classified as "automatically repetitive," it has, incidentally, been criticized by philosophers for being merely a definition of "similar circumstances," and is thus, in positivistic terms, without "empirical content."

Veblen also commented upon the nature of causation for the natural law economists; for then he felt that causation was reflected in some kind of real animistic force. He wrote:

To the pre-Darwinian taxonomists the center of interest and attention, to which all scientific inquiry must legitimately converge, was the body of natural laws governing phenomena under the rule of causation. These natural laws were of the nature of rules of the game of causation.<sup>134</sup>

However, the metaphysical era had passed away by Veblen's time. In rejecting the traditional view, he opted for a new post-Darwinian view of reality, which would no longer consist of a conglomeration of beings, essences, and forces (metaphysical), but a reality which

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<sup>133</sup> Nagel, op. cit., p. 318.

<sup>134</sup> "The Evolution....," The Place....., p. 37.

consists in a process or series of events, each determined by one previous to it, and in turn, bringing on another consequent event. This was the causality of the scientist who investigates reality in sequence, blow by blow, one event after the other; not in accordance with the classical causation that portrays all events as conforming to some a priori pattern of law. In fact he stated, referring to his own day:

Modern science is ceasing to occupy itself with the natural laws - the codified rules of the game of causation - and is concerning itself wholly with what has taken place and is taking place.<sup>135</sup>

He seemed to be anticipating Friedman and Popper.

Frank Knight rejected any explanation depending on force and opted for a Humean explanation similar to Mill and Veblen.

He felt that it would be dogma to expect a mechanical law for every detail of conduct.<sup>136</sup> For Knight economic causality consisted in "dependable coexistences and sequences among events."<sup>137</sup>

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<sup>135</sup>op. cit., p. 38

<sup>136</sup>The Ethics....., pp. 98-99.

<sup>137</sup>ibid., p. 81.

We must conclude that, even in the case of the normal laws, the nature of economic causality has taken on a definitely Humean trend, emphasizing concomitance instead of real forces.

By asking whether the normal economic laws are necessary, one raises the question whether reality must be exactly the way it is, given the real world about us. Would it be possible for our deductive processes to produce different theorems from those we know? Or could the economic causes that we have discussed produce different results? For Knight "necessity" meant that we could not think of a world fundamentally different.

Here again the testimony is perhaps stronger than the reasoning which supports it. Say wrote that "the maxims of Political Economy are immutable."<sup>138</sup> Cairnes scoffed at a "bold attempt to override the laws of nature."<sup>139</sup> Laughlin spoke of the futility of a "quarrel with the laws of nature."<sup>140</sup> Neville Keynes, however

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<sup>138</sup> op. cit., p. 340.

<sup>139</sup> Some Leading Principles....., p. 388.

<sup>140</sup> John Stuart Mill, Principles....., Laughlin edition, p. 618.

admitted that "although the forces of competition may usually exert a preponderating influence in the economic world, they have not the universality and necessity which is here ascribed to them."<sup>141</sup>

We have found that the ultimate nexus between necessity and economic reality has been in sequence the law of nature, utilitarian hedonism, certain utility and maximization assumptions, or some other undefined forces. We have also seen that these are limited in application to but a certain aspect of human endeavors. With both the unification principle and its universal applicability both thinly proven, we can say that we have no solid grounds to call these normal laws necessary, although the epithet might apply to some individual laws and not to the generality.

Pareto was even more direct: "Laws," he stated, "imply no necessity. They are hypotheses serving to epitomize a more or less extensive number of facts and so serving only until superseded by better ones."<sup>142</sup>

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<sup>141</sup> op. cit., pp. 42-43.

<sup>142</sup> Vilfredo Pareto, The Mind and Society, p. 35.

Perhaps when an economist states that, for example: "the law of supply and demand is inflexible and constant; it cannot be abridged, suspended or terminated,"<sup>143</sup> we can accept the necessity that he implies, in more of a pragmatic sense than a metaphysical one. Or perhaps, again, merely the "tendency" to normality is "necessary", if not the visible effects of a law in operation. In any case, no strong case has been made for laws being necessary.

To inquire whether economic laws are true is to ask whether what they convey can afford us certitude. Will a particular law, under identical conditions, always apply? Here again, the verdict of the economists has not been unanimous.

Bagehot, along with others, observed that economic laws were not as certain as the mechanical laws of motion.<sup>144</sup> Cairnes stated that "the doctrines of Political Economy are to be understood as asserting, not what will take place, but would or what tends to take place, and in this sense only are they true."<sup>145</sup> Yet Wicksell, in speaking of the

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<sup>143</sup> David J. Schwartz, The Sick Man of the American Economy (Vantage Press, Inc., New York, 1962), p. 63.

<sup>144</sup> op. cit., pp. 17-18.

<sup>145</sup> The Character....., p. 69.



law of wages, noted: "As far as the preceding reasoning has taken us, this remarkable law may be regarded theoretically as infallible."<sup>146</sup>

Here again we find that some of the more ebullient expressions overstate the case for the normal laws, for once again, we are faced with the contrast between real world facts and a not completely airtight package of theory and assumption. "True" would generally be interpreted to mean "with one hundred percent probability," which certainly does not accord with the logical potential of arguments the economists have advanced. Knight has shown us how any law that depended on human error and judgment could not be true in any factual sense:

Insofar as behavior is directed by knowledge, or belief, which is affected by error, the fact is a "limitation" on predictability and scientific law. Economic laws describe what men try to do rather than what they actually do.....The ideal or limiting case of pure economic theory is impossible, self-contradictory; if behavior is perfectly economic it is not economic, but a purely mechanical response."<sup>147</sup>

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Knut Wicksell, Selected Papers on Economic Theory, (Harvard University Press, Cambridge, Mass., 1958), p. 95. See also Jevons, The Principles....., p. 197; Hicks, Value....., Vol. II, p. 32.

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"Immutable Law.....," p. 105.

At most we can say that the normal laws can be considered "true" in the limited sense of Cairnes that they represent merely a tendency, which may or may not materialize.

The same logic follows for the "verifiable" aspect of these laws. We have already had abundant evidence of the problems involved in explaining away instances of the non-applicability of these "universal" laws. One never knows for sure whether the immutable tendency has been contravened by other perhaps equally unverifiable, "abnormal" factors. Thus the normal law people are not in the same class with Friedman and the econometricians, for whom verification was an essential ingredient of the knowledge-gathering process. While many of them push verification (Mill, Cairnes, Jevons, Marshall, Knight), the latter is not, however, an essential factor in the logical processes they employ as normal law economists.

With reference to the quantifiability of these laws, suffice it to say that many of our normal law theorists have also been proponents of weak laws, which were definitely quantifiable. Thus Jevons, Marshall, Pareto, and Schultz have already been advocating weaker versions of quantitative regularities. Most of what remains can be considered as merely infighting within the normal

law group, as in the case of Cairnes's taking of Jevons to task for his assertion that economic laws "must be mathematical for the most part, because they deal with quantities and the relations of quantities."<sup>148</sup>

As to whether quantification of the equilibrium systems of Walras, Pareto, and Cassel, is possible, we leave that aside as not relevant to our discussion of laws.

In discussing the fact that the normal economic laws are teleological in character, we briefly note that this must follow from the fact they are human, and in however limited a sense, causal. There can be no "purely mechanical biology" in a science dedicated to human actions. As Knight said: "Some sort of teleology is inevitable in speaking of the phenomena of life."<sup>149</sup>

Our a priori expectation that the normal laws would evidence the strong qualities of law in an emphatic way has not proved to be fully accurate. Instead of being able to label these laws as universal, causal, necessary true, and teleological, we must qualify the first four

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<sup>148</sup> The Character....., p.v.

<sup>149</sup> The Ethics....., p. 120.

of these characteristics, something which on occasion our economists failed to do. Perhaps these conditions do always hold in the world of normality, unimpinged by the disturbances and frictions of the real non-competitive world. Thus laws can be called universal, not because they appear empirically in each and every concrete case, but because there is an underlying tendency towards their realization, which may be offset by any disequilibrating circumstance; a fact which empirical investigators would most likely have overlooked. Likewise, these laws might be causal, necessary, and true in the sense that they refer to normal or equilibrium conditions; but again other circumstances, perhaps equally causal, necessary, and true, might offset the operation of our laws.

Thus we affirm these characteristics in a guarded sense; however, it is clear that these laws have a far greater claim to these attributes than the weak laws of the previous chapter.

The Purpose of the Normal Laws

It is clear that the normal law economists have not manifested the exuberant interest in prediction or control of the economy that their weak law colleagues have done. Occasionally, one of these economists has emphasized the importance of law for policy making and forecasting, as when Knight indicated how the future could be explained by the past:

The essential idea in law is change of an interchanging character, that a thing does not change in 'essence' if it changes predictably, since it is true to nature which is to change in the same unchanging way.<sup>150</sup>

But he went on to warn us that the approximate nature of economic laws must be taken into account,<sup>151</sup> so that the appropriate corrections could be made. Cairnes had felt that disturbing factors impede the possibility of prediction. And Bates Clark explained the difficulty a magistrate of law would have in trying to apply in practice the law of final productivity:

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<sup>150</sup>The Ethics....., p. 110.

<sup>151</sup>Risk....., p. 11.

The law, however, cannot be rigorously applied by a tribunal which is fixing a rate of pay by its own conscious act. How can the judges directly ascertain how much a final increment of social labor produces? <sup>152</sup>

The fundamental function of law for these normal law economists has been to state and explain theory. We have seen already that a large number of them have actually equated economic science with its laws. They have also employed these same laws as premises in their logical deductions as part of the process of deriving further laws.

A knowledge of economic law does have beneficial effect in matters of public policy, however. Toynbee showed how credence in natural law tends to make workmen patient: "Teach them, it was said, that the rate of wages is not the result of accidental causes within the control of man but of great natural laws beyond his control, and all will be well."<sup>153</sup>

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<sup>152</sup> Essentials....., p. 475.

<sup>153</sup> op. cit., p. 22. cf. supra, p. 189.

Clark assured us that

economic law precludes a universal displacement and insures laborers for all time against being at the mercy of an industrial system which has nowhere need of their services.<sup>154</sup>

And, in general, "knowledge of economic law" is useful  
for the guidance of the state.<sup>155</sup>

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<sup>154</sup> Essentials....., p. 282.

<sup>155</sup> ibid., p. 561.

Max Weber and "Ideal Types" as Normal Laws

Another conception of economic law, very much akin to the normal law ideology is offered by Max Weber. For him the principal means of attaining knowledge about social relationships lies in a process which he called "understanding." By this he meant an intuitive grasp of the meaning of some economic act, rather than the familiar knowledge derived by abstract reasoning or empirical fact-gathering.<sup>156</sup>

Understanding is the method Weber proposes for the social sciences to attain "cognition of social reality." Social sciences here can either refer to history, which has the function of explaining the unique aspects of definite historical events, or to sociology, which formulates "type concepts and generalized uniformities." Thus sociology aims at clarifying the general concepts which history then applies to individual cases; the latter are as effects following from these causal principles.

To attain this understanding in sociology, Weber utilizes the concept of the "ideal type," which extracts

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<sup>156</sup>cf., Mises, Epistemological....., p. 12; supra, pp. 148, 200.



in descriptive form the essential characteristics of any particular economic phenomenon. In his own words, the ideal type:

is arrived at through the one-sided intensification of one or several aspects and through integration into an immanently consistent conceptual representation of a multiplicity of scattered and discreet individual phenomena, present here in greater number, there in less, and occasionally not at all, which are in congruity with these one-sidedly intensified aspects.<sup>157</sup>

His most famous ideal type was the description of a town, which formulated the essential features of a town, valid for any epoch. In the same way an ideal type can represent an act of exchange, or an entire exchange economy.

For Weber these ideal types make up the sum and substance of economic theory; there are no other propositions. In fact, economic laws are ideal types, as he stated:

The concepts and "laws" of pure economic theory are examples of this ideal type. They state what course a given type of human action would take if it were strictly rational, unaffected by errors or emotional factors and if, furthermore, it were completely and unequivocally directed to a single end, the maximization of economic advantage. In reality, action takes exactly this course only in unusual cases, as sometimes on the stock exchange; and even then

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<sup>157</sup>Mises, Epistemological...., p. 76. See Briefs, op. cit., pp. 18-22, for a description of Manuel Gottlieb's "ideal types."

there is usually only an approximation of the ideal type.<sup>158</sup>

The similarity between the normal law and the ideal type is quite clear. Both describe the essential elements of an economic activity. The neo-classical laws were tendencies and not completely factual; the ideal types described "...what course of action would take place if it were purely rational and oriented to economic ends alone."<sup>159</sup> Both are somewhat less than universal and are causal. "A correct causal interpretation of typical action," says Weber, "means that the process which is claimed to be typical is shown to be adequately grasped on the level of meaning and at the same time the interpretation is to some degree causally adequate."<sup>160</sup> Both emphasize verification.

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<sup>158</sup> Max Weber, Economy and Society: An Outline of Interpretive Sociology, Guenther Roth and Claus Wittich (Eds.), Bedminster Press, New York, 1968. Translation of: Wirtschaft und Gesellschaft: Grundriss der verstehenden Soziologie, 4th ed. Johannes Winckelmann (Ed.). Tübingen. Original edition: 1921.

<sup>159</sup> Weber, op. cit., p. 21.

<sup>160</sup> ibid., p. 12.

The ideal type differs from the normal law in that the latter represents a proposition contained in an a priori deductive process, whereas the ideal type is a clarifying description of the salient features of most individual cases.

Gresham's Law, for example, can be presented as an a priori or a posteriori law, or as an ideal type. In the latter case, says Weber, it is

a rationally evident anticipation of human action under given conditions and under the ideal-typical assumption of purely rational action.<sup>161</sup>

Finally, we note that normal laws are the end-product of neo-classical theory. Ideal types, on the other hand, are a means of investigation in Weber's system.

Weber's epistemological system follows logically from his assumptions. In the first place, his non-positivistic outlook permits us to recognize the ability of the human mind to abstract the essential features of phenomena. His concept of economics limits the ideal types to situations of perfectly rational behavior in a competitive exchange economy.

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<sup>161</sup>Mises, Epistemological, p. 86.

It would be interesting to point out Mises's principal objections to Weber's argument. Though he agrees that the ideal type is the appropriate method for examining history, he laments the total absence of all theoretical propositions in Weber's analysis.<sup>162</sup> He does not agree that logically and methodologically economics is akin to history.<sup>163</sup> He also criticizes Weber's limiting of economic science to market-type phenomena.<sup>164</sup>

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<sup>162</sup> ibid., p. 78.

<sup>163</sup> ibid., p. 75.

<sup>164</sup> ibid., p. 148. See also Mises's opinion on Gresham's Law, p. 86; and on general laws, p. 97.

### The Normal Laws in Retrospect

In making the step from the weak to the normal law theorists, a clear change could be seen in the philosophical outlook of the economists. Gone was the motivation to remake society or to control it at high levels. These economists were rationalists, but of the kind that utilized logical reasoning to understand and perfect the knowledge of the actual world they lived in. Their eloquent and continuing, if exaggerated, testimony in favor of unchangeable law gives evidence of their "materialism" and "critical rationalism." There were many allusions to positivist thinking, but it was a far cry from the positivism of Hutchison. Their rationalism was evidenced by their continuous attachment to the deductive process of logic; and it continues to this day with the mathematical economists.

Their principles were basic and just short of universal, a far cry from the ad hoc models produced by some of the devotees of empiricism. They generally held clear and definite notions of what economics was to cover; and each, within the ken of his own insight, sought to develop a total package of economic explanation. The fact that this vision of economics was coterminous with

some form of a monetary nexus is offered as the principal explanation for the failure of their laws to reach the absolute heights that their rhetoric had predicted. It became necessary to explain away the discrepancies between the reality described by their laws and that evidenced in the real world. But doubtless, they offered a clearer and more complete theoretical analysis of their own miniworld than did the two other groups of theorists.

The assumptions that they imposed upon the economic world were a magnificent attempt to explain the normalities and tendencies and the equilibria of economic systems and was proof of their dedication to scientific lawfulness. Their assumptions were real, because they believed in a real world of normality. Their inability to cope with imperfect competition was perhaps the one weakness that marred the beauty of their otherwise elegant model.

Although we cannot classify all these economists as methodological individualists, at least the later members of the group began their investigations with a study of the individual and the individual firm rather than with the national accounts, other global statistics, or the history of an epoch. With the exception of Malthus's Law, the laws generally reflect this synthetic approach

toward building up a science.

They believed in economic forces that were responsible for order in society; and though the name of the patron changed (from natural law on through utility theory), the forces they postulated evidenced more of a classical cause-and-effect relationship than the weak correlations seen in the last chapter.

Finally, the laws they promoted have survived admirably; the lot of them appears in modern textbooks though often with the epithet "law" truncated or with an updated version replacing the classical expression. They certainly have come to grips better than the two previous groups with the importance of scientific generalizations in economics.

Because of his importance as the great synthesizer of economics at the turn of the century, it would be appropriate to indicate the position that Alfred Marshall holds with reference to these conclusions about economic law. His views have been included in the above analysis; yet one cannot make the same clean-cut judgment about him as of many other of his contemporary economists.

It is true that he has accepted by and large the inheritance of laws as they were passed on through the Ricardo-Mill tradition and that he has updated economic theory with the marginal innovations of the seventies. He recapped a long impressive list of laws, beginning with the "great classical Law of Diminishing Return."

However, his treatment of law, while at times more thorough than that of others, does not leave the student with the same confidence that one receives from many of his contemporaries. According to Marshall, as we have seen, the study of economics was mostly a search for unraveling the "fundamental unities which are nature's laws."<sup>165</sup> And though he has made much of the law development process, in practice we see little of the process of developing tentative laws and the gradual evolving of more comprehensive ones. Marshall laid down this framework, but disappointingly he did not follow his model. True, he did utilize the fundamental laws and weaved them into the fabric of his argument; yet there is little of the progressive buildup that he promised. In fact, "law" was used to illustrate or economize on verbal description

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<sup>165</sup>op. cit. p. 40.



more than as a link in the logical process.

Also, the characteristics that Marshall assigned to laws follow our conclusions.<sup>166</sup> He emphasized the lack of exactitude as well as the uncertainty inherent in laws, although he upheld our principal contention that economic laws were "normal" rather than short run variations about the norm. However, Marshall felt that the selection of what is to be law should be made purely on grounds of convenience rather than of logic. This is a far cry from Smith's "simple and obvious system."

Another noteworthy characteristic of his was the progressive abandonment of the term "law" and the replacement of it with "principle." For example, Guillebaud noted how in the fourth edition he dropped the "law of substitution" in favor of the "principle of substitution."<sup>167</sup> The following explanatory footnote which appeared in the third edition was deleted in later editions:<sup>168</sup>

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<sup>166</sup> ibid., p. 32.

<sup>167</sup> Marshall, op. cit., 8th ed., Vol. I, p. 341, Vol. II, p. 357; cf. 4th ed., p. 420.

<sup>168</sup> Marshall, op. cit., 8th ed., Vol. II, p. 357; cf. 3rd ed., p. 420.

"This general statement of a broad principle is called a law, not very appropriately, but for lack of a better term."

Another instance, noted by Guillebaud, occurred in the substitution of the phrase "the conditions of normal supply" for "the law of supply," which appeared in the second addition.<sup>169</sup>

Marshall also used the word principle when referring to "heredity" and "eugenics", as well as the terms doctrine and general rule.

It is quite clear that with Marshall the attachment to the term economic law has been weakened, a tendency that was to be accentuated in his successors.

He has been classified among the normal lawmen primarily because he did retain the full classical treatment of law, together with an impressive listing of the laws themselves.

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<sup>169</sup> Marshall, op. cit., 8th ed., Vol. I, p. 342; Vol. II, p. 357; cf. 2nd ed., p. 403; 3rd ed., p. 421.

## CHAPTER VI

### STRONG ECONOMIC LAWS

And, I hope to have made clear, there is one more thing that not even the most imposing dictate of power will accomplish: It can never effect anything in contradiction to the economic laws of value, price and distribution; it must always be in conformity with these; it cannot invalidate them; it can merely confirm and fulfill them. And this, I think, is the most important, and the most certain conclusion of the foregoing inquiry.

Eugen Von Böhm-Bawerk,  
"Control or Economic Law?"<sup>1</sup>

<sup>1</sup> Eugen Von Böhm-Bawerk, "Control or Economic Law?" Shorter Classics of Eugen Von Böhm-Bawerk, Vol. I. (Libertarian Press, South Holland, Ill., 1962), p. 194.

### Strong Economic Laws

We now turn to the strong law category, which has been reserved principally for the Austrian and Marxian versions of economic law. In general, these laws are of a distinct flavor than those familiar in the textbooks. And whereas we have noted how the tendency among normal law economists is to discontinue usage of the term law, this is not so with the strong law group. This is especially noteworthy among the Soviets, who continue to make their official pronouncements in terms of Marxian law.

The fundamental distinctive of the strong laws is the unique philosophical base of assumption and postulate which each group upholds. Each group is composed of dedicated rationalists with little attachment to positivism either in theory or in method. For each, economics has become a fundamental branch of knowledge. The Austrians consider economics to be concerned with an aspect of each and every human act. The Marxists have made economic production the basis of all of historical materialism, which guides their thinking. We will see that the economic laws that emerge from each of these complexes of thought

will possess in a unique manner the strong law characteristics that we have postulated. In fact, all economists in each group are decided lawmen.

### Austrian A Priori Laws

A special concept of law in economics is held by a group of theorists who consider economic science to be based upon a number of a priori propositions, somewhat similar to those of the normal law economists. But these theorists have taken the added step of not limiting economics to some form of wealth-making. Instead, they have gradually polished the meaning of the science to the degree that it reflects the logical implications of all human actions, not just of those dealing with the material aspects of life, and have thus prepared the grounds for a set of laws with a greater claim to universality than those of other groups.

The principal exponents of this viewpoint have been the members of the Austrian school, notably Carl Menger, Eugen Von Böhm-Bawerk, Ludwig Von Mises, and Friedrich Von Hayek. We also include Frederic Bastiat, Philip Wicksteed, and Lord Lionel Robbins, who though not specifically Austrians, have held similar views on economics,

sufficiently rigid to advocate strong laws.

These laws are, in no sense, empirical, historical, mathematical, or statistical. Rather, they are generated by logical deduction from a limited number of basic postulates, the chief of which is that man chooses the means most apt to attain his ends (Robbins) or that he acts in order to improve his circumstances (Mises). Though free to decide upon alternative courses of action in attempting to better his condition in life, man necessarily and unfailingly follows certain formal regularities, which can be determined by discursive reasoning from the basic postulates.

Economics is, therefore, a nomothetic science, though not in the sense of the natural sciences, which rely on the possibility of experimentation in deriving their laws. The theorems of economics are deduced by reasoning from a set of universal postulates, which express the essential implications of every human action. They are thus as truly scientific laws as those of the natural sciences.

What laws are postulated by these authors? We follow Mises in listing some of the fundamental laws of human action and human cooperation, as he views them. In addition to the economic principle, there are the laws of value,

including marginal utility and Gossen's law. There follow the laws of catallactics (exchange), which form the heart of economics; these include the laws of price determination, of monopoly price, and of imputation. There are laws of returns, including that of population; and finally the laws of monetary theory, of fiduciary media, of purchasing power parity, and Gresham's Law.

We proceed now to examine the assumptions and postulates that form the basis for these strong laws.

Austrian Assumptions. The fundamental assumption of these economists is their belief in rationalism, with its emphasis on the power of the human mind to reason, and its rejection of positivism. Mises wrote that a "great accomplishment of rationalism was the construction of a theoretical science of human action, i.e., a science that aims at the ascertainment of universally valid laws of human conduct."<sup>2</sup> This science would investigate what is unchanging and essential in all human activities. In the spirit of Haney's materialists, it recognizes that "Man cannot presume to dictate terms to nature";<sup>3</sup> and

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<sup>2</sup> Epistemological....., p. 68.

<sup>3</sup> History....., p. 10; 1920 edition.

with the critical rationalists that there are certain regularities in human nature that not even political systems can change. As Mises noted:

The development of economics and rationalistic sociology from Cantillon and Hume to Bentham and Ricardo did more to transform human thinking than any other scientific theory before or since. Up to that time it had been believed that no bounds other than those drawn by the laws of nature circumscribed the path of acting man. It was not known that there is still something more that sets a limit to political power beyond which it cannot go. Now it was learned that in the social realm too there is something operative which power and force are unable to alter and to which they must adjust themselves if they hope to achieve success, in precisely the same way as they must take into account the laws of nature."<sup>4</sup>

This group of rationalistic thinkers have conceived of economics as a science with definite meaning, scope, and method, distinct from sister sciences. For example, it is not history. The latter, among other things, studies what is unique (and not universal) about particular events; it uses the method of understanding to derive its "ideal type" constructs; and furthermore, having no theoretical propositions (laws) of its own, it must rely on the

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<sup>4</sup> Epistemological....., p. 3.



generalizations of economics and other sciences.

Nor is economics one of the empirical sciences. The latter depend on factual generalizations, taken from "actual settings", they deal with complex phenomena, and thus can never arrive at truly universal statements. Economics, on the contrary, is geared to formal concepts, existing prior to experience,<sup>5</sup> and never fully identifiable in reality.

Furthermore, the scope of economics is not limited to just commercial transactions, as the classical economists thought, or to some ideal type of economic man. Economics is not specifically the science of wealth and welfare, of gross national product, or maximization, or of macro-policies. In fact, these thinkers hold that there is no separate province between the economic and the non-economic; Mises held such a distinction as absurd.<sup>6</sup> Wicksteed brought this out when he said:

To regard the 'economic man' (as he is often called) as actuated solely by the desire to possess wealth is to think of him as only desiring to collect tools and never desiring

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<sup>5</sup> cf. infra, pp. 333-4.

<sup>6</sup> Epistemological....., p. 147.

to do or make anything with them...A man may be just as strenuous in the pursuit of knowledge or of fame, or in his obedience to an artistic impulse, as in the pursuit of wealth.

Economics, then, is not primarily concerned with some "department" of human affairs, but rather directs its investigations towards a particular "aspect" of human affairs. Being conceived in Fraser's type "B" sense,<sup>8</sup> economics thus becomes a theoretical and positive science, capable of generating generalizations with the strongest of attributes.

Economics, in this view, refers then to a specific aspect of human conduct; it seeks out the "regularity prevailing in the action of men."<sup>9</sup> It attempts to pinpoint what is essential in every instance of action. As Lord Robbins said, in his introduction to the Wicksteed volume:

Economics is seen to be a discussion not of the nature of certain kinds of behaviour arbitrarily separated off from all others,

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<sup>7</sup> Philip H. Wicksteed, The Common Sense of Political Economy (George Routledge and Sons, Ltd., London, 1933), pp. 163-4. Original edition: (Macmillan & Co., Ltd., London, 1910).

<sup>8</sup> op. cit., p. 41.

<sup>9</sup> Mises, Epistemological....., p. 3.

but of a certain aspect of behaviour viewed as a whole.<sup>10</sup>

For Robbins, action consists essentially in the selection among scarce alternatives of the means most suited to attain specific ends.<sup>11</sup> In Mises's view, the precise finality of human action is to improve one's lot.<sup>12</sup> In either case, the science of economics will apply to each and every human act. Hence its claim to universality.

As Mises added:

The economic principle is the fundamental principle of all rational action, and not just a particular feature of a certain kind of rational action. All rational action is therefore an act of economizing.<sup>13</sup>

However, it is not the physical or technological aspect of action that point to the specifically economic. For Wicksteed it was the psychical. "Whereas," he said, "his [the economist's] data are partly physical and partly psychical, his quaesita are, in the last resort, wholly psychical."<sup>14</sup> Mises, however, makes the distinction

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<sup>10</sup> Wicksteed, op.cit., p. xxii.

<sup>11</sup> An Essay....., pp. 16-17, 83.

<sup>12</sup> cf. Kirzner, op. cit., for a comparison of the views of Mises and Robbins.

<sup>13</sup> Epistemological....., p. 148.

<sup>14</sup> The Common Sense....., p. 767.

between psychology, which analyzes the "psychic events that result in action", and economics, which treats of "action and what follows from the action."<sup>15</sup> Thus it is the essential logic of action, rather than its causes or motivations that determine an economic action. Again, economics:

views action and the conditions under which action takes place not in their concrete form...but as formal constructions that enable us to grasp the patterns of human action in their purity.<sup>16</sup>

The fundamental postulates of economics derive from the implications of the "necessity of choice" (Fetter), of the "existence of scarce means with alternative uses" (Robbins),<sup>17</sup> or of the category of action (Mises). They are assumptions about the economic process, as for instance, the postulates that man can order his preferences, that the factors of production are not completely substitutable, or that economic activity must take place in an environment of uncertainty.<sup>18</sup> According to Robbins, the basic postulates

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<sup>15</sup> Epistemological....., p. 3.

<sup>16</sup> Mises, Epistemological....., p. 13.

<sup>17</sup> An Essay....., p. 83.

<sup>18</sup> Robbins, An Essay....., p. 78.

are elementary facts of experience. "The ultimate constituents of our fundamental generalizations are known to us by immediate acquaintance."<sup>19</sup> According to Mises, however, this knowledge is intuitive:

What we know about the fundamental categories of action - action, economizing, preferring, the relationship of means and ends, and everything else that, together with these, constitutes the system of human action - is not derived from experience. We conceive all this from within, just as we conceive logical and mathematical truths, a priori, without reference to any experience.<sup>20</sup>

Rothbard, interpreting Mises, emphasizes that only the fundamental axiom of action is a priori and that several subsidiary postulates (the existence of resources, the desire for leisure, the existence of indirect exchange, and maximization by business firms) are rather self-evident than empirical in the positivist sense.<sup>21</sup> Rothbard himself dissents from Mises's Kantian terminology and prefers to consider the action axiom as an empirical

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<sup>19</sup> ibid., p. 105.

<sup>20</sup> Epistemological...., pp. 13-14.

<sup>21</sup> Murray J. Rothbard, "In Defense of 'Extreme Apriorism'," Southern Economic Journal (January, 1957), Vol. XXII, No. 3., pp. 314-320.

law of reality rather than as a priori.<sup>22</sup>

Having determined the first axioms and postulates of economics, we inquire what epistemological tool will be employed for the derivation of economic laws? We have already indicated that such a tool cannot be "understanding", the latter helps the historical scientist to distinguish between the qualities and forms of events, but does not lead to an understanding of the essence of human actions, nor does it allow of arguments that are not fashioned by the subjective intuition of the individual historian.

What is needed is an objective process which "seeks to grasp the meaning of action through discursive reasoning."<sup>23</sup> This Mises calls conception; it forms the basis for the deductive process by which the laws of economics are derived. Conception allows for the application of strict rules of logic to arrive at what Mises calls "apodictic" truth.

Unlike understanding, which can be employed for the

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<sup>22</sup> ibid., p. 318. However, Rothbard uses the term empirical in a non-positivist sense.

<sup>23</sup> Mises, Epistemological...., p. 133.

study of holistic phenomena, conception is applied only with reference to individual cases. As Mises said: "For the purposes of science we must start from the action of the individual because this is the only thing of which we can have direct cognition."<sup>24</sup> He also holds that a science of economics was possible only because of the introduction of methodological individualism as a technique.<sup>25</sup>

Kaufmann, of course, rejects these arguments. For him Mises's concepts are defined analytically (by definition); it is thus impossible to pass the gulf between them and any synthetic (from experience) statement about reality.<sup>26</sup>

Philosopher F.S.C. Northrop concurs in the validity of the deductive process in deriving the laws of economics. It is a procedure according to which the postulates or basic premises are empirically verified, and from which the theorems automatically follow without need of veri-

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<sup>24</sup> Epistemological....., p. 43.

<sup>25</sup> ibid., p. 153.

<sup>26</sup> op. cit., pp. 226-7; See also Hutchison, The Significance....., pp. 46-47.

fication. The process thus is logically airtight and begets errorless conclusions.

Northrop distinguishes between two classes of postulates: those by intuition, which are the same as those obtained in the empirical sciences, and concepts by postulation, which are utilized in the deductive process and depend for their meaning on the logical pre-suppositions of the deduction in which they are made to appear. When the concepts by intuition are inserted in the deductive process, they are converted into "logical concepts by intuition",<sup>27</sup> which are concepts by postulation; in the words of Northrop, "an immortal logical status has been postulated" for them. Thus we have the best of both worlds. Northrop explains the logical process of deductive economics as follows:

The economic science of the Austrian and the Classical Anglo-American School is an abstractive deductively formulated scientific theory with the attendant basic concepts by postulation which are logical concepts by intuition. Furthermore, experts in this science affirm that they believe in the theory because the postulates are directly verified empirically and that they believe in the theorems, not because the latter are or always

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<sup>27</sup> op. cit., p. 94.



can be empirically verified, but because the theorems are the logical consequence of the empirically verified postulates. [since the concepts by postulation...are identified with concepts by intuition, not only can the direct method of the verification of the postulates of science occur, but,...this must be the case for any theory constructed in terms of such concepts.]<sup>28</sup>

In addition to the basic assumption of rationalism, the employment of conception as the appropriate cognitive process, and the utilization of a few empirical axioms, we find that the strong law economists do not require other rigid assumptions, as that of perfect competition or rational behavior on the part of the market participants.

Wicksteed indicated that even in the absence of optimum conditions, economic laws still remain operative.

He stated:

There are many types of market and forms of sale, but they all conform to the same law, so far as the essential condition of free communication, and knowledge of each other's doings, is realized amongst the persons concerned; and when this is not the case men's actions are still controlled by the same fundamental laws and forces which create more or less perfect markets where conditions are favorable.<sup>29</sup>

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<sup>28</sup> ibid., p. 107.

<sup>29</sup> op. cit., p. 213.

Bohm-Bawerk reasoned that the use of force could never negate the functioning of economic laws. Even in strikes, the "influence of power" acts "wholly in conformity and in harmony"<sup>30</sup> with these laws. He went on to add:

The exertion of economic control never introduces any new element into the determination of price that had not previously found a place in the purely theoretical laws of prices.

Robbins strives to show that economic rationality is not a necessary prerequisite for economic law, although he notes that rationality is often assumed, in the sense that an action has been consistent or goal-oriented. However, this is done primarily as a means of isolating the effects of various conflicting tendencies in the real world, in order to understand them better.<sup>32</sup> Mises categorically denies any need to presume rationality. For him "action is, by definition, always rational";<sup>33</sup> and

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<sup>30</sup> op. cit., pp. 174-175.

<sup>31</sup> ibid., p. 156.

<sup>32</sup> cf. An Essay..., pp. 90-94.

<sup>33</sup> Epistemological..., p. 35.

irrationality would merely mean that a person holds a different scale of values than another.

Robbins shows how the notion of economic man is but an "expository device", and in no sense a universal assumption.<sup>34</sup>

In bringing to a close our discussion of the philosophy and assumptions that underlie the analysis of these economists, we trust that it is clear that they uphold a complex of beliefs and methods that will strongly favor the notion of law. Their rationalist mentality fosters the discovery of a priori regularities that form an essential characteristic of all human activities. The science of economics is clearly delimited to a specific aspect of all human endeavors, precisely, action and its logical derivatives. An exact epistemology favors the deductive method of reasoning. No assumptions are made to confine the analysis to some human acts only, thereby eliminating all those which have no direct connection with the marketplace.

There is no need of any outside natural law metaphysic to bind this system together. In fact, Mises says

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<sup>34</sup> An Essay..., p. 97.

that "many manifestly spurious theses have been advanced under the label of natural law."<sup>35</sup> Wicksteed often speaks of some "economic forces" which exercise pressure on conditions, but these forces are depicted as the resultant of the economic motive itself.<sup>36</sup> We can therefore conclude that the Austrian analysis is logically complete and self-contained.

Meaning of Austrian Laws. The next task will be to investigate the meaning of law in the mind of these a priori theorists. Laws here are meant to express the "regularity in the necessary succession and concatenation of what is commonly called economic events."<sup>37</sup> They point out the "regularity prevailing in the action of men."<sup>38</sup>

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<sup>35</sup> Theory and History, p. 44. Gonce (Natural Law..., p. 491) holds that "Mises' system embodies individualistic, secular natural law philosophy". He also cites to this effect G. Myrdal [The Political Element in the Development of Economic Theory, trans. P. Streeten (Harvard University Press, Cambridge, Mass., 1965), pp. 121-122; and H. H. Liebhafsky, American Government and Business, (John Wiley & Sons, Inc., New York, 1971), p. 567.]

<sup>36</sup> op. cit., pp. 167, 517.

<sup>37</sup> Mises, Epistemological..., p. vi.

<sup>38</sup> ibid., p. 3.

Laws do not reflect either technological or psychological regularities; nor are they empirical generalizations. They are truly scientific laws and cannot be considered as mere tendencies.<sup>39</sup> "They are the expression of what is to be singled out of the fullness and diversity of phenomena from the point of view of the science that aims at the cognition of what is essential and necessary in every instance of human action."<sup>40</sup>

Laws must not refer to "vague notions such as the total product, but to perfectly definite concepts such as price, supply, demand, and so on."<sup>41</sup> No imprecise notions can be contained in a law; however, this precision is not to be taken in a quantitative sense. The division of labor is not a law, but rather a datum, Mises notes.<sup>42</sup> It is an ideal type, such as those used by the historians, and thus can never be the basis of a law.

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<sup>39</sup> ibid., p. 89; however, see Robbins, An Essay..., p. 67.

<sup>40</sup> Mises, Epistemological..., pp. 90-91.

<sup>41</sup> Robbins, An Essay..., p. 67.

<sup>42</sup> Epistemological..., p. 113.

What are the characteristics of these laws? We assume that they will illustrate all the strong law qualities in a unique degree. In the first place, they are universal, as Mises states:

The purpose of this book is to establish the logical legitimacy of the science that has for its object the universally valid laws of human action, i.e., laws that claim validity without respect to the place, time, race, nationality, or class of the actor.<sup>43</sup>

Wicksteed illustrated the universality of the law of the market as follows:

But the law of the market never changes. The price is always determined by estimates of the quantity of the commodity available and estimates of the relative scales of the community.<sup>44</sup>

Strong laws are causal in the old sense that each effect must be the resultant of the action of one or more specific causes. The category of causality, says Mises, "is the only category that cannot be thought away."<sup>45</sup> "The fundamental category of action, viz., means and ends, presupposes the category of cause and effect."<sup>46</sup>

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<sup>43</sup> Epistemological..., pp. xiii-xiv.

<sup>44</sup> op. cit., p. 262; see also Robbins, An Essay..., p. 81.

<sup>45</sup> Epistemological..., p. 47.

<sup>46</sup> Theory and History, p. 93.

Wicksteeds economic forces, which indicate "the resultant pressure of all the conditions, material and psychological, that urge men to enter into economic relations with each other,"<sup>47</sup> are illustrative of causation in economics. Mises emphasizes the necessity and determinism of law as follows:

All facts are dependent upon and conditioned by their causes. No deviation from the necessary course of affairs is possible. Eternal law regulates everything. In this sense determinism is the epistemological basis of the human search for knowledge."<sup>48</sup>

Robbins confirms this view as follows: "Economic laws describe inevitable implications. If the data they postulate are given, then the consequences they predict necessarily follow. In this sense they are on the same footing as other scientific laws, and as little capable of suspension."<sup>49</sup>

These authors likewise consider economic laws as certain, as Mises noted:

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<sup>47</sup> op. cit., p. 167; cf. also pp. 517, 719.

<sup>48</sup> Theory and History, p. 74.

<sup>49</sup> An Essay...., p. 121.

The theorems of economics...are of aprior-  
istic derivation and therefore lay claim to  
the apodictic certainty that belongs to  
basic principles so derived.<sup>50</sup>

They are "teleological" because they define action as a  
form of conscious behavior.<sup>51</sup>

The reason for their opposition to the quantifiability  
of laws is founded on the a priori reasoning that the very  
nature of economic theory has to do with the qualitative  
aspects of acting man it cannot by definition impart  
quantitative knowledge.<sup>52</sup> Furthermore, it is impossible  
to determine constants in human relations, as we do in  
natural science.<sup>53</sup> "It is pointless to talk of variables  
when there are no invariables."<sup>54</sup> Robbins, however, does  
not consider the formulation of quantitative laws as  
impossible, but merely as "associated with peril and  
difficulty."<sup>55</sup> He goes on to deny the status of laws to

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<sup>50</sup> Epistemological..., p. 17.

<sup>51</sup> ibid., p. 26.

<sup>52</sup> cf. Mises, Epistemological..., p. 116.

<sup>53</sup> cf. Mises, Theory and History, pp. 10-11.

<sup>54</sup> ibid., p. 12.

<sup>55</sup> An Essay..., p. 111.



measures of the elasticity of demand. "They have no claim to be regarded as immutable laws."<sup>56</sup>

At the same time, verification is not possible with economic laws of the a priori type. As Mises remarks:

No kind of experience can ever force us to discard or modify a priori theorems. They are not derived from experience; they are logically prior to it and cannot be either proved by corroborative experience or disproved by experience to the contrary.<sup>57</sup>

Mises adds that even if facts were to contradict an a priori theory, we have no right to discard it, if it is logically sound.<sup>58</sup> Rothbard considers as one of the characteristics of these laws the fact that "the deduced theorems could not be tested even if it were desirable."<sup>59</sup>

The purpose of the strong laws is primarily to explain the nature of the regularities of human conduct. The main vehicles for this, according to Robbins, have been the laws of valuation and diminishing returns.<sup>60</sup> Mises held

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<sup>56</sup> ibid., p. 109.

<sup>57</sup> Epistemological..., p. 27.

<sup>58</sup> ibid., p. 30.

<sup>59</sup> "In Defense....," p. 914.

<sup>60</sup> An Essay..., p. 76.

that Ricardo's law of association brought men to the understanding not only of the division of labor but also of the meaning of society itself.<sup>61</sup>

But since the strong laws are, not like the historical laws, valid for all times, they are useful for prediction; as Mises observed:

The economist can and does know in advance what effect an increase in the quantity of money will have upon its purchasing power or what consequences price controls must have.... However, this knowledge is not quantitatively definite.<sup>62</sup>

This prediction is not, of course, the statistical extrapolation of trend lines in the manner of econometrics, but is rather a wholly rational process. Thus a certain sense of political wisdom derives from economic law; it enables men to avoid "courses which the acknowledgment of law in the economic sphere would have suggested to be unwise."<sup>63</sup>

Finally, being critical rationalists, these economists did not consider "control" as a function of economic law.

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<sup>61</sup> Epistemological..., p. 3; see also Theory and History, p. 203.

<sup>62</sup> Epistemological..., p. 118; see Robbins, An Essay..., p. 121.

<sup>63</sup> Robbins, An Essay....., p. 83.

In many aspects the strong a priori laws have followed the path set by the normal laws before them. However, distinct differences have been observed.

In the first place, there has been no need to explain exceptions to the strong laws or qualify them in various ways. The normal lawmen, we will recall, spoke of counter-  
vailing laws, vitiating conditions, or bogus corporations that interfered with the functioning of their laws.<sup>64</sup> The strong laws are always applicable, if only the conditions they impose are realized. For example, a strong Gresham's law will always be operative if the precise preconditions are fulfilled: two monetary units in coexistence, with one overvalued. No broader overarching requirements, like perfect competition, are postulated for the operation of the strong law. Mises addresses himself to the normal law economist in this way:

...the idea arose that the laws of catallactics hold true only ideally, i.e., on the assumption that men act in a vacuum, as it were. But, of course, in life everything happens quite differently. In life there are "frictional resistances" of all kinds, which are responsible for the fact that the outcome of our action is different from what the laws would lead one to expect. From

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64 supra, p. 295.

the very outset no way was seen in which these resistances could be exactly measured or, indeed, fully comprehended even qualitatively. So one had to resign oneself to admitting that economics has but slight value both for the cognition of the relationships of our<sup>65</sup> life in society and for actual practice.

Another difference between the two classifications of law is the reduced use of ceteris paribus by the strong lawmen. In fact, they use the term in a different connotation. For them it means merely that other changes are held in abeyance while the student concentrates on the change at hand. It is not used to limit the application of laws, as was done by the normal law economists.<sup>66</sup> There is no ceteris paribus cloakroom.

Again, we do not detect in these economists the use of economic law in the all-pervading sense of Malthus.<sup>67</sup> They generally limit the term to specific instances of deductive law or generalized groupings of such laws. When they speak of natural law, as they do, they mean the regularities observed in natural science, not some real over-

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<sup>65</sup> Epistemological..., pp. 162-3.

<sup>66</sup> ibid., p. 108.

<sup>67</sup> supra, p. 263.

spanning phenomenon that the earlier normal lawmen used to evoke.

In sum, this group of a priori economists offer us a set of laws which they consider valid for all ages and all places. They are deterministic, being based on causation in the old sense, and thus cannot be modified by experience; in fact, they can be considered as prior to all experience.<sup>68</sup> They apply to all cases, not being limited to normal conditions only. They are free of value judgments, free of political judgments, free of technology.

Further, and importantly, the laws of economics have "teeth" in them. They are a subdivision of the greater laws of nature, "a set of theorems which no caviling can ever invalidate."<sup>69</sup> Every economic law postulates some necessary effect, given the conditions required. It puts bounds to the possible actions of man, beyond which he cannot go without worsening (impoverishing) himself, for it takes into account "the mutual incompatibility of

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<sup>68</sup> Mises, Epistemological..., p. 13.

<sup>69</sup> Mises, Theory and History, p. 45.

individual desires and the impossibility of perfect satisfaction." Political manipulations may alter the data which provide grist for the economic mill, but cannot change the innermost workings of the mill.

In fine, we find no evidence of the indecisiveness that the normal laws exhibited with reference to the strong qualities.

## Marxian Laws

Marxian assumptions. Similar to the Austrian laws are the Marxian, in the sense that both sets are meant to cover all branches of human activity, not just some "economic" subset of human affairs. Both sets are universally applicable. Both postulate a "real" world, and need not distinguish a normal world from the actual. The philosophers of both are "materialists", in the sense that they purport to describe the world as their philosophy conceives it, not to reconstruct it according to some subjective plan.

These laws differ, however, in the fact that whereas the Austrian logical scheme derives from some elementary universal postulates, the Marxian is built upon a grandiose structure of monist materialist philosophy. The eyes of the Austrians saw great human progress in the nineteenth century and developed an explanation that depended on certain a priori regularities in the conduct of freely acting men, seeking their chosen goals in life; the Marxists, on the contrary, saw nothing but misery and degradation in the same period of history and developed an explanation that fed upon the inexorable necessities

attendant upon the inner contradictions inherent in all things.

Both groups, however, pertain to our category of strong laws in the sense that their authors unflinchingly uphold the universality and necessity of these laws; and it is now our task to demonstrate this for the Marxian laws.

A strong set of laws will be found in the Marxian approach to social science because perhaps more than any other composite theory, Marxism is based upon its own philosophy, dialectical materialism; is rooted in its own metaeconomic base, historical materialism; and even has its own special dialectic epistemology. Marxism espouses the notion of law at all levels; its fundamental philosophy which comprises all of reality, is actually expressed in terms of law. It is perhaps the last law of nature philosophy, and itself has begotten both general and special laws of its own.

In the first place, materialism holds that all being is made of matter; this matter has the further properties of being eternal, and engaged ever in an upward and immanent motion. Nothing is ever still; all is in the process



of change, of becoming, of withering away. The dialectic refers both to the nature of this movement, as well as to the method of logical inquiry it presupposes. The movement emphasizes the eternal contradiction inherent in all nature, as Stalin has noted, quoting Lenin: "In its proper meaning dialectics is the study of the contradiction within the very essence of things."<sup>70</sup>

Again, the dialectic involves a "total world-outlook" which is centered in law. As Wetter has noted, quoting Alexandrov:

The subject-matter of dialectical materialism consists, according to Soviet philosophy, in "the most general laws of motion, change and development in Nature, society and knowledge, investigation of which gives rise to a unitary, scientific world-picture."<sup>71</sup>

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<sup>70</sup> V. I. Lenin, Filosofskie tetradi (Philosophical Notebooks), Moscow, 1947; cf. Joseph Stalin, Dialectical and Historical Materialism (International Publishers, New York, 1940), p. 11.

<sup>71</sup> G. I. Alexandrov (Ed.), Dialektichesky Materializm (Dialectical Materialism), Philosophical Institute of the Academy of Sciences of the U.S.S.R., Moscow, 1954; cf. Gustav A. Wetter, Dialectical Materialism, A Historical & Systematic Survey of Philosophy in the Soviet Union, trans. Peter Heath (Frederick A. Praeger, Inc., New York, 1958), p. 251.

The dialectic is usually described in terms of the famous Hegelian triad. As Wetter expresses it, the dialectic is

...a process in which a starting-point [thesis] is negated, thereby setting up a second position opposed to it [antithesis]. This second position is in turn, negated, i.e., by negation of the negation, so as to reach a third position representing a synthesis of the two preceding, in which both are...abolished and at the same time preserved on a higher level of being. This third phase [synthesis] then figures as the first step in a new dialectical process, leading to a new synthesis, and so on."<sup>72</sup>

Usually the mechanism that described the dialectic in operation is explained in the form of three laws.

The first of these laws is that of the transition from quantity to quality.<sup>73</sup> This law explains how changes occur in the natural and social world; gradual increments of some particular factor not only account for quantitative changes, but can abruptly bring about essential qualitative transformations. Wetter describes this law as follows:

The development of things and phenomena in the world proceeds up to a certain point in the form of a gradual, merely quantitative change, by successive addition or subtraction. But now this quantitative change advances beyond the limits set by the nature of the thing in question, a sudden shift from

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<sup>72</sup> op. cit., p. 4.

<sup>73</sup> cf. Marx, op. cit., p. 338.

quantitative to qualitative occurs; the thing ceases to be what it is and becomes something else; a new 'quality' makes its appearance.<sup>74</sup>

The law is exemplified by the qualitative change in the atoms of the periodic table that results from the addition of protons; in social affairs, when revolution suddenly erupts after years of slow-moving evolution.

The second law of the dialectic explains how this transformation to higher qualities takes place. This is the law of the mutual interpenetration of opposites, or of the unity and struggle of opposites. According to this law, motion does not depend on some prime mover existing outside an object, but "the origin of motion in things and in the world is held to lie, rather, in the inner 'contradictions' residing in the nature of every single thing and phenomenon as such."<sup>75</sup> This motion is illustrated by the biological processes of metabolism and katabolism, and in social life by the class struggle.

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<sup>74</sup> op. cit., p. 320.

<sup>75</sup> Wetter, op. cit., p. 311.

The final law is that of the negation of the negation,<sup>76</sup> which is the culmination of the dialectical movement. As Wetter explains:

The sudden change to a new quality, as depicted in the law of the transformation of quantity into quality, necessarily implies the negation of the previous quality. But such a negation is not the end of the matter. The new quality also becomes in turn the starting-point for a process of development which again leads to its negation; the first negation is 'transcended' into a new one.<sup>77</sup>

An illustration of this law in natural science is seen in the death of the seed that thereby produces new life; in social affairs primitive communal life once gave way to capitalistic private property which, in turn, gives way to the communistic system of the socialist countries.

These three laws form the core of the philosophy of dialectic materialism. It is no wonder that, being based upon a creed replete with notions of movement, disorder, alienation, leaps forward, and revolution, Marxism engenders the political upheavals that it does.

These laws are the general laws which apply to all branches of knowledge. The individual laws of the various

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<sup>76</sup> cf. Marx, p. 837.

<sup>77</sup> op. cit., p. 356.

sciences are but manifestations of the general laws of the dialectic. Thus the laws of biology, linguistics, art, or economics must always follow the dialectical pattern, as must also the natural sciences. In practical affairs, the dialectic pervades every facet of Soviet life. As Lenin said:

In a word, not only do oats grow according to Hegel but the Russian Social-Democrats wage war among themselves according to Hegel.<sup>78</sup>

Historical materialism is the corresponding doctrine that applies the dialectic to the problems of society; it is the economic interpretation of history. Stalin thus relates the two:

If the connection between the phenomena of nature and their interdependence are laws of the development of nature, it follows, too, that the connection and interdependence of the phenomena of social life are laws of the development of society, and not something accidental.

Hence social life...becomes the history of the development of society according to regular laws, and the study of history of society becomes a science.<sup>79</sup>

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<sup>78</sup> V.I. Lenin, "One Step Forward, Two Steps Back", Selected Works, (Moscow-London, 1936-9), Vol. II, p. 463; cf. Wetter, op. cit., p. 357.

<sup>79</sup> op. cit., p. 19.

According to this viewpoint, the forces that determine the characteristics of human society consist of the material means of production and the relations of production. The first includes the physical equipment available for sustaining livelihood in a country; the second refers to the relationships between employers and employees, or to the class struggle, which arises from the primitive accumulation of property and the phenomenon of surplus value.

It is upon this twofold base that the entire superstructure (political, artistic, philosophical, religious,) depends. This base is in constant evolution, building up tension in the superstructure until it is overthrown by revolution.

Notwithstanding its materialism, Marxism also considers that the world is knowable by man, as Stalin has categorically stated:

Marxist philosophical materialism holds that the world and its laws are fully knowable, that our knowledge of the laws of nature, tested by experiment and practice, is authentic knowledge having the validity of objective truth.<sup>80</sup>

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<sup>80</sup> op. cit., p. 17.

It would be overwhelming for us to attempt a thorough analysis of the Marxian assumptions. What is clear, even from this cursory review of them, is that economic considerations occupy the center of the Marxian stage. People are mere "personifications of economic categories, embodiments of particular class-relations and class-interests."<sup>81</sup> Given these postulates, the rest follows. In fact, Marx disagrees with Ricardo precisely when the latter does not conceive of them as Marx sees them,<sup>82</sup> especially his concept of surplus-value.

Marxian laws will depend for their validity on the acceptance, then, of a long series of doctrines, such as, to enumerate but a few: the labor theory of value, surplus value, constant and variable capital, the increasing misery of the proletariat, the industrial reserve army. Given these assumptions, a formidable system of law logically follows.

Marxian laws. The meaning of law, as it is used by Marx and then later on by the Soviets, follows the Hegelian definition of "essential Appearance."<sup>83</sup>

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<sup>81</sup> ibid., p. 15.

<sup>82</sup> op cit., pp. 573-4, p. 17.

<sup>83</sup> Wetter, op cit., p. 373; cf. Hegel, Science of Logic, II, p. 133.

Lenin holds that "law is the reflection of what is essential in the motion of the universe."<sup>84</sup> We are thus dealing not with arbitrary relationships concerning the secondary characteristics of things, but rather with something pertaining to the very core of reality. Law reflects what is constant; it does not describe things as completely as do outward phenomena, but more deeply. Law represents not an external force, but something proceeding from within the very nature of things. All of this adds force to the characteristic of "strong" which we have assigned to the Marxian version of law.

What then are the economic laws that Marx proposes? They are found throughout Capital. In the first place, he indicates the famous law of motion, and its place in progress:

And even when a society has got upon the right track for the discovery of the natural laws of its movement - and it is the ultimate aim of this work, to lay bare the economic law of motion of modern society - it can neither clear by bold leaps, nor remove by legal enactments, the obstacles offered by the successive phases of its normal development. But it can shorten and lessen the birth-pangs.<sup>85</sup>

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<sup>84</sup> Filosofskie Tetradi, p. 127; cf. Wetter, op. cit., p. 373.

<sup>85</sup> Capital, pp. 14-15.



He presents laws regulating capitalist production, as well as the division and efficiency of labor. Others define the nature, circulation, and exchange of commodities.

There are also laws concerning labor power and surplus value; these include laws of the supply of labor exploitable by capital, the limit of the reduction of variable capital, and the mass of value and surplus-value produced. Laws also cover wages and capitalistic appropriation, and the accumulation of capital. Finally, there are laws concerning the determination of value, as well as the circulation of money.

Marx's method is, as he describes it in the Preface to Capital, the "direct opposite" of the Hegelian. It is more an approach to reality than a methodology in the sense that we have been applying the term elsewhere. Marx observed that the "mystified" form of the dialectic, as employed by Hegel, merely glorified the status quo; however, in its "rational" Marxian form, it exposes the innate corruption of the present order.

At times Marx speaks of the self-evident, as when noting the law of the relationship between the efficiency and duration of labor-power.<sup>86</sup> At other times he employs

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<sup>86</sup> ibid., p. 448.

deduction, as in the case of the "infallible law" of the reduction of employment brought about by the introduction of machinery.<sup>87</sup> Such laws follow by reasoning from the Marxian postulates; they are never empirical.<sup>88</sup>

Often they are presented as natural laws, as in the case of the law of variation of work:

But if, on the one hand, variation of work at present imposes itself after the manner of an overpowering natural law, and with the blindly destructive action of a natural law that meets with resistance, at all points, Modern Industry, on the other hand, through its catastrophes imposes the necessity of recognizing, as a fundamental law of production, variation of work, consequently fitness of the labourer for varied work, consequently the greatest possible development of his varied aptitudes. It becomes a question of life and death for society to adapt the mode of production to the normal functioning of this law...<sup>89</sup>

What are the qualities that Marx assigns to his laws? In the first place, they will, in general, retain the strong law characteristics, at least to the extent that he insists that capitalism (and any other historical mode

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<sup>87</sup> ibid., p. 483.

<sup>88</sup> cf. ibid., pp. 21-24.

<sup>89</sup> ibid., pp. 533-4; cf. p. 393.

of production) has its own peculiar laws particular to itself. At one time he states that the capitalist, in purchasing "labour-power," "acts in accordance with the 'eternal laws' of the exchange of commodities."<sup>90</sup> At another, in discussing the creation of a surplus of labor population in accordance with the "law of the progressive decrease of the relative size of the variable capital," he notes how laws must change according to the nature of production:

This is a law of population peculiar to the capitalist mode of production; and in fact every special historic mode of production has its own special laws of population, historically valid within its limits alone. An abstract law of population exists for plants and animals only, and only in so far as man has not interfered with them.<sup>91</sup>

Laws are, in general, deterministic, necessary, coercive.

So Marx affirms of the laws of production:

It is not a question of the higher or lower degree of development of the social antagonisms that result from the natural laws of capitalist production. It is a question of these laws themselves, of the tendencies working with iron necessity towards inevitable results.<sup>92</sup>

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<sup>90</sup> ibid., p. 216.

<sup>91</sup> ibid., pp. 692-3.

<sup>92</sup> ibid., p. 13.

He also emphasizes that the "immanent laws of capitalist production" are "felt by each individual capitalist as external coercive laws."<sup>93</sup> The force of these laws seems to be applied both from within and without.

Wetter indicated how Engels had emphasized the fact that all laws are historic, even in the realm of nature. Engels stated that

...even the universal, absolute, eternal laws of Nature...are essentially historical laws, historic in the sense that they emerge in different ways, under different conditions, at different stages in the development of Nature.<sup>94</sup>

Later emphasis, however, has been on the objective character of laws rather than their historic aspect.<sup>95</sup>

The same attachment to this philosophy has persisted until the present. Stalin's last major work, Economic Problems of Socialism in the U.S.S.R., contains four

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<sup>93</sup> ibid., p. 649.

<sup>94</sup> V.M. Kaganov, "On the Interconnection and Inter-determination of Phenomena in Nature, Problems of Philosophy, (Philosophical Institute of the Academy of Sciences of the U.S.S.R., 1949), No. 1, p. 132; cf. Wetter, op. cit., p. 374.

<sup>95</sup> cf. Wetter, op. cit., pp. 374-5.

sections, one of which bears the subtitle: "Character of Economic Laws Under Socialism". It appears that he found it necessary to insist that "economic laws have an objective character, independent of the will of man,"<sup>96</sup> and that the party was not capable of interfering with them in any way whatsoever. He stressed that:

...even under socialism economic laws retain their objective, necessary character, just as the laws of Nature do. As with the latter, so also with the former, man can do nothing but recognize them, utilize them by guiding their operation into the particular channels willed by him, and "impart a different direction to the destructive action of some of the laws"; but to destroy or create economic laws is not within his power.<sup>97</sup>

The Soviet Academy of Sciences then began to implement Stalin's doctrine, holding that

...philosophers must pay greater attention to the laws of social development and their employment in the interests of society, and to overcoming subjectivist conceptions of the laws of development in Soviet society; fuller consideration must also be given to the relation between general sociological laws and the specific laws of development of

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<sup>96</sup> Wetter, op. cit., p. 202.

<sup>97</sup> J. V. Stalin, Economic Problems of Socialism in the U.S.S.R. (Moscow, 1952), p. 8; cf. Wetter, op. cit., pp. 202-3.

individual groupings, and similarly to the relation between objective laws and the conscious activity of men.<sup>98</sup>

Thus the practical importance given to the concept of law in Soviet academic and socio-political life.

Soviet writers are, in general, staunch supporters of the traditional concept of causality. They object to merely mechanical explanations of causality, as well as the modern substitution of "functional relationships" for the causal principle. Only "superstitious peasants," they say, would argue after the fashion of post hoc, ergo propter hoc.<sup>99</sup>

It is by now clear that the finality of the Marxian law is to explain how all things function in accordance with the dialectic. In addition to this explanatory function, Marxists consider that the "scientific prediction of future developments"<sup>100</sup> is one of their main achievements, because "Law is the permanent (the enduring) element

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<sup>98</sup> A. N. Nesmeyanov, "The Tasks of the Academy of Sciences of the U.S.S.R. in the Light of the Resolutions of the XIXth Congress of the C.P.S.U.", Vestnik AN SSSR, 1953, No. 3, p. 18; cf. Wetter, op. cit., pp. 205-206.

<sup>99</sup> cf. Wetter, op. cit., pp. 375-381.

<sup>100</sup> Wetter, op. cit., p. 316.

in phenomena." <sup>101</sup> Reference has been made above to the use of the dialectic as an epistemological method, as well as to the political opposition towards the illicit use of laws to control the economy.

Modern Marxist economists, like Dobb, criticize the classical as well as the Austrian versions of economic law. First, they insist that law means different things under different economic conditions. According to Dodd, theoretical laws are limited in their applicability either to specific economic systems (capitalism or socialism); or to either system, given certain preconditions (like economic equality.) <sup>102</sup> The Austrian laws, on the contrary, were held to be applicable universally under all conditions.

The Marxists also argue that a law must be expected to have different effects in a world of foresight than in one of uncertainty. <sup>103</sup> They also claim that all activity

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<sup>101</sup> Lenin, Philosophical Notebooks, p. 126; cf. Wetter, op. cit., p. 317.

<sup>102</sup> Maurice Dobb, On Economic Theory and Socialism: Collected Papers, (Routledge & Kegan Paul, Ltd., London, 1955), p. 11.

<sup>103</sup> Maurice Dobb, Political Economy and Capitalism, Some Essays in Economic Tradition (International Publishers Co., Inc., New York, 1945), p. 220. Original edition: (George Routledge & Sons, Ltd., London, 1937).

which primarily depends on "unconsciousness," ignorance, or anarchy must betray a tendency towards disequilibrium, rather than the reverse.<sup>104</sup> It would be thus illogical to expect to find any sort of inherent regularity in the anarchic markets of capitalism, as exists in the pre-planned socialist distributive system. Thus Dobb stated:

Our conclusion, therefore, seems to be that the laws which will rule a socialist economy will be different in essential respects from those which rule a capitalist economy, for the reason that factors which are, ex hypothesi, unknown and unknowable to those who make the ruling decisions in the latter will be known in the former.<sup>105</sup>

Laws in the socialist economy will, therefore, be more oriented towards the technical aspects of fulfilling the stated objectives of the directors of the economy, than towards coping with the individualized consumer valuations which typify a capitalist economy. In the latter system, the function of laws is to state how men will behave, given the conditions of nature, preferences, and technology. Under socialism, however, laws are more indicative of how public goals, rather than private ones,

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<sup>104</sup> ibid., pp. 80, 22.

<sup>105</sup> op. cit., p. 314.



will be attained. Economic laws therein indicate the technical path toward the socially determined objectives of society.<sup>106</sup>

It is interesting to note how such a concept has been developed at length by Lowe,<sup>107</sup> who, though not writing in a Marxist vein, has proposed the notion of instrumental laws. Lowe holds that the classical laws are valid only in the purified atmosphere of their own microcosm, wherein the only variable permitted is a change of tastes. However, when macro-goals (as full employment, equality, etc.) are superimposed upon an economic system, many types of modal behavior are possible (instead of mere maximization) and thus the system is no longer determinate.

Lowe's solution is to determine a set of instrumental laws which will invariably lead to the goals decided upon by the political process. This can be accomplished only

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ibid, p. 316.

Adolph Lowe, On Economic Knowledge, Toward a Science of Political Economics, 1st ed., (Harper and Row Publishers, Inc., New York, 1965).

after consideration of all the relevant variables, as laws of nature, engineering rules, and generalizations about socio-psychological relations, in such a way as to deduce the causes which will induce the postulated end. Consideration must be taken of all the cause/effect, means/end, premise/conclusion, stimulus/response relationships that will be relevant when the barrier of ceteris paribus is lifted, and many politico-social conditions taken into consideration.

From this analysis will emerge at least some plausible conclusions that are confirmable in the real world. There will be sufficient information at least for guidance, if not for prediction. The analysis depends on the introduction of successful control measures, which are designed to induce the behavior postulated.

Here we find a new function for law. Not only can a law be considered as a "body of concrete truth,"<sup>108</sup> but also as an "engine" for the discovery of truth. Economics is still considered as a nomothetic science, in search for "confirmable regularities of motion."<sup>109</sup>

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<sup>108</sup>Lowe, op. cit., p. 165.

<sup>109</sup>ibid., p. 160.

In no sense do we include Lowe's concept of law with the strong Marxian variety; however, it is interesting to note how he and Dobb have both journeyed to the same junction point. The instrumental concept of law has also occupied a prominent position in the discussions of the philosophers of science.<sup>110</sup>

### Strong Laws in Retrospect

We thus conclude our survey of the strong laws of economics. Whether they are labeled as inexorable, eternal, or apodictic, their universal characteristics are clear from the writings of the authors that produced them. Never is any attempt made to explain them away or to limit their application, once the conditions to which they apply have been set.

In their own setting they are universal, causal, necessary, and, at least clearly in the Austrian case, teleological. Much lesser emphasis was put on quantifiability or verifiability.

It can further be said that these laws cannot be wrong, once one accepts the package of philosophy upon

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cf. Nagel, op. cit., pp. 64-67, 129-140.

which they are based. Given the Marxian base of the dialectic, with its manifold accessories, the laws of historical materialism follow. Given the Austrian conception of human action and valuation, another set of laws follows. One may validly dispute the validity of the world-views on which they are based, but not the conclusions themselves.

These two groups, more than any other, have made of economics a nomothetic science, law being the basis of explanation, prediction, and deduction more than in any other sector of economic thought.

## CHAPTER VII

### ECONOMIC LAW TODAY - POSTVIEW

The laws of Political Economy can no more be violated than those of physical science.

Arnold Toynbee,  
Lectures on the Industrial  
Revolution of the 18th  
Century in England

<sup>1</sup> op. cit., p. 29.

Our study of the various meanings of economic law is now complete. It has been the first time, to the knowledge of the author, that the thinking of economists of all persuasions on this topic has been brought together in one place. It is hoped that economists will now be able to analyze and compare the various concepts and to draw some generalizations from them.

In the past others have attempted to review economic laws, but never in a complete manner in a study primarily devoted to law. Jevons, Cairnes, and Neville Keynes long ago assembled many useful observations as part of larger epistemological studies. Flux devoted two special articles in Palgrave's Dictionary. Later on, as we have seen, Haavelmo and Knight each contributed an overview of the econometric and neo-classical laws respectively. Hutchison discussed at length the difference between the a priori and a posteriori viewpoints of law, and Robbins carefully outlined his means-end philosophy. Perhaps Mises, more than any recent economist, has contributed more than others to the subject, though not specifically under the point of view of law or under a single heading. The epistemological commentaries of Schumpeter, Fraser, Rollo, or Higgins have touched on laws only in passing, as have most of the historians of economic thought.

No one, however, has really come to grips with the entire subject of economic law and attempted to consolidate

and logically organize the many contradictory points of view that economists have held about economic laws. We have seen how they have characterized them in terms ranging from "compendious statements of numerical results," to mathematical formulas, to the laws of nature or of conduct or of history. Laws have borne descriptions as varied as "misapplied metaphors" or "guesses" on the one side, to apodictic and inexorable verities on the other. At one point we are told of pseudo-laws; at another that without laws there would be chaos in the economic world. For some theorists no law can ever be invalidated, while others saw the need for men to intervene to modify the effect of laws. For some, economic laws were identical with those of the natural sciences and depended upon the same procedures of investigation. For others, they were developed by human thought processes independently of all experimentation. For still others, economic law was not a meaningful expression.

There existed a need to understand the reasons why there has been such a wide range of opinions. To accomplish this it was first necessary to sift out what has been said on the subject, a task that had to cover the writings of economists for nearly two hundred years. No one has yet attempted to perform this task and to search out and consolidate

the contributions of all the economists who have written on the subject. For this reason it has always been difficult for an economist to grasp the full implications of the many types of economic law, or even to form a comprehensive overall judgment about the meaning and importance of law for our science.

It was to fill this void in the literature that this paper was conceived. Its object has been to seek out and bring together in one place not only what economists of all stripes have had to say about laws, but also to write down their attitudes, their convictions, and the implications of their points of view. We can now really understand the difference between the multiple categories of law, whether empirical, historical, econometric, classical, mathematical, Austrian, or Marxist. Our study also takes into account those economists who have not seen fit to utilize "law" in their analysis.

This study has also gone into the essential information on the historical antecedents of law - the natural law and its ramifications, as well as the Newtonian and Darwinian laws. It also has attempted to recapitulate the opinions of the philosophers of science on the subject, as well as those of the social scientists other than economists who have been writing about law. All this should assist in understanding the place of law in our science and how it stands relative to other branches of social science.

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It was felt not to be enough merely to classify the different conceptions of law in the style of a catalogue. Some more logical basis was needed in order to organize the large amount of material in such a way that it would eventually be helpful for analysis.

After much consideration it was decided to divide the laws of economics into four major categories, which were called for convenience weak, normal, and strong laws, with a separate chapter to synthesize the opinions of economists who had objections to the meaning or current usage of law in economics. We could have contented ourselves with the usual, and more simple, breakdown into empirical and theoretical law, or what Fraser has called the enumerative and universal aspects of law. In fact, he would have us attempt to synthesize the two aspects rather than departmentalize them.<sup>2</sup>

Or following Briefs, we could have made a threeway split: into laws derived by each of the three methods: the method of isolation, holistic, and mathematical, with the econometric later separated from the mathematical. Briefs, as we have noted, made methodology the criterion for his analysis. This solution would have presented us with obvious difficulties. For one thing, we would have to classify Hutchison, the leading exponent of logical positivism, in the same category with the Institutionalists; they obviously

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<sup>2</sup>op. cit., p. 53.

do not hold similar ideas on law. How would we be able to distinguish Friedman from Marshall or Mises; in Briefs' scheme they are all isolationists, whereas they have been shown in our study to exhibit the three diverse outlooks upon law: non-law, law as tendency, and absolute law. To overcome these difficulties, it was decided that laws could be much more logically classified on the basis of the underlying assumptions and philosophy of the authors, rather than on the apparent method that the latter have adopted.

Our breakdown has the advantage of accenting the many attitudes that economists have held towards law; these attitudes have ranged from a disinterest in the relevance of law to an almost total dedication to the unique place of law in the overall structure of economic science. It is proposed that laws are weak, if they are meant by their author to reflect the empirical and transitory regularities of a changing world. Included here are the statistical regularities assembled by a Hutchison, the empirical laws of demand formulated by a Schultz or a Moore, the macro-economic regularities described by Okun's Law. On the contrary, laws are strong if they are considered to be universal and unerring under all conceivable conditions,

such as their exponents consider the Austrian laws of value or the laws of the Marxian dialectic. Finally, laws occupy the midway normal position if they are considered to be applicable only under certain limited circumstances, as under conditions of perfect knowledge of or perfect competition, and suffer exceptions when such conditions do not prevail. Here would fall the classical supply and demand.

Our fundamental presupposition, however, has been that the attitude of an economist towards law ultimately takes root in the philosophical subsoil of his doctrine. In practice, this doctrine is composed of the assumptions and postulates upon which he constructs his analysis. Thus whether or not he would see fit to designate as laws the generalizations discovered in the course of his studies was really a dependent variable, directly stemming from the beliefs he holds, which are controlling in every case.

Each group of laws reflects the set of assumptions upon which a particular piece of analysis is based, including the philosophical basis, the meaning of economics adopted or implied, the methodology employed, and the purpose of the laws in question.

Our analysis attempted to demonstrate that those economists who believed in, that is, made directly relevant to the case in question, a certain fixity about the nature of man and the human thought processes, who had faith in the objective validity of true statements, who utilized formal deductive reasoning, who commenced their investigations with the study of individuals rather than of societal groups, and who defined economics in a meticulous way, would be more likely to hold strong convictions about laws and to posit a viable system of laws. Such a system would hopefully survive, at least among their intellectual heirs. On the contrary, other economists, who were noncommittal about these matters or who expressly denied them, would not be advocates at least of strong economic laws. The first grouping would be likely to consider economics as a nomothetic science; the latter would not.

Our survey began with groups such as the Institutionalists, who, by and large, set about to study the modern world as it is in the flesh, with little inclination to give relevance to the above philosophical points. In general, they were not interested in economic methodology

and definitely did not leave an inheritance of economic laws.

Strangely, the intellectual vanguard for those who were to undermine the traditional corps of truthful statements, as laws were considered, was led by the generally orthodox Milton Friedman and philosopher Karl Popper. The former aroused consternation among a large sector of the profession by his assertion that assumptions in economic analysis need not be realistic, and what is more, that propositions only have value if they are useful and only for the time that they are. Popper's theory of conjectural knowledge precisely posits a philosophy wherein all knowledge is to be considered as an "objective" tool for developing new propositions; we must no longer attempt to assign "subjective" truth-value to such propositions. This line of reasoning is here proposed as the very antithesis of economic laws, which, contrary to Popper's ephemeral propositions, have traditionally formed a permanent corpus of valid doctrine, always ready on the shelf for application or consultation.

On the reverse edge of the spectrum from Popper's conjectural knowledge, we have seen two contrary economic philosophies, which rest upon entirely distinct sets of rigid philosophical assumptions. The Marxian analysis poses a precise theory of the nature and dialectic movement of all things, as well as of the relationship of social superstructures to the economic base of production. This is associated with a carefully specified body of doctrine covering categories such as the nature of value, including surplus value, and the class struggle. It is from such postulates that it posits a formidable system of inexorable law. We have even seen the political practitioners of Marxism utilize the concept of law in their indoctrination messages; in fact, the whole of Soviet society is ideologically oriented according to a narrow version of orthodox law.

On an entirely different plane, the Austrians posit a universal philosophical system based upon what they consider the essential component of every single human action: how in each decision he makes, man necessarily

chooses the alternative that he believes most likely to improve his circumstances. Economics as a science is clearly delimited by this aspect of choice inherent in all action. Given this basic intuition and some secondary empirical postulates, they have constructed a system of a priori regularities which they hold to be universal laws. This system implies belief in the unchanging nature of man, as well as his consistent ability to engage in valid discursive reasoning. Once again, the laws follow logically from their postulates.

In between these extreme positions, we have reserved two intermediate categories for what were designated as weak and then normal laws. Our presupposition continues to hold: that in proportion as the fundamental assumptions of any system become more rigid, the firmer the notion of economic law, and vice versa.

Thus the weak law group includes pure positivists like Hutchison, as well as some historical and macro economists. As was observed in our review of their philosophy, the positivist doctrine has direct bearing on the nature of economic propositions. In its purest version it recognizes only knowledge derived from sense experience. Anything that smacked of "verbal magic" was rejected as metaphysical, as an illusion productive of nothing more than "seductive fallacies." Reasoning in the form of deductive syllogisms was a rationalistic practice

that confused logical meanings with factual meanings. Thus positivism limited the method by which the economist chose to reason; in practice, he was restricted to empirical inductive processes.

It is clear that the laws of economics, derived according to the positivist methods, could not possibly describe whatever might be universal or necessary about the actions of men. Whatever regularities are discovered refer to ad hoc factual situations that change with the passing of time. Nor do the positivists claim that science can do any more than organize the verifiable facts of experience. Whatever refers to cause and effect, ends, or essences is merely linguistic. It is thus that the positivistic laws must be weak by their very nature.

In assessing the weak law status of the historians, we realize that we are attempting to generalize somewhat heroically about a great many authors of distinct philosophical bent, ranging from Hegelians to positivists. Consequently, one cannot speak of the "assumptions" of the historians per se. Perhaps the simplest way to attack this problem is to adopt a pragmatic conclusion by observing, with full hindsight, that none of the famed historical laws (other than the Marxian) have survived the test of time. This is in profound contrast with the normal and strong laws, most of which are still extant in the textbooks. The non-Marxian laws were weak in point of fact, if not always necessarily so.



The reason for this demise we attribute to the insufficient philosophical base on which these laws were constructed. The attempt to generalize about events principally characterized by their uniqueness requires some form of logical cement to unite them. For those other events, supposedly units in some overall theory of change, a strong unifying force must be postulated. Most of the schemes proposed, for example, Breysig's Law, were entirely lacking in philosophical support. Even the process of understanding, supposedly the specific method of the historians, serves more to single out individual differences rather than cement diversity. Thus we must conclude that, for want of a sufficient foundation, the historical laws could never be universal or immutable.

The econometric laws are also generally lacking in substantive philosophical assumptions. In certain cases, as in Schultz's application of the indifference curve analysis to the derivation of empirical demand curves, economic theory was transferred, lock, stock and barrel, so to say, to his empirical findings. Thus a case might be made for rating his econometric laws more strongly. But, by and large, the profession has had to lament the general lack of theory in the practical development of its models. The basis for most of them is approximate generalizations, not conceptual principles. What econometric law or model does not have to be reworked period after period, year after year?

Add to this the weaknesses fomented by the methodology inherent in the econometric process itself. The selection of the variables, the functional form, the meaning of the parameters is, in large part, trial and error guesswork. In fact, all models are to a greater or lesser degree remote from reality. The nearly metaphysical assumptions required by the theory of n-dimensional space, the very heart of probability theory, is subject to uncertain interpretation. Thus once again we have a case wherein both the theoretical and the operational postulates impede the formulation of any but temporary, uncertain generalizations.

Passing on to the macroeconomists, we have noted that few of them wholeheartedly even use the term law. We attribute this to the lack of a firm theoretical foundation in many cases; we have seen how the basic macroeconomic postulates have been described as truisms. By no means is it denied that Maynard Keynes's analysis was constructed on what he considered a solid theoretical foundation, yet he himself offered his laws with a certain reserve. And then we can conclude, pragmatically, that macrotheory has not come forth with any universal laws; the reason, for want of an adequate philosophical ensemble.

In turning to the normal law economists, we have noted that they often based their analyses on some fundamental thesis as, for example, the "simple and obvious system," the utilitarian premise, or some form of utility maximization. Some

force or other was present, around which they would organize their analysis. They went further than the weak law economists in attempting to present a clear definition of the subject matter of economics; they adopted a rationalist deductive system, and often accepted the implications of the traditional causality. Thus they did postulate a set of laws descriptive of the economic world which have greatly withstood the test of time.

Their principal failing was that they made of economics a study generally limited to some form of money activities or strictly to the material aspects of human life. They thereby eliminated many of the more important human aspirations from their reasoning, considering them to be constant or inapplicable. It was thus that the laws they evoked could not be truly universal, but rather represented some underlying tendencies toward a normal or ceteris paribus condition. The fact that they were repeatedly obliged to safeguard their reasoning from erratic irregularities made them have recourse to some unreal assumptions (perfect competition, perfect knowledge, etc.) that only limited the applicability of their laws, forcing them to seek out explanations for the non-conforming exceptions.

It was with the normal law group that we noted a distinction between the individual economic laws themselves and a general belief in an overall natural law that supposedly provided guidance for economic affairs. It seems that

this other category of law stemmed directly from the natural law assumptions of the earlier authors, predisposing them to discern something more than the mere activities of individual agents in the operation of an economy. This spirit, however, gradually faded away, and after the turn of the twentieth century all but disappeared from the textbooks.

In concluding this portion of our resume, we feel confidence in reemphasizing our presupposition that the strength of the economic laws proposed by an author depend primarily on his philosophical predispositions. This has been borne out in the various categories of law that we have examined. Only those authors who laid the groundwork of a strong philosophy and methodology have been able to claim that the laws which emerged have the strong qualities of being universal, causal, necessary, true, and for some, teleological. The Marxian and Austrian laws logically possess these qualities, not primarily because their authors make such a claim, but because those laws follow deductively from their postulates in a universal, causal, and necessary manner.

The normal law authors at times did make strong claims, yet at other times were busy explaining away the exceptions to their laws. We had thus to infer that in their case the strong law qualities were present in some normal sense; either there exists a tendency for market

values to converge upon such normal values, or the ceteris paribus proviso discounts the effects of non-economic and other interfering factors. The weak law authors, except perhaps for some of the romanticist historians, never claimed universality or necessity for their laws. More often, they were concerned with the verifiability and quantifiability of these generalizations; causality was limited to some notion of correlation. Often their positivist predispositions prevented them from seeking out a more theoretical foundation for their laws.

But are these discussions about classifications and qualities of laws merely theoretical shop talk? Before bringing to a close our survey of economic law, we should determine whether or not there are grounds for economists to hold that laws are still a meaningful concept. Should we or should we not believe in laws?

We have seen that there is no longer a universal penchant for naming all regularities as law, as in the era of the Newtonian, the Darwinian, or the Spencerian laws. The grand flair for finding laws everywhere, so characteristic of the nineteenth century, is gone. No mainstream economists, of the caliber of Bates Clark or Neville Keynes, today hold aloft the flag of law; in fact, the more recent generation of Schultz, Knight, and Douglas is passing to history.

The pendulum has seemingly swung over to the opposite end with the publication of Friedman's seminal article, now twenty-five years away. Instead of considering the truths

of economics to be best expressed in the form of abiding laws, the trend is now towards usable, ad hoc, discardable propositions. These are not designed to reflect truth in se, but rather to serve as an objective means of developing newer propositions. The trend has certainly been away from emphasis upon the hidebound restrictions of a philosophy that does not react to change, towards the restructuring of this world according to the insights offered by a new constructive rationalism. The new spirit has not as yet provided a permanent philosophical foundation on a par with the old utility. Positivism, still the dominant methodology of our times, is more of a negative creed, prohibiting certain worldviews and methods, rather than actively contributing to a deeper understanding of reality.

On the other hand, we have reviewed some economic doctrines as replete with law as any of the classics ever were. The Marxist and the traditional Austrians make of law the very sum and substance of economics. Econometric writers talk of law. Theil, for example, frankly introduces his textbook as follows: "Econometrics is concerned with the empirical determination of economic laws."<sup>3</sup> Lowe has propounded new instrumental methods of making macro-goals compatible with law. All the members, without exception,

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<sup>3</sup> Henry Theil, Principles of Econometrics (John Wiley and Sons, Inc., New York, 1971), p. 1.

of a long line of methodologists (Stuart Mill, Jevons, Cairnes, Neville Keynes, Hutchison, Fraser, Mehta) unani- mously have expressed a favorable posture towards economic law. The philosophers of science, especially social sci- ence, whether devotees of positivism or not, are generally believers in scientific law of some form. Many, of course, believe primarily in laws of probability.

Notwithstanding these many signs of interest in law, its future in economic science is not at all assured. A pro- tracted search of the modern literature reveals, over and beyond what we have already noted, a general lack of interest in economic law. One could cite the works of Mishan as an example.<sup>4</sup>

On the theoretical side, we have seen that Popper has called laws nothing but guesses. Hayek believes that the economic studies of the future might be of too complex a na- ture for the traditional notion of law; in fact, he went so far as to say: "...The prejudice that in order to be scientific one must produce laws may yet prove to be one of the most harmful of methodological conceptions."<sup>5</sup> This, coming from an otherwise staunch supporter of traditional law, makes one pause to ponder very seriously the future epistemological requirements of economic science. Must we

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<sup>4</sup> E.J.Mishan, Cost-Benefit Analysis: An Introduction (Prae- ger Publishers, New York, 1971).

<sup>5</sup> Studies..., p. 42.

develop some new tool to describe complex reality, and what relationship will it have to our notion of law? Hayek's opinion is reinforced by that of another member of the Austrian group, Ludwig Lachmann, who points out how economists in the past have neglected the impact of changing knowledge in altering planned courses of action. This ever-present uncertainty compounds the difficulties experienced by the neoclassical promoters of laws. Writes

<sup>6</sup>  
**Lachmann:**

...We have to distinguish between the unknowable future and the knowable past. In neoclassical thought this problem does not arise since one is ostensibly engaged in finding "laws" applying as much to the one as to the other. But there are the wellknown puzzles among which the problem of ceteris paribus, our inability to specify all the conditions under which the laws are to hold, takes prominence. Austrians simply have to face the fact that the autonomy of the mind precludes determinism: If knowledge shapes action and action shapes the human world, the future is unpredictable.

Thus it is clear that any optimism about the future status of law in economic epistemology must be well guarded, both from the practical as well as the theoretical standpoint. Unfortunately, the tide of epistemological research in economics is at a low ebb, which means that the needed studies in this area are not forthcoming.

It might be added that the chances for a resurgence of law are intimately tied to the fortunes of logical positivism

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<sup>6</sup> Ludwig M. Lachmann, "An Austrian Stock-Taking: Unsettled Questions and Tentative Answers," Unpublished paper prepared for the Symposium on Austrian Economics, 1976, pp. 19-20.



as a philosophy. If, as conceivably could happen, it has already passed its zenith, perhaps its successor might allow for an epistemology with at least a window open again to beyond-the-empirical.<sup>7</sup> Until such time, the prospects for law seem mostly limited to some empirical correlations.

With this not very optimistic (as far as believers in law are concerned) forecast of the future of law before us, what can be said of the claim, so often made, that economic laws must be obeyed because they have sanctions? Is it correct, in the words of Toynbee, that "Man need not crouch and shiver, as he did in the past, under the shadow of an inexorable law"?

Until the epistemology of the future is unveiled before us, we can answer that such a question only has meaning for those who believe in the validity of the stronger classification of laws. We have seen how Soviet leaders have had to restrain the young idealists who held the belief that the omnipotent state could accomplish whatever feat it might desire, notwithstanding the inexorable laws. For the neo-classical economist, it is inevitable, insofar as laws are necessary, that they will continue in effect under all conditions. This translates into practical programs, such as not interfering with laws by legislating price controls; for example, maximum prices artificially imposed will bring about shortages, or minimum prices will provoke an excess

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<sup>7</sup> Lectures..., p.176.

supply of a factor of production.

Under this mode of thinking the guns/butter dichotomy is a clear alternative. All additions to the public sector (at least as regards otherwise employed resources) must affect adversely the private sector.

For those economists, however, who adhere to weaker versions of law, it is obviously senseless to talk of sanctions. For them laws describe changing events, not some unalterable reality. To insist that something cannot undergo reformation is contrary to the basic postulates of this group.

Thus do laws have sanctions? It depends on what you mean by law.

We can utilize the same criteria to answer another question. Is it true that the notion of law is essentially tied to conventional microeconomic theory; and as the latter seemingly dwindles in relative importance, does not that signify the demise of law? No attempt will be made here to prophesy the future of microtheory. But it is clear that its affinity with law derives from our oft-repeated proposition that it is based on a series of a priori postulates, whereas macrotheory is not, at least not to so strong a degree. In our terms, microtheory is a strong theory and thus begets strong laws, the reverse being true of macrotheory. Thus the answer to the question is definitely affirmative, all predictions aside. Fraser, from another point of

view, seems to agree. "Pure theoretical economics," he says, "is a 'bourgeois' science, in the sense of being most at home in the price economy which has hitherto been associated with bourgeois civilization."<sup>8</sup>

In his presidential address to the American Economic Association Robert Gordon<sup>9</sup> outlined many of the deficiencies of micro (as well as macro) theory, especially with reference to the relevance of theory to today's world. His talk has special implications for what we have been describing as normal and weak laws. Can they be considered both relevant and durable descriptions of economic forces in the imperfectly competitive world of today? The Austrian and Marxian laws, by their own terms, do not depend for their validity on the presence of competition in the real world. The normal laws, however, suffer because of their

<sup>8</sup> Op. cit., p. 44.

<sup>9</sup> Robert Aaron Gordon, "Rigor and Relevance in a Changing Institutional Setting," American Economic Review (March, 1976), Vol. 66, No. 1, pp. 1-14. Presidential Address to the 89th meeting of the American Economic Association, Dallas, Texas, December 29, 1975.

restrictive assumptions, and thus present a challenge in assaying the future of microeconomics.<sup>10</sup>

There is one question that we have sidestepped throughout the course of our discussion. Is it not possible that the generalizations of economics could be more usefully described by means of another term than law, some term which does not have the pessimistic nineteenth century connotations attached to it? Would another term describe the regularities discovered in economics as accurately as law, but without the disagreeable connotations that are associated by some with law? Although an investigation into the use of such other terms was specifically excluded from

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<sup>10</sup> Whether microtheory can be strengthened by increased axiomatization cannot be predicted here and now. However, Morgenstern, who has fully recognized the pitfalls in mathematical approaches to economics, has stated that "economics cannot be advanced decisively without proving fundamentally new mathematical theorems." (Oskar Morgenstern, "Limits to the Use of Mathematics in Economics," Mathematics..., J. E. Charlesworth, (Ed.), p. 18). Or again: "The axiomatic method is simply a superb technique for summarizing our knowledge in a given field and for finding further knowledge deductively." He holds that scientific law is written in the language of mathematics, and he observes that the same will happen with reference to the laws of society, if such laws exist. Here is indicated a possible avenue for the strengthening of theory, and at the same time enhancing the place of law in economics. However, only time will be able to tell if this is to happen. Cf. "Thirteen Critical Points in Contemporary Economic Theory: An Interpretation," The Journal of Economic Literature (December, 1972), Vol. X, No. 4, pp. 1163-1189.

our study, it might be stated that there seems to be at present no other substitute that would assure universal assent by the profession. None appears in the literature.

Proposition is often used; however, it is a weak term and is replete with positivist connotations. Doctrine seems too strong an alternative, and has few adherents in practice. Principles seems too formal, and theorem too mathematical. Perhaps the use of generalizations might be acceptable.

To this writer it would seem most useful to have two terms, one to correspond with the a priori type of laws that we have described as strong or normal, and another to be associated with empirical regularities, which are of an entirely different class than the former. Such a dual terminology would reduce much confusion in the literature and would be more conducive to a clearer understanding of what an author is implying when he uses a term like law.

One of the objectives of this study has been to serve as a stimulus to the writer and to others to devote time and effort towards resolving some of the epistemological

problems of our science. For example, there is no agreement even on the fact that economics must logically produce some sort of generalization, let alone calling it law. There are many epistemological problems which have been more or less lying dormant, awaiting the attention of a new generation of serious students. We have already mentioned the various other terms that are used, often haphazardly and without polish, in lieu of law. An analysis of these others should be made, and a grand synthesis attempted, perhaps in fulfillment of Knight's dream of a catalogue of all the laws of economics. The whole problem of the meaning of truth in economics merits the attention of these scholars. Throughout this study we have made reference to many conflicting opinions and theories, which must eventually be clarified.

We have seen that the historians and other social scientists are perhaps far out ahead of the economists in investigating many of these problems. However, as they themselves admit, they have harvested very little fruit to date. It is to be hoped that economists will join ranks with other students of the social sciences

in attempting to contribute to the solution of problems, like the necessary and sufficient conditions for the laws of economics, the meaning of economic covering laws, and the difference in general between "human" laws and the laws of science.

It must also be pointed out that, even with reference to this study of economic laws, several aspects of the overall problem have not been taken up. For one thing, this study has merely recapitulated the doctrine and convictions of others, including the refutations made by economists of the various positions different from their own. No attempt has been made to analyze what a law should be, perhaps with the suggestion of some universally acceptable definition of economic law. The whole matter of the individual laws of economics has been bypassed. Many excellent studies of individual laws have been made; these should be summarized and classified. Finally, there are no norms for assessing the validity of the many categories of postulates that we have been describing. It is thus quite clear that the economic epistemologist has much work lying in store for him. It is to be hoped that many young scientists will take up this task.

We have now come to the end of our journey through the complex terrain of economic law. It is hoped that this study has helped to shed some light on the problems of human life and will spur others to continue to search out the true meaning and significance of lawfulness in the affairs of economic man. We close with the advice of Reverend Wicksteed:

The economic laws must not be sought and cannot be found on the properly economic field. It is on the vital field, then, that the laws of economics must be discovered and studied, and the data of economics interpreted. To recognize this will be to humanize economics." <sup>11</sup>

LAUS DEO

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<sup>11</sup>op. cit., p.783.



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