

WILLIAM E. HEARN AND CLASSICAL
POLITICAL ECONOMY,

by

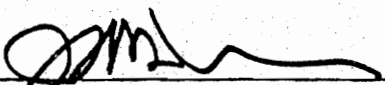
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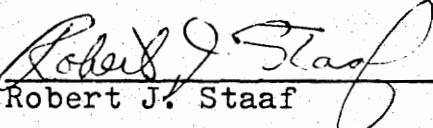
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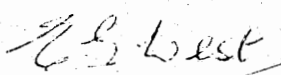
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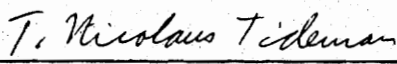
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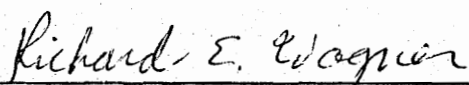
APPROVED:


James M. Buchanan, Chairman


Robert J. Staaf


Edwin G. West


T. Nicolaus Tideman


Richard E. Wagner

May, 1977

Blacksburg, Virginia

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PREFACE

Although his name is not familiar to today's student of economics, in his own lifetime William Edward Hearn's reputation as an economist stood high. In the last century Hearn's Plutology: Or the Theory of Efforts to Satisfy Human Wants, drew high and unqualified praise from W. S. Jevons, H. Sidgwick, A. Marshall, and F. J. Edgeworth.¹ And in the first part of this century the Plutology continued to be read respectfully--it was praised by F. A. Hayek as late as 1936, for example. Admiration by economists of such stature in itself warrants an investigation of the Plutology--and that Hearn did respected work in related fields cannot but add interest to his work in political economy. Hearn enjoyed an international reputation, not only as an economist, but also as a jurist and as a political theorist. His Government of England, for example, was admired by Herbert Spencer and by A. C. Dicey. Hearn was no ordinary professor of supply and demand. It is therefore the purpose of this essay to disinter Hearn as a political economist and to relate his work in that field not only to his other work but also to prior and subsequent work of others in economics.

¹William Edward Hearn, Plutology: Or the Theory of Efforts to Satisfy Human Wants (Melbourne: George Robertson, 1863). References to Hearn's work made by the men mentioned in this paragraph can be found below in Chapter II.

An appreciative understanding of the Plutology is not likely to come to one familiar with only modern economic analysis and its development. Chapter I of this study was therefore written to introduce the reader to Hearn as a "Smithian" as opposed to a "Ricardian" classical economist. Hearn's political economy, developed and written in the middle of the nineteenth century, brings out elements of the "Smithian" approach which were forgotten as neoclassicism stiffened into orthodoxy.

In Chapter II, an account is given of Hearn's work and reputation. The respect which this remarkable man enjoyed and the subsequent neglect which he suffered owe to an assemblage of circumstances.

The novel design of the Plutology is explained in Chapter III. The merits of Hearn's approach are illustrated in his success at finding within his scheme a natural location for the most notable doctrines of the previous century of economic inquiry.

In Chapter IV, some of Hearn's views on specific doctrines are presented. These can be understood as contributions even by one whose sympathies lie largely with the orthodoxy.

Although the main flow of economic thought has not been in the direction to which Hearn would have pointed, he was not completely uninfluential. In particular, there is evidence that both Marshall's Principles and Jevons' Theory

would have been written differently had these two men not studied Hearn. This evidence is found in Chapter V.

The "labor theory of value" has been the subject of such controversy that a separate chapter dealing with this topic is in order. Chapter VI is an expansion of the implications of Hearn's restatement of what might be called the "Smithian labor theory of value."

Chapter VII draws from Hearn's work in both analytical and historical jurisprudence for a theory of economic institutions. The principal element in Hearn's legal theory was "duty" rather than "right"; this might be compared to the emphasis, in classical economics, given "labor" rather than "satisfactions." Of particular interest to the economist is Hearn's analysis of property and contract.

CHAPTER I

INTRODUCTION AND SUMMARY OF IMPORTANT CONCLUSIONS

The purpose of this chapter is to introduce Hearn in the context of the history of economics and to present some of the important implications of his work.

According to the standard histories of economics, the discovery of the marginal analysis in the last quarter of the nineteenth century enabled economists to explode the errors of the "classical school" and to put the science on a solid foundation. That story is needful of revision. The "marginal revolution" did indeed involve changes. What followed differed from what had gone before. But what had gone before had already been changed. The story must, therefore, be told in at least three parts. Not less significant than the "marginal revolution" was the "Ricardian revolution." In each of these "revolutions" something old was carried forward, something new was added, and something was left behind. Hearn dealt mainly with what has been forgotten. But he handled it well and a study of his work throws new light on what has come down.

It is not difficult to understand how truth can be forgotten. As Thomas Kuhn,¹ and Hans Reichenbach² before him, have noticed, to merit the encomium "science" a field of study must exhibit progress. In Hearn's day there was little professional consciousness among economists and the belief in doctrinal progress was not excessive. Toward the end of the last century, however, evidence of true progress helped economics grow into a self-conscious academic speciality and the spirit of progress thereby gained a new and independent source of nourishment.

The spirit of progress, however, can be excessive. That is to say, the spirit supplies motive for the abuse of older writers and regrettably the opportunity for such abuse also exists. The expositor of a particular theory can argue that it is the duty of the advocates of an opposing view to present what he himself is at liberty to neglect. But while his contemporaries can speak for themselves, his predecessors cannot all do so.

It is a conclusion of this author that the factors mentioned above have contributed to error in the orthodox

¹Thomas S. Kuhn, The Structure of Scientific Revolutions, 2nd ed. (Chicago: The University of Chicago Press, 1970), p. 160.

²Hans Reichenbach, The Rise of Scientific Philosophy (Berkeley: The University of California Press, 1951), pp. 117-120.

histories of economic thought. But the wrong done has been done with the best of intentions. The man who elects a career in economics naturally has faith in the subject. No man undertakes work he believes to be waste. But neither does any student begin at the beginning. His attention is turned to the controversies of the hour and from these his concept of the science is built. He puts before himself certain questions and these become for him the marks by which the boundaries of the science are identified. At a later date, he attempts to enlarge his knowledge of the literature. But he reads always with an eye for answers to questions the legitimacy of which he never doubts. But if the questions have been changed, it is natural that earlier work falls short when judged by later standards.

Now it may be asked, "If earlier work is not to be judged in light of modern theory, what is the appropriate standard?" To this question there is one simple and obvious response. As it is the purpose of theory to explain facts, facts can be used to explain theory.

One set of facts which economists have discussed is the set of magnitudes measured in the monetary unit (prices, wages, etc.). As these are the data of econometric studies, it is appropriate that the set which they comprise be called the "econometric order." An event in this field obviously reflects an "institutional framework"; this will be called the "legal order."

But economists, except for a few exceptions to be noticed shortly, have never regarded either of these sets of facts as their ultimate material. Senior's "four elementary propositions of the science" all dealt with phenomena other than those identified here.³ In like manner but at a much later date, Alchian and Allen present six "basic postulates" of economics.⁴ None of these directly imply principles exclusively concerned with econometric or legal events. The ultimate material of economics is "something else." It is called "economic order" here.

Modern economics is taught as the science of the "allocation of scarce resources among alternative ends." As some variation of this is present in nearly all definitions of the science, it may be taken as the modern or "neoclassical" theory of economic order. It is to be contrasted to the "Smithian" theory. That theory can be said to have been statements of regularities in the "use of human energy in society."

Alfred Marshall well expressed the spirit of "Smithian economics" when he wrote that "... while wants are the rulers of life among the lower animals,

³Nassau W. Senior, An Outline of the Science of Political Economy (London: W. Clowes and Sons, 1836), p. 26.

⁴Armen A. Alchian and William R. Allen, University Economics, 2nd ed. (Belmont, California: Wadsworth Publishing Co., 1967), pp. 15-19.

it is to changes in the forms of efforts and activities that we must turn when in search for the keynotes of the history of mankind."⁵ This should immediately bring to mind Adam Smith's emphasis on the "division of labor." There have been several interpretations, by modern economists, of the Wealth of Nations. But the message that men such as Carey, Bastiat, and Hearn got from Smith "what is going on out there" was clear. People are working. The nation's manpower is divided among different occupations. The point emphasized here is that the eye of inquiry was focused on "changes in the forms of efforts and activities." Desiring always to economize labor, men specialize and exchange and so forth. A by-product of this theory was a theory of wages, prices, etc. That is to say, the econometric order was understood to be a result of the economic order and, of course, the legal order. More will be said about this in a moment.

Ricardo thought about and wrote about the econometric order. Not once in his Principles of Political Economy and Taxation did Ricardo mention the "division of labor."⁶ The "classical" theory of foreign trade

⁵Alfred Marshall, Principles of Economics, 9th ed. with annotations by C. W. Guillebaud, Two vols. (London: Macmillan and Co., 1961), vol. I, p. 85.

⁶David Ricardo, On the Principles of Political Economy and Taxation, Vol. I of The Works and Correspondence of David Ricardo, ed. Piero Sraffa (Cambridge: The University Press, 1966).

said "something else" but Ricardo and those influenced by him, most importantly Mill, whenever possible presented the "doctrines of the science" as bare relationships between external magnitudes such as population, rent, capital, wages, etc. Each of these doctrines was presented and explained independently of the others; no underlying "first principle" was implied. The reader of the "dismal science" was free to draw his own conclusions as to which of the doctrines were relevant and in what sense.

The emergence of neoclassical theory can be understood as the result of effort to impute social significance into the econometric order while maintaining an image of a positive science treating the data of that order. Economists wanted to say more than "wages are determined at the margin of cultivation and that is that." But they did not want to say, at least not too blatantly, that "wages and prices are determined by a process that is good." The marginal utility theory of price was presented as an explanation of price, but it was also a way of saying that when a price occurs "something else" happens. The neoclassical theory of production was a by-product of the "functional" theory of distribution. In other words, the marginal analysis made it possible to impute social functions to product and to factor prices. These "social functions" became the

material of the neoclassical theory of economic order. As modern economic theory is taught, a token response is given to the question, "What determines price?" But that response is soon expanded into "how the price system works."

It might be said that Smith asked the question, "What determines national wealth?" His answer was "the use of national manpower." But he expanded on this and in the process discussed prices and other things. Ricardo probed more deeply into the question of the determination of prices. Modern economic theorists ask the question, "What are the effects of prices?" Such a summary may be misleading, but the truth that it contains warrants the risk.

The theory of price functions, when conquered, took captive its rude conquerers. Today it is perfectly natural for economists to call the core of economics "price theory." It is the collection of concepts and conditional inferences that grew out of the effort to impute significance to prices. In truth it is a theory of everything, or almost everything, but prices. It does not attempt, as the classical economists attempted, to explain prices. All of the conclusions are cranked out without specifying the scales of the coordinates of the diagrams. The classical economists has an explanation of prices, of the "numbers." The price of a commodity reflected the value of the

commodity (measured in labor) and the value of money (also measured in labor costs).

In an apparent effort to endow neoclassical economic theory with general significance the "science" is often defined as the study of how all societies solve their "basic economic problem." Statements of that basic problem are so closely related to the functions imputed to prices by economists that no critical comment should be necessary. One author writes: "An economic problem exists whenever scarce means are used to satisfy alternative ends."⁷ This statement points to two sets of facts that have been troublesome material for economics. The "means" or "resources" include, in modern economics, both labor and nonlabor "factors." The Smithian theory treated labor only; Ricardo added "the original and indestructable powers of the soil,"⁸ the marginalists added "ends" or "preferences" to the material of the science. But the significance of these two realms of reality is given a full account in a theory which treats labor only. This will be illustrated in a Robinson Crusoe model which will be followed by a brief restatement of Hearn's views and further criticism of the neoclassical theory.

⁷Milton Friedman, Price Theory: A Provisional Text (Chicago: Aldine Publishing Co., 1962), p. 6.

⁸Ricardo, Principles, p. 67.

In so far as any of Crusoe's wants can be satisfied without effort there is no economic problem; in fact, there is no problem at all. The means to satisfy these wants are, in the language of the economists, "free-goods." The wants which need be considered are those which are satisfied with effort. To choose to satisfy one of these is to allocate effort to the purpose. Crusoe's "preferences" among his economic wants are reflected in the division of his labor.

Now it should also be obvious that the "use" of the physical environment is reflected in the "use" of Crusoe's labor. The only "scarce" resource is Crusoe's "fund of labor." The physical environment is a stage; it is not part of the act. It is misleading to say that nature cooperates in production. If, for example, Crusoe must spend two hours each day procuring his food and only one hour gathering fuel, it is not that nature cooperates less in the one case than in the other. It is rather that his efforts to feed himself meet more natural resistance than do his efforts to keep a fire. The toil and trouble that it takes to get something, the real cost of something, is a measure of nature's resistance. Crusoe can be said to advance economically if he can subdue the earth, if he can find techniques of working so that the natural resistance to his efforts is reduced. He can be predicted to exploit such techniques that economize the

outlay of his labor, the "purchase money of all things."

The economic problem for a society is the same as that of an isolated man, but the solution differs greatly. And in modern society the problem is hidden by the success of the solution. In society each unit of labor, each man, is a separate decision-making unit. Thus in society these decisions must be coordinated. The earth is a stage for a continuous drama for which the script is written by the actors themselves as the play proceeds.

The "Crusoe model," although inspired by the Plutology, is much too static to convey Hearn's message. Hearn's view was what might be called "developmental" or "evolutionary." Labor being the economic means to man's enjoyments, economizing labor was understood to be the sole means to the expansion of those enjoyments. This might be compared to Adam Smith's well-known doctrine that the great advances in the wealth of nations are due to the division of labor.

Hearn recognized three means by which efforts are reduced, by which labor is economized. Such help, according to Hearn, can come "from within, or from without, and, if the latter, from either natural agents or other men" ⁹ Hearn adds that if help comes

⁹William E. Hearn, Plutology: Or the Theory of

from other men it can be either in concert or otherwise. Thus the four "aids to labor" turn out to be "capital, invention, cooperation, and exchange." It is to be noticed that transactions, contracts (cooperation) and exchanges of property, are on all fours with capital and technology as the sources of national wealth.

Now the economic order as described here is a function of the legal order but it is independently observable. In the language of the analogy used above, the institutions (the legal framework) form the code for acceptable script which the actors write as the drama unfolds. Economic order is the plot one could detect without reading the script, without knowing the terms of contracts and exchanges. And it should be possible to describe the plot without referring to the constitutional code for acceptable script, the legal order. That is to say, the theory of economic order should have translegal or meta-institutional significance. The Smithian theory, precisely because it was based on an inference from historical experience in different legal systems, was timeless in significance. The neoclassical theory, precisely because it is a collection of functions imputed to the econometric order, is laden with elements which have no significance except in relation to that order or to the legal order in

Efforts to Satisfy Human Wants (Melbourne: George Robertson, 1863), p. 121.

which the pricing process is present. The following brief economic history, extracted from Hearn's work, will serve to illustrate the relationships between and among the three orders identified here.

Originally, all wants were satisfied domestically. Here and there a trade was effected between one family or tribe and a neighbor. Before the establishment of the state, however, family dependency was the rule. Under the state, contracts and exchanges were facilitated. In Hearn's words, the state "substituted citizens for clansmen," and "increased the number of persons between whom co-operation and exchange could take place."¹⁰ Thus full-time specialization became possible, for a man could leave his clan and look to strangers for support. But the commencement of a new trade is cautious. Goods are made to order or offered to a limited market. If these trials are encouraging a trade will be established; the producer will offer his work to the world at large. Only then does the price of that good become a matter of expectancy. Each new trade increases, by one, the number of "market prices." At an advanced stage of society the number of prices becomes large and the economic life of the community is in part a matter of individual adjustments to an environment of prices. Thus the econometric order is an effect much

¹⁰ William E. Hearn, The Theory of Legal Duties and Rights: An Introduction to Analytical Jurisprudence (Melbourne: John Ferres, Government Printer, 1883), p. 23.

more than a cause of economic order. The two great mistakes of the neoclassical economists were to treat it as a cause only and to treat it as the only cause.

To the extent that economic order is an effect of prices, economics needs a genuine theory of prices. The utility theory does not explain why one price, rather than another, occurs. That theory will be shortly evaluated as a vehicle by which men express a fondness for legal order in the language of economic controversy. It is a way of saying that an exchange benefits both parties. Part of the utility theory's claim to fame was that it was held to "explain" prices of goods that were not regularly produced. But once a good had been produced, there is nothing that need be said about its price, if it is sold. What needs to be explained are plans based on price expectations. There must be some basis for the confidence of a producer who incurs costs without a contract of sale. Similarly, obligations are created the performance of which depends on supplies being available at expected prices. This is done before the economy reaches "equilibrium," before the play reaches that imaginary climax. Individuals write the script for their parts without reading the lines that the other performers have drafted for themselves. In fact, exchanges are not mentioned in the script. Vendors are under no obligation to sell; purchasers are under no obligation to buy. But each group is confident that the

other will come forward and that the terms will fall within some acceptable range. For goods which are regularly produced for a money income, the classical labor cost theory is applicable.

This author has alluded to the institutions of property and of contract as the legal framework of the type of society that economists have called a "market economy." It will be argued in the last chapter of this thesis that these two institutions are functionally complementary and that neither should be exalted at the expense of the other. But economists have, for the most part, been concerned with an aspect of property, the power of disposition, that is not completely unlike contract. The difference between contract and exchange have not been considered substantial. As price theory, economics has been concerned with terms; the theory of trade terms and the theory of contract terms are given as one theory of price. However, the differences are substantial and are not unrelated to differences between Smithian and neoclassical economics. In the former contract, and in the latter, exchange is the paradigmatic transaction.

In his discussion of the origin of the division of labor, Smith twice refers to exchange as a "species of contract."¹¹ In contrasting cooperation and exchange

¹¹Adam Smith, An Inquiry into the Nature and Causes

Hearn writes that the two "differ from each other as a contract of partnership differs from a contract of sale."¹² Both of these statements are inexact, but in modern economics one is more likely to encounter the opposite error. "The worker exchanges his labor for wages," "A loan is an exchange of present for future money" are but two of a family of familiar expressions. Of course either error can be defended as a metaphor but this difference in paradigm reflects the difference noted earlier between the science of the "use of human energy" and the science of "price functions." The older preference for contract can be easily understood; in a direct way it is contract that gives direction to labor. But the modern error is less excusable and its causes more subtle.

Price theory is unfriendly to contract for the simple reason that contract terms are settled prior to the transaction. Thus contract is unsuitable for a statement of the "value problem" as economists conceive it. In the modern orthodoxy the individual is imagined to think in some nonmonetary dimension (satisfactions or commodities or whatever). His decision is a constrained choice on such a space. In a community of such "utility maximizers" interaction among the actors yields the

of the Wealth of Nations, ed. Edwin Cannan (New York: The Modern Library, 1937), p. 13.

¹²Hearn, Plutology, p. 126.

equilibrium price vector. The actors "think commodities"; they do not "think prices." They cannot think prices because there are no prices until the transactions occur.

It was suggested above that contracts, but not exchanges, are the elements of the script for a continuous drama. The ownership of property is essentially costless; the owner has no obligations because of ownership. Contracts create new duties (obligations); exchanges are transfers of pre-existing "rights." A contract straddles an interval of time; an exchange takes place at a point in time, for all practical purposes. Thus contract requires a measure of trust; exchange is possible between strangers. There are some doctrines, such as how terms are influenced by alternatives, that are applicable to both transactions. But the differences mentioned here have important implications for the industrial organization of society. A company is a cluster of contracts and the owner is the hub of that cluster.

The reader will recall that Hearn's four "industrial aids" were capital, invention, cooperation, and exchange. These devices to economize labor are continuously in operation. The plot unfolds but there is no climax such as general equilibrium. It would be misleading, however, to say that the system was in disequilibrium. It is not

out of joint. The nation is getting wealthier; each device to economize labor releases labor into some new channel.

The concept of equilibrium has been criticized by respected economists, but if understood simply as a part of an abstract argument it would not be objectionable. The story of what happens because of prices has to have an ending. But the feature of neoclassical economics which must be criticized here is that the conceived economic order is an order in "flow variables." This has been the source of an extraordinary amount of confusion and contradiction and is not unrelated to the inclusion, as part of the material of economics, of "non-labor factors" and "preferences." In fact, that is where the trouble began.

To repeat what cannot be overemphasized, the chief thrust of neoclassical theory was the imputation of social functions to product and to factor prices. The immediate concern here is factor prices, the source of the confusion manifested in the discussions of qualitative subtleties of "costs." It will be shown that the flow analysis demands concepts of costs, or production, and of the firm that are extraordinarily unrealistic.

In neoclassical theory, what is a continuous drama is described as a succession of separate acts. The static analysis, from which the dynamic analysis departs,

treats a single act as a complete play. The "market process" is described as if it were a series of trial rehearsals culminating with a public performance acceptable to all actors. At times economists seem to think that these rehearsals are actually carried out. In a discussion of the distinction between expected and realized magnitudes, for example, the belief seems to be that successive econometric states are actual performances upon which script revisions are based. At other times, however, each of the successive states is thought to be in some sense climatic. The priority of the flow paradigm (single act as a complete play) is very evident in the discussions of the distinction between the "long-run" and the "short-run." The confusion compressed into the concepts of "fixed costs" and "sunk costs" is astonishing.

If understood to mean costs that are invariant in respect to the level of output, "fixed costs" obviously do not effect output decisions. The logic of this is the same as that of the doctrine of the neutrality of a poll tax. This is not a very important doctrine for economic analysis, but it appears to be part of the psychological preparation for the acceptance of other ideas that should be distinguished. It should not be necessary to say that the services rendered as consideration for a fixed outlay alter the internal environment of a company; the size of the "fixed factor" does effect

output decisions. But the notion of "sunk costs" is arrant nonsense. This doctrine suggests that costs are irrelevant because they were incurred in the past or because they are current obligations created in the past. Costs incurred in the past, being elements of the set of events called history, are not going to vary because of current decisions; these come under the rule of fixed-cost irrelevance, not because they were incurred in the past but because they are invariant. Current obligations made in the past that are not invariant certainly do effect decisions. A contract with a union effects output decisions. Undoubtedly there is a conceptual refinement by which the truth of the doctrine of the general irrelevance of past decisions could be saved, but this author will leave the expansion of that particular frontier of economic knowledge to others. The sunk-cost doctrine is a torpedo aimed at costs afloat only in the economic mind.

In a discussion of "sunk costs" Israel Kirzner writes ". . . [O]nce a factory has been constructed, it represents a costlessly available resource."¹³ That statement is correct but not because costs were incurred in the past; had the factory been built by brownies at no

¹³Israel Kirzner, Competition and Entrepreneurship (Chicago: The University of Chicago Press, 1973), p. 194.

expense to the owner it would not be regarded in a different light. The essential truth which justifies Kirzner's statement is that ownership is a costless condition. It may carry costs as an incident, such as when an estate is encumbered with back taxes. A company's bonded indebtedness is comparable to such an encumbrance.

If the factory, once built, is costless, why do economists call the owner's income (profit) a cost? It appears that this is the cost (usually called "implicit cost") which the sunk cost doctrine attempts to submerge. The standard unit cost curves are constructed as transformations of the "production function." As part of the transformation, "factor prices" are put on the "factor service flows." Usually at this point in the exposition, the concept of opportunity cost is introduced to make "implicit costs" and "explicit costs" additive.

The standard cost curves come closest to making sense as planning curves or, in the context of neoclassical analysis, as part of the climax of the drama, "equilibrium." Both of these concepts, both "plans" and "equilibrium," are vital to what the economist sees as "the market process." But both "plans" and "equilibrium" are imaginary states. Plans exist in the minds of businessmen; equilibrium exists in the minds of economists. When an economist analyzes a going concern, he thinks in the

language of the equilibrium analysis. Here such notions as "implicit costs" become troublesome and conceptual reclarification is necessitated.

The introduction of the concept of "implicit" or "opportunity" cost has the effect of removing the company owner from the cast of characters.¹⁴ There is the "entrepreneur" but he is dispossessed. He coordinates the flows of services supplied by others. He may wear other hats, such as that of a capitalist receiving "implicit interest." There is no proprietor receiving profit because he owns a factory, a "costlessly available resource." Is it that the proprietor has been excluded from the stage because the performance of his role cannot be conceived as a pure response to some "market price?" It is true that the theory of entrepreneurship allows a nonautomation in the cast--but the entrepreneur drops out of the play as the climax is approached. What is questioned here is his dispossession while on stage.

Comparing "implicit costs" to "explicit costs" obscures the simple fact that the former are estimations whereas the latter represent objective events. The assets of the company are not "on the market"; the value of these assets, the value of the "fixed factors" must be computed.

¹⁴In the familiar "circular flow" diagram, "households" contribute "factor services" to "firms." There is ownership of the factor services, but there is no ownership of the "firms."

Perhaps this is part of the message of the subjectivist cost doctrine. Supposedly "implicit interest" is a cost somewhere in the mind of the man who, qua entrepreneur, makes payments to himself, qua capitalist. It is suggested here that such an entrepreneur-capitalist be called a proprietor. Were he to exchange his "implicit bonds" for a title to his factory, he would be no worse off and students of economics would all be better off. The student could cram for examinations in economic theory, corporate finance, and accounting in the same evening. As things now stand, the student must think it strange that in corporate finance the generality of the "capital-value approach" to business decisions is taught but in what is called general economics "flow analysis" reigns supreme. The views expressed here receive additional support in an examination of the concept of production that is related to the doctrines criticized above.

While drafting this chapter, the author looked at a number of respected price-theory texts and advanced treatises in general economic theory hoping to find some concrete discussion of the supply of "nonlabor factor services." But although the supply of labor receives exhaustive treatment, one cannot find comparable discussion pointed specifically to nonlabor resource services. The relevant material, which unfortunately is always in general and abstract language, is the statement of the

law of variable proportions. The law of variable proportions, like the doctrine of opportunity cost, supplied a need economists felt to treat labor and nonlabor "factors" symmetrically.

Familiar statements of the law of variable proportions imply a technical concept of "factor employment." Every student knows that if labor is held constant, what happens in stage one (when land was held constant) now happens in stage three. The reasoning process assumes that each unit of the different factors is somehow physically involved in the production process. Strictly speaking, the validity of the flow analysis would require that this "physical involvement" be uniform and continuous during the period. Otherwise, the solution is not independent of the duration of the period. The static analysis would leave one thinking that the annual wheat crop is 52 times the weekly wheat crop.

A partial answer to this objection would be to (conceptually) take a slice out of time sufficiently thick to cover the "complete" process. But the longer the period chosen, the more obvious it becomes that the discontinuities in the "participation" of the nonlabor factor services are an inherent part of every technique. It would be absurd to attempt to measure this "participation" in a flow dimension. "Man-hours" makes sense;

"nature-hours" is nonsense. Nor is there a temptation to call these periods of idleness of nonlabor resources waste, which is the connotation of unemployment. A mechanic uses only a few tools at a time. A gun held for protection is not waste. But if the gun were said to be "employed," any prospect of use would have to be called employment. In this view winter clothes stored for the summer are employed. This is a good way of looking at the question, but it takes the content out of the concept of employment of physical things. It is a proprietary, not a technical, concept. It does not mean the same thing as the employment of labor.

The economist may wish to say that the gun is yielding the continuous service of "protection." This is an illusion. The gun, while in the case, does nothing. What is thought to be a service is simply ownership. That is to say, the "protection" is nothing more than the rights of ownership. It is only a little less obvious that the "productive services" of a factory should be viewed in the same light.

The factory, once built, is not used because it is productive. It is used, if it is used, because it is the least-cost technique of satisfying the particular want which gives rise to the demand for the product. For economic analysis the factory should be regarded as part of the natural environment. One man has a natural spring

from which he draws water because that is the source offering the least resistance to his efforts. His neighbor has a windmill that pumps water from a deep well. For his neighbor this source offers the least resistance to his efforts. The neighbor on the other side hauls water up from the creek but is giving some thought to sinking a well.

For simplicity, assume that the mill and well, if built, will last for twenty years and that the man expects to live for twenty years. This assumption is not restrictive. The man faces a choice of two techniques of providing for his need. The presently employed technique requires, say, 500 man-hours per year, a little less than ten man-hours per week. He makes one trip to the creek each week; on that day he "produces" means for a week. Assume that the construction of the mill and well requires 1000 man-hours. He can thus provide his lifetime needs with either of two techniques, one costing 10,000 man-hours and one costing 1000 man-hours. If he puts in the well he "produces" the water for the entire period at the time he does the work. Prospectively, one can speak of the "productivity" of the well as the labor spared, 9,000 man-hours. But this is best understood as a measure of the superiority of the chosen technique over the rejected technique. Once the well is built and the

old technique of going down to the creek is abandoned this particular comparison loses relevance. The basic point of view here takes on increased significance in a social economy with developed capital and labor markets. Because labor is the sole economic means it is always in demand. The effects of improvements are continuous and cumulative. The decision to build a factory is a choice of technique of working in which some of the work is done when the factory is built. That sum of human energy is then available for other employment.

Thus far the criticism of neoclassical economics has dealt with the production side of things. A few comments on the topic of consumer theory will now be made. The cardinal theory of utility was an attempt to explain prices in the same sense that the classical economists explained the "numbers." It does not seem that economists are still interested in this question. The apparatus (preference theory) that grew out of the utility theory has found other uses, such as specifying the forms of behavioral functions. From these certain econometric predictions can be made. For example, the standard assumptions imply that the prices of complements move in opposite directions. There has been some imaginative work along these lines, but it is difficult to see how this research might help settle any ulterior question of social philosophy. It is perhaps significant that the

subjectivists, who have tried to use utility theory to settle ulterior questions, have disassociated their doctrines with the econometric order and have become the least daunted defenders of the legal order, as economists conceive it. In their eyes the loose screw in the classical system was the objective theory of price. But their theory is not an alternative theory of price; it is rather a denial of the validity of any theory.

The subjectivists view market institutions as devices by which individual preferences are revealed. But by insisting that human ends are unknown, except as revealed by market conduct, they make it obvious that the theory of a market economy is a circle. The Smithian theory, on the other hand, was not a tautology. Economizing labor was understood to be a revealed end, and market institutions were simply explained as means to that end.

An allusion to the subjectivist cost doctrine has been made above. Although its advocates may claim more, this author interprets that doctrine as meaning that the supply price of something is a decision of the supplier. Such statements amount to nothing more than description of the legal order. As economic theory lost its content, as the theory became increasingly formal, a wide variety of sentiments found the language of that theory convenient

for expression. Such sentiments are not to be ridiculed. It is desirable, however, that they be expressed with the maximum attainable exactness. It seems that, in the semi-consciousness of the advocate of the utility theory, a somewhat vague notion of certain features of the legal order is present.

When the economist uses the Edgeworth box diagram to make a case for free exchange, he proves nothing; but he makes a point in accepting the model. Interference with exchange in a two-person model is meaningless. The economist, in using the Edgeworth box, assumes that the preferences of the interventionist do not count. He also assumes that, in respect to the disposition of the endowment of one party, the preferences of the other party do not count. That is, he assumes ownership; all of the rights in respect to the things owned are held by the owner. This assumption is realistic, but it has no foundation in preference theory. In general, the owner's preferences in the use of disposition of his property are the only preferences that receive legal recognition.

If two parties can find suitable terms they will trade and all is well. If two parties cannot find suitable terms they will not trade and all is well. In the first case they get to the contract curve; in the second case they are already there. In any case the question is settled between the parties directly concerned and the

rest of the world can go about its business. But the legal order is one thing, the economic order is another.

Of course it is not to all economists that utility theory is a mere disguised theory of legal order. Samuelson has suggested that the purpose of consumer theory is to place restrictions on demand functions.¹⁵ But although this version of the theory wears the dress of positive science, its slip is showing. The behavioral function relevant to demand theory should be dated at the time expenditure decisions are made; in an equilibrium flow model all events are dateless. It is true that in the consumer hemisphere of the economic world-view, conceptual refinements bend and mend what Thomas Kuhn would call the paradigms of normal science. But as long as economists make allusions to the Weber-Fechner law¹⁶ and to the fact of "liking bread more when there is butter on it"¹⁷ it is difficult to conclude that they are aware of the importance of the point made here.

The standard assumptions are not sufficient for the standard conclusions. Were it not for carrying costs

¹⁵Paul A. Samuelson, Foundations of Economic Analysis (Cambridge: Harvard University Press, 1955), pp. 92, 97.

¹⁶Paul A. Samuelson, Economics: An Introductory Analysis, 6th ed. (New York: McGraw-Hill, 1964), p. 429.

¹⁷George J. Stigler, "The Development of Utility Theory," The Journal of Political Economy, LVIII (August and October 1950); reprinted in Essays in the History of Economics (Chicago: The University of Chicago Press, 1965), pp. 151-152.

(finance and storage costs) consumer equilibrium would be indeterminant. The easiest way to see this is to imagine a consumer in equilibrium and then imagine that the price of some good is temporarily reduced. If carrying costs were zero the demand for that good would increase without bound.

This writer's interpretation of the neoclassical theory as a functional theory of prices provides an alternative to a sympathetic view of the emergence of "positive economics." Something is amiss when a need is felt for an abstract defense of scientific practices. In the nineteenth century biologists drew inspiration from political economy. In the twentieth century economists look to physics for precedent.¹⁸ Who is walking in the light?

The tenets of positivism are familiar. To its sympathizers, scientific research is the formulation of theories or hypotheses that are to be "verified" by observations. To most economists, the econometric order is assumed to be the appropriate field for observations.

The services of an econometrician are of value to any agency with a direct interest in an econometric variable. But when, as is more often the case, the study is used to "verify" theory, the implication is

¹⁸Milton Friedman, "The Methodology of Positive Economics," in Essays in Positive Economics (Chicago: The University of Chicago Press, 1953), p. 16, and pp. 26-29.

that the interest is the theory itself. Thus positivism implies a very strong interest in theory. In addition to this strong interest, another condition must be present for the spirit of positivism to erupt. That it need be "verified" implies that the theory is unintelligible in terms of ordinary sense experience.

In particle physics and in other fields such as genetics where the statistical method is used without apology the tested hypotheses deal with phenomena which are not accessible by other means. Gravity and genes are literally invisible. But falling bodies and patterns of phenotypes give scientists cause to believe that these invisible phenomena actually exist. Research in these fields typically involves the construction of ingenious experiments to test the implications of statements about the "invisible." It is to be noted that the nature of the "invisible" is unintelligible in terms of ordinary sense experience. A physicist would not be embarrassed if he were told that he did not understand gravitational forces. A genetist will readily admit that he does not fully understand the nature of genes. It would become the economist to admit that he would not know an efficient allocation if he saw one.

Economists are using a mystery to explain a fiction. The fiction is "the price system." The mystery is "resource allocation." The entry into the flow of

economic thought of the concept of "allocation" made it possible for economists to believe in something which is in fact unintelligible. The concept of allocation is without content. What is a nonallocation? Because of this the economist is inevitably led to the notion of "efficient allocation" which is impossible to discuss nonmathematically. The study of economics thus becomes the study of properties of preference functions and production functions.

Modern economic theory can be compared to a scaffold confused with a building. The purpose of the scaffold was to give men a better look at the building. This corresponds rather closely to the Knightian view of theory as a conceptual framework. Unfortunately, that view was lost as men looked more and more at the scaffold and less and less at the building. To economists like Friedman and Samuelson, the building is used to "verify" the structure of the scaffold. It is impossible to believe that such economists see this distinction. To them theory is much more than a conceptual framework; to them theory is a summary statement of phenomenal regularities. These men apparently regard "utility functions" as "existing." They seem to view "utility functions" as a geneticist views "genes." In certain cases, one can observe a phenotype and know that the individual is homozygous in the particular trait. In like manner, one can observe that people

both gamble and buy insurance. The observer can thereby "know" that the marginal utility of income goes up and down. Clearly, to one who entertains such thoughts, preference functions are "part of the building." More than any other single concept, that of "allocation" made it possible for economists to think after this fashion.

"Allocation" can be taken as the symbol of victory for neoclassical economics. In a subtle way, this concept displaced "division of labor" or "organization of labor." The concept of allocation can be traced back through Robbins to Wicksteed.¹⁹ But it can be traced back no further.

Phillip Wicksteed, a man whose interest in economic literature unfortunately went back no further than Jevons, represented the beginning of what might be called meta-physical economics. Not until after Wicksteed would anyone have called economics the study of "the administration of resources." A key word in that phrase has been changed to "allocation," but the concept is the same. This author has been unable to find any evidence that any economist, prior to Wicksteed, thought in this plane of abstraction.

Marshall has been discussed briefly above and will be discussed in more detail below. The point made here is that Marshall thought in terms of concrete phenomenon, of

¹⁹ Phillip Wicksteed, The Common Sense of Political Economy, Vol. I (New York: Augustus M. Kelley, 1967).

things immediately intelligible. His demand curves were derived from his beliefs of how people felt about buying things; they were not derived from preference function. The case of Pareto is similar. To Pareto equilibrium was determined by the interaction between "tastes" and "obstacles."²⁰ This was only one step away from the Smithian view as explained above. There is no reason to believe that Pareto would have objected to the doctrine that, for society as a whole, all of these "obstacles" are reduced to natural resistance to human efforts. J. B. Clark wrote:

Exchanges add much to the economy of primitive life, but they subtract nothing from the essential laws of it. Man must still tame the forces of nature and transform materials into commodities. . . . It is not because the life of Crusoe is of much importance that it has been introduced into economic discussion: it is because the principles by which the economy of an isolated man are directed still guide the economy of a modern state.²¹

F. W. Taussig was very "Smithian" in his attempt to describe the subject matter of economics:

Scarcity is the earmark of an economic good, -- scarcity, that is, relative to demand. Water becomes an economic good when effort is needed to obtain it in the quantity desired, at the place of use

Either term--wealth or economic goods--serves to describe the subject matter with which economics has to deal; those things which men want, which are not

²⁰Vilfredo Pareto, Manuel of Political Economy, trans. by Ann S. Schwier (New York: Augustus M. Kelley, 1971), Chaps. IV, V.

²¹John B. Clark, The Distribution of Wealth (New York: Augustus M. Kelley, 1965), p. 52.

free, and which present the problems of effort, of satisfaction through effort, of the organization of industry.²²

The examples illustrating the point made here could be multiplied. None of the economists of this period, except Wicksteed, would have been upset by the statements quoted from Taussig and Clark.

It is possible for contemporary economists, particularly those with subjectivist learnings, to look back at Wicksteed with admiration. But the scholar of medieval literature, when it came to the science of political economy, lived completely in a dream world. In the entire text of the Common Sense there is not a single reference to any other economists. There is no other work in economics so completely the product of one man's imagination.

Etymologically, to allocate means to place, to put into a location. Wicksteed presented many examples of this. The reader will recall that some milk was put into the cat's bowl, some was put into a cake, some was put into the baby's bottle, etc.²³ But in respect to "proper" amounts, economic theory is silent. The standard efficiency criteria are not generally meaningful. The economist is only able to think that the criteria are meaningful because

²²Frank W. Taussig, Principles of Economics (New York: Macmillan, 1913), Vol. I, pp. 5-6.

²³Wicksteed, Common Sense, pp. 87-88.

he thinks of society as it is presently organized. And even then, his view of the social organization must be bent to meet the logic of the theory.

A typical illustration of a misallocation is a subsidy. If taxicabs are taxed and farmers subsidized, too much gasoline will be placed in tractors and not enough will be placed in taxicabs. This makes sense to the economist. He thinks of the marginal productivity of gasoline as being different in these two lines of activity. But if one thinks of the natural environment unaltered by man (the primary nonlabor factors), or if one thinks of the internal activities of the "firm," he soon runs short of good examples of this problem.

Economists abstract from the fact that a company is a legal entity. In such a plane of abstraction it is easily forgotten that the "first partials" of the production function are meaningless except in a proprietary context. Suppose, for example, that electricity is properly allocated between a feed store and a theater. There is a familiar conceptual experiment in which the marginal products are explained. But suppose further that there is a concession stand in the theater. The conceptual experiment will not work if one tries to explain the allocation of electricity between the stand and, say, the projector room or the box office. One who knew nothing but economic theory might conclude that the

marginal productivity of electricity was quite high in the box office, zero in the projector room, and of some intermediate value in the concessions. One might say that this was a problem of "externalities" and that the theater should be taken as a unit. But the point emphasized here is that in order to know what things to take as a unit, the economist would have to know everything that the owner of the theater knows. In what way can the economist help the theater owner? If economic theory is unable to supply aid locally, it is folly to suppose that the theory can be put into the service of mankind generally.

In all departments of the academy a distinction is made between "pure" and "applied" work. Economics alone has had to make a science of its applications. The difference between studying the building and repairing the building is abundantly clear. But "welfare economics" is the study of repairs. That this curiosity exists and is compared to "positive economics" implies that the latter is the study of studies. This conclusion is not presented in jest--economists are in fact "studying the scaffold." Another way of putting this is that "positive economics" is in fact what "welfare economics" is in appearance. The "positive" theory is "glorified ethics," as Knight might say, and the application is simply further glorification. There is certainly no formal difference between the two.

Specifying the properties of a social welfare function is very much like specifying the properties of indifference curves.

Professor James Buchanan has been critical of welfare economics as it has developed and offers, so to speak, a "new scaffold."²⁴ This writer's interpretation of "Smithian economics" can be easily squared with what Buchanan has noticed. According to Buchanan, an economist is not competent to recommend a particular econometric state. The training of the economist qualifies him to advise in respect to institutional reform. Buchanan is undoubtedly correct, but two problems remain. To a modern economist, an appreciation of the Smithian approach is not likely without somewhat of a Knightian view of theory. So long as economists feel that they are studying allocation, it is to be feared that reformist zeal will continue to seek illegitimate modes of expression. Secondly, the legitimate mode of economic counsel relates to a field, the legal order, which economists have done little truly positive work. For many questions of policy, this deficiency is not disabling. But for the ulterior questions of the institutional structure, attention must be given jural principles, considered independently of any economic

²⁴James M. Buchanan, "Is Economics the Science of Choice?," Roads to Freedom: Essays in Honor of Friedrich A. von Hayek, ed. Erich Streissler (London: Routledge & Kegan Paul, 1969), p. 62. What is described here Buchanan calls "Smithian welfare economics."

ideas. For this purpose Hearn's work as a jurist is of considerable value.

The change in economic point of view that has made it difficult to see the merits in Hearn's Plutology is in part due to changes that would also lessen the demand for his other work. The demand for economic ideas is not wholly an internal affair of the profession. The scale planned for this essay allows too little space for comment on this important subject. But the problem area can be easily identified. It is that change in thinking that has made it necessary to explain the meaning of "moral philosophy" to modern students.

In terms of modern academic disciplines "moral philosophy" might be called subjectivist social psychology, an effort to identify the internal forces that occasion stereotyped forms of human conduct. This author once believed that social scientists abandoned the pursuit of "moral instincts" because progress in such a science would be frustrating to the social reformer. Such an explanation, however, puts the cart before the horse. A better explanation seems to be that the men in the social sciences were distracted by a rather incompetent successor to God as the author of moral imperatives.

To the economist that successor was Utilitarianism. Not only are the commands of this authority vague, they are issued with insufficient consideration of natural

behavioral proclivities. There are some beneficial effects on the social sciences of theistic morality that are not generally recognized.

The man who hears the voice of his Lord at the same time hears a voice from within. His testimony amuses the religious skeptic who, however, shuts an ear to a voice well within the reach of science. It is not a mere metaphor that the religious man through his Lord hears the voice of all his ancestors. In his blood is carried the immediate causes of what men with a sense of history sense in history. Thus to an economist like Hearn, a member of that great clan of men whose eponym is Christ, there is neither inclination to deny the reality of moral sentiments nor motive to search for earthly moral authority.

But the modern economist, in his efforts to distinguish "positive" and "normative" work, and in his attempt to cleanse the former of moral content, steers himself first clear of conventional moral sentiments and later against those sentiments. In order to appear morally neutral, the neoclassical theory is carefully constructed in language that does not remind the economist of his moral instincts. Almost necessarily, in the study of this very imperfect model of the world one sees opportunities for improvement that imply policy not only counter to moral instincts but in some cases

impossible to effect. An example will help to illustrate the merits of "moral philosophy," as interpreted here.

Among modern intellectuals, the discussion of the punishment of criminals turns almost exclusively around the crime-deterrent theory. This is not truly a theory of the practice, but rather a utilitarian analysis of the practice. If the theory itself is not normative, it is certainly discussed with normative implications in view. The intellectual "justifies" or "condemns"; he does not really explain.

On the other hand, the man on the street who simply declares that it is only right that criminals be punished is actually closer to a true explanation of penal practices. As a matter of historical fact, state punishment emerged to end the custom of vengeance. It is not to deter crime but to deter retaliation that the state punishes. No one would deny that revenge is a reaction with a biological basis. It is not a particularly happy or polite sentiment but it follows offense as surely as night follows day. Unlike the intellectual, the man on the street makes no effort to deny the reality of his moral instincts. The institutions of society grew up on such instincts and when he sees these institutions crumble, he feels it in his bones. He may profess the crime-deterrent theory, but he will not be moved by evidence disproving that theory. If shown a study supporting the theory, he will thank heaven that there is still one writer around with good sense.

It is to be emphasized that in the approach of "moral philosophy" used here, the reformist imagination is constrained. In simply trying to understand the practice, one compares state punishment to the blood feud. The alternative to state punishment is vigilante law. But the intellectual who approaches the question of punishment with utilitarian questions in mind is not really studying punishment--he is studying crime-deterrence. He is motivated to imagine more pleasant alternatives. He sees punishment as only one of many means to deter crime. That one practice exists, rather than one of these more pleasant fancied alternatives, appears to be an accident of history.

It is hoped that enough has been said for the reader to understand that Hearn's political economy was not simply a utilitarian analysis of "market institutions." The Smithian economics was not merely a theory of "market success." It was a theory of national wealth which implied that wealth is a function of institutions. But another well-known Smithian theme is that practices are not established out of consideration of their utility. Undoubtedly much of the appeal of the Wealth of Nations was that it made men feel comfortable in their society. Hearn's work certainly has that same effect, at least to one not locked into this century's way of thinking. This author did not appreciate what nonutilitarian analysis was until

his expectation of finding an "economic way of thinking" in Hearn's legal work was disappointed. This author then went back to the Plutology with what might be called an "institutional way of thinking." To the utilitarian the message received is "The institutions of society should be accepted because they make men better off." But one gets the message that nineteenth-century man got if he reads Smith and Hearn as saying, "Men are better off because they are good. They work hard. They are frugal. They respect property and pay their debts."

The last chapter of this thesis draws from Hearn's legal work for a theory of economic institutions. Utilitarian and libertarian theories of these have turned the eye towards "rights" rather than "duties." But again, the man on the street who feels that it is sinful to steal and who feels a moral obligation to pay his debts holds in his heart an important clue to a realistic understanding of property and contract.

CHAPTER II

HEARN'S WORK AND REPUTATION

In writing on a neglected economist, one feels an obligation both to give him a proper introduction and explain why he has been forgotten. This second task would be simple if it were only that Hearn wrote in remote Australia. But, partly for reasons that should be clear from the introductory comments, the neglect of Hearn's work is more complex. This biographical sketch will, therefore, be presented as a history of the man and his reputation.¹

William Edward Hearn's background and training should certainly clear him of the charge, frequently directed against the "classical economists," of being a mere arm-chair speculator. Born in 1826 at Belturbet, Ireland, Hearn graduated from Trinity College, Dublin in 1846. He was regarded as an outstanding student and took

¹This chapter draws from several works: Douglas B. Copland, W. E. Hearn: First Australian Economist, The Murtagh Macrossan Lectures in the University of Queensland, 1935 (Melbourne: The Melbourne University Press, 1935); J. A. La Nauze, Political Economy in Australia: Historical Studies (Melbourne: Melbourne University Press, 1949); Craufurd D. W. Goodwin, Economic Enquiry in Australia (Durham, N.C.: Duke University Press, 1966); Francis Y. Edgeworth, "Hearn," Palgrave's Dictionary of Political Economy, ed. H. Higgs, 3 vols. (New York: Augustus Kelley, 1963), Vol. II.

his degree in the classics. In 1849, at the age of 23, he was appointed professor of Greek at the New Queen's College of Galway. In 1852 he was admitted to the Irish bar.

As a professor of Greek, in 1851 Hearn published two pieces in political economy, both on Irish problems. One was a short paper read before the Dublin Statistic Society "On Cottier Rents."² This paper seems to have been unknown to modern scholars, but, as it will be noted, shows a high degree of analytical skill, especially for a lay economist. The second work, Hearn's first book, has received some notice. Published as the Cassell Prize Essay on the Condition of Ireland (1851),³ it was chosen as the best of 25 essays submitted in response to an offer of a prize of 200 guineas in a contest sponsored by the London publisher John Cassell. It is of interest that the two adjudicators of the contest were Jonathan Pim and W. Neilson Hancock and the umpire was Montifort Longfield. It appears that it was the Cassell Essay which, a few years later, qualified Hearn for an appointment to the faculty of the University of Melbourne.

Some interesting theoretical points in the Cassell Essay will be discussed later; it is enough here to note

²William E. Hearn, Cottier Rents: A Paper Read Before the Dublin Statistical Society (Dublin: Hodges and Smith, 1851).

³William E. Hearn, The Cassell Prize Essay on the Condition of Ireland (London: John Cassell, 1851).

that the young Greek professor had formed the basic approach to political economy that he was to embrace for the rest of his life. Hearn's proposals for reform centered around "removing the ultimate causes" of Irish distress. These causes he found to be, in the main, a surplus of legislation. There are some people, he complained, who "clamor for protection from foreigners, yet they never clamor for protection from lawyers." And with the same confidence that one finds in his later works, Hearn writes:

It is now well ascertained that Government, based as it is on the principle of the division of employments, is influenced by the ordinary laws of that great principle. In exact proportion to the care with which Government discharges its duties, will be the success with which the people discharge theirs; and the great duty of Government is to preserve order at home and peace abroad, to secure the just performance of all contracts between man and man; and to leave to the powerful motive of individual interest to determine what arrangements may be which best suit the circumstance and disposition of each. . . . [A]nd we hope to show that the unmaking laws is far more important to Ireland than the making them.⁴

Hearn's expression of his liberalism, here and elsewhere, was always in a "contract dimension." It is never read in his work that "prices should be free" or that "trade should be free" but instead the reader is told that people should be left to "determine what those arrangements" are which best fit their needs or that they should be left to "make their own laws." There will be

⁴Ibid., pp. 5-6.

a later opportunity to quote some passages from Hearn's juristic writings which indicate that Hearn's thinking was much like that of Ronald Coase.

Hearn has been properly called an "optimist." In one sense this term is applied to economists such as Bastiat to mean seeing market institutions through rose-colored glasses. But to Hearn the term can also be applied in reference to his expectations of legal reform and social progress; and to Hearn such progress was a uniformity of nature. Hearn knew well the deep-rooted troubles which beset his native country. He reminds the readers of the Cassell Essay that:

Ireland has been for centuries torn asunder by the continued struggle between the same parties, though they appear under different names. At first, the contest was between Englishry and Irishry, . . . In the year 1560 the reformed religion was finally established in Ireland. . . . An hundred years afterwards the deadly feud between the opposing creeds attained its height, and fearful atrocities were perpetrated for the ensuing fifty years; . . . The same desperate fidelity with which the Irish, through evil report and good report, had clung to the creed of their fathers, attached them to the sinking fortunes of the worthless Stuarts, and thus the effect of the Revolution in our country was to add the name of rebel to those of Irishman and Papist.⁵

But Hearn believed that all of this was passing away:

But there are indications of permanent improvements. Agitation seems hopelessly extinct. . . . Nothing, indeed, in the whole range of Irish affairs is so remarkable as the general reluctance of the laity to engage in any kind of agitation.⁶

⁵Ibid., pp. 10-11.

⁶Ibid., pp. 116-117.

Regretably a century has passed and Hearn's sad reflections on Irish conflict report more truth than his cheerful prophecies. In the Plutology, Hearn optimistically writes:

As to the regulation of industry by the state little now remains to be said. So completely has the true character of this interference been explained that the details of our early industrial history read like the narrative of the examination by the ordeal or of the trials for witchcraft.⁷

In the same vein, he reports:

There is now little risk at least in any Anglican country that the old extravagancies of state-action will be revived. . . . Nor is it likely that either in the present or any future generation any urgent request will be made to government to carry on under its own direction any great manufacturing or other productive operation. When men are profitably conducting their business, they do not wish to have government either as an agent or as a rival.⁸

Perhaps the most naive of Hearn's hopes was that a codification of the law would be welcomed by the bar.

There is no greater error than the popular belief the lawyers are interested in an obscure and ambiguous state of the law. It is their duty and their interest to ascertain with accuracy their clients' legal position. Whatever enables them to do so with increased accuracy and despatch is clear gain both to their clients and to themselves. A diminished cost of production always tends to increase exchange, just as an increased cost always tends to diminish it. But the sale of legal advice and assistance does not materially differ from other modes of industry.⁹

⁷Hearn, Plutology, p. 435.

⁸Ibid., pp. 443-444.

⁹Hearn, Theory of Legal Duties and Rights, p. 383.

Hearn's "optimism," which is evident in all of his work, can probably best be explained as his powerful sympathies and keen sense of history being acted upon by an age the trends of which he generally approved. As an Irishman, "Christianity was his creed and his party was his country."¹⁰ Hearn wrote history almost as if it were an account of his personal experiences. So intact is the sense of continuity that the reader of Hearn's historical works must remind himself that Western Civilization was not "made in a day." In making a point, Hearn is as likely to quote Herodotus as Bacon or Macaulay. In fact, one should not be surprised to find references to all three in the same paragraph.

Hearn's qualifications impressed the committee charged to establish a university in Melbourne and in 1854 he sailed for Australia as Professor of Modern Literature, Modern History, Logic, and Political Economy. There are few modern economists who would not be frightened by such a title, but soon after Hearn arrived in Melbourne he found that one of his four colleagues had died and he took over the chair of classics as well. The next year, however, the faculty was expanded and Hearn taught only history and political economy. But this reduction in academic duties was more than offset by an increase in Hearn's activities outside of the

¹⁰Hearn, Cassell Essay, p. 125.

university. The reader will later learn that Hearn was a man of many parts.

In 1863, the Plutology was published in Melbourne. An issue identical except for the title page was published the following year in London. As this is Hearn's chief work in economics and the chief concern of this essay, it is appropriate to notice here some of the praise of the Plutology by Hearn's contemporaries.

Jevons wrote a very favorable review in the Spectator, offering praise which he would continue to express in his later works:

This is not only a well-written work, but seems to us in many respects in advance of the treatises of the day, including on certain points even Mr. J. S. Mill's great work.¹¹

The next year in The Coal Question, Jevons expressed admiration some would call extravagant:

This work appears to me both in soundness and originality the most advanced treatise on political economy which has appeared, and it should be familiar to every student of the science.¹²

In Jevons' well-known Theory of Political Economy, the Plutology is referred to as an "excellent treatise"

¹¹William S. Jevons, "Hearn's Plutology," in Spectator (March 5, 1864, p. 276); quoted in La Nauze, Political Economy in Australia, p. 50.

¹²William S. Jevons, The Coal Question: An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal-Mines, 3rd ed. (New York: Augustus M. Kelley, 1965), p. 168.

and an "admirable work."¹³ Hearn's name is frequently seen in footnotes and in the last chapter of the Theory (Chapter VIII: "Concluding Remarks"), Jevons has a section "Professor Hearn's Views." After a long quotation from Plutology, Jevons writes:

This passage really contains a statement of the views which I am inclined wholly to accept; but no passages which I can select will convey an adequate notion of the enlightened view which Professor Hearn takes on the industrial structure of society in his admirable work on Plutology.¹⁴

In the early editions of Marshall's Principles, there are two references to the Plutology. In a footnote at the end of the chapter on wants, Marshall recommends the Plutology. In the fourth edition, Marshall added to this that "Hearn's Plutology . . . is at once simple and profound."¹⁵ A reference to Hearn's views on the organic evolution of society stood through the first six editions of the Principles.¹⁶

Edgeworth wrote the article "Hearn" in Palgrave's Dictionary saying that "Hearn's Plutology is happily named, . . . a work a model of a style which may truly be called classical. . . ." ¹⁷

¹³William S. Jevons, The Theory of Political Economy, 5th ed. (New York: Augustus M. Kelley, 1965), pp. 41, 225, 275.

¹⁴Ibid., p. 275.

¹⁵Marshall, Principles, Vol. I, p. 91.

¹⁶Ibid., Vol. II, p. 323.

¹⁷Edgeworth, "Hearn," Palgrave's Dictionary, p. 294.

The Plutology was also respectfully quoted by such men as Sidgwick,¹⁸ F. A. Walker,¹⁹ and J. K. Ingram.²⁰ Some evidence that the Plutology was generally known are the references to Hearn's attempt to rename the science of political economy; remarks on this are found in the works of Henry George²¹ and Knut Wicksell.²² High praise by Jevons, Marshall, and Edgeworth is in itself of interest to the historian of economic thought, especially in the case of a man who did most of his work in other fields.

It has been said that whenever Hearn took over a course, he started to write a new text. If this be true, his history students must have been somewhat of a laboratory during the years immediately following the publication of Plutology. In 1867, The Government of England, Its Structure and Development²³ was published.

¹⁸Henry Sidgwick, Principles of Political Economy (3d ed.; London & New York: The Macmillan Co., 1901).

¹⁹Francis Amasa Walker, The Wages Question (New York: Augustus M. Kelley, 1968), pp. 27, 67, 76, 195, 246.

²⁰John Kells Ingram, A History of Political Economy (New York: The Macmillan Co., 1897), p. 238.

²¹Henry George, Complete Works of Henry George, ed. Henry George, Jr. (10 vols.; New York: Doubleday, Page and Co., 1904), Vol. VI, p. 129.

²²Knut Wicksell, Lectures on Political Economy, trans. by E. Classen, 2 vols. (London: Routledge & Kegan Paul, Ltd., 1934), Vol. I, p. 2.

²³W. E. Hearn, The Government of England: Its Structure and Its Development (London: Longmans, Green, Reader, and Dyer; Melbourne: George Robertson, 1867).

Of this work Dicey said in 1885:

[It] has taught me more than any other single work of the way in which the labours of lawyers established in early times the elementary principles which form the basis of the Constitutions.²⁴

Dicey often quotes Hearn, and at one point says:

He would be universally recognized among us as one of the most distinguished and ingenious exponents of the mysteries of the English Constitution had it not been for the fact that he made his fame as a Professor, not in the seats of learning in the United Kingdom, but in the University of Melbourne.²⁵

Dicey bracketed Hearn and Bagehot as "political theorists," adding that "Professor Hearn may perhaps be counted an anticipator of Bagehot."²⁶

Herbert Spencer credited Hearn with having "grafted the theory of evolution onto institutions."²⁷ What Spencer meant by this was not the "survival of the fittest" institutions, but organic evolution in the sense of the differentiation of functions. A discussion of this is also found in Plutology, which was published only three years after Darwin's Origin of the Species. This was one aspect of Plutology admired by Marshall. It is somewhat curious that Schumpeter, in what was intended to be a

²⁴A. C. Dicey, Introduction to the Study of the Law of the Constitution, 10th ed. (London: Macmillan, 1959), p. vi.

²⁵Ibid., p. 20.

²⁶Ibid., pp. 19-20.

²⁷According to R. C. Mills, "William Edward Hearn," Encyclopaedia of the Social Sciences, ed. Seligman and Johnson (New York: Macmillan, 1932), vol. 7, p. 300.

comprehensive treatment of the "intellectual scenery" of this period, considers four types of "evolutionism," but gives no attention to organic evolution, a simple application of the division of labor as a developmental law, the notion of lower to higher forms being as homogeneous to heterogeneous.²⁸ Schumpeter thought of Darwin's effect on economics only in the areas of competition and population theories.

Of Hearn's books, the Government of England enjoyed the widest circulation and the most enduring reputation. A second edition came out in 1886.

In 1872 Hearn published what appears to be his most practical book. Payment by Results in Primary Education seems to be completely unknown to modern scholars, even those Australian biographers who would appear to have been most likely to have seen it. The present author only knows of its existence from the Dictionary of National Biography and the catalogue of the British Museum library. At all events, the title must surely excite curiosity, for Hearn was wrestling with a thorny problem. Knowing of Hearn's opposition to state assistance and of his imperfect faith in educators, a cynic might guess that this work was suppressed by the school teachers!

²⁸ Joseph A. Schumpeter, History of Economic Analysis, ed. E. B. Schumpeter (New York: Oxford University Press, 1954), pp. 434-446.

In 1873 Hearn resigned the chair of History and Political Economy to become Dean of the Faculty of Law. As one might expect, his next books were to be in jurisprudence. The Aryan Household: Its Structure and Its Development: An Introduction to Comparative Jurisprudence (1878)²⁹ reflects a scholarly assimilation of the then new sciences of historical jurisprudence, comparative mythology into an instructive cultural history of the European people. This too was favorably reviewed, and a second edition came out in 1891. Cliff Leslie wrote the review in the Athenaeum:

. . . Mr. Hearn's learned and interesting work . . . may be regarded as an indication of the progress of research into the structure of archaic society that so good a scholar as Mr. Hearn feels the ground firm enough under his foot to tread with the confident step of narrative historian.³⁰

Leslie is critical of some of Hearn's specific conclusions and of the tendency of Hearn "to magnify the points of difference between his own view and Sir Henry Maine's." Leslie closes on this note, adding that Hearn

cites Sir Henry Maine frequently and respectfully, but expresses chief obligation to M. de Coulanges, while we should say that he owes most to Sir H. Maine, though he has looked at the structure of archaic society also with the eyes of M. de Coulanges. Yet

²⁹W. E. Hearn, The Aryan Household: Its Structure and Its Development: An Introduction to Comparative Jurisprudence (London: Longmans, Green, and Co.; Melbourne: George Robertson, 1879).

³⁰Cliff Leslie, "Hearn's Aryan Household," Athenaeum, January 25, 1879, reprinted in Essays in Political and Moral Philosophy (Dublin: 1879), p. 469.

it were unjust not to admit that Mr. Hearn's work is one of great learning, ability, and value, and that it does honour to the University of Melbourne, in which he now holds office, as well as to the author's Alma Mater, the University of Dublin.³¹

In the last chapter of this study two of Hearn's views expressed in the Aryan Household will be discussed. In spite of his "evolutionary" views of society in general, Hearn held that the state was not a spontaneous growth. Also of interest to the economist is Hearn's theory of the origin of property.

Hearn seemed to have a taste for writing the textbook type of general treatise. Each of his four major books, including the Plutology, are written in this style. Hearn was unmoved by any of the controversies of the hour; each of his major works was written in a separate field as if the author were writing for his own satisfaction only. Had Hearn, instead of writing the Plutology but with the same skill written a treatise on a special topic in political economy he would be better remembered today. He could have easily stirred interest in his work by elaborating upon his contributions in the British periodicals. But this Hearn did not do. He did not even bother to reply to Cliff Leslie's points of criticism in the latter's review of the Aryan Household. Perhaps Hearn was busy with his next book.

³¹Ibid., p. 476.

Hearn's last book, The Theory of Legal Duties and Rights: An Introduction to Analytical Jurisprudence,³² was published in 1883. This work did not earn the international reputation enjoyed by the others, but parts have been respectfully quoted by eminent jurists of this century, including Dean Pound.³³ In the Legal Duties we find a mature statement of Hearn's theory of the state and a juristic expression of his liberalism, an excellent reply to the complaint that the early economists were vague in defining the proper functions of the government.

William Hearn was an uncommon man. In spite of his scholarly work, he had a somewhat slighting attitude toward academia. He did not recognize teaching as a profession! There were, according to Hearn, three, and only three, professions: the Law, the Church, and the Army. Current critics of the theory class can smile as they read the following quotation from Plutology:

We are familiar with the want of practical ability frequently observable in men of great speculative powers and of remarkable erudition. It was a remark of the Chancellor Clarendon, no unfriendly critic surely, that "of all mankind none form so bad an estimate of human affairs as churchmen." And this want of political tact and skill is even more conspicuous in that class of learned and studious men whose lives are devoted to academic pursuits. So sensible indeed of this besetting weakness are

³²Hearn, Legal Duties.

³³Roscoe Pound, Jurisprudence, Vol. III (St. Paul: West Publishing Co., 1959), pp. 717-718.

the most eminent members of that class that, sometimes, as in the case of Savigny, they deliberately seek some share in the duties of active life as a means of intellectual growth and invigoration.³⁴

The last sentence quoted may well have been a bit of autobiography. As noted, upon becoming Dean of the Faculty of Law, Hearn resigned his chair. This does not mean that he did not continue to teach political economy. Hearn was snapping his fingers at a loophole in a university statute that prohibited "professors" from seeking political office. He announced that henceforth he was to be known as "Dr. Hearn" and offered himself as a candidate for parliament. Although his first two attempts were unsuccessful, he was elected to parliament in 1878 as "Dr. Hearn." The next year he was elected to the legislative council. He served in these bodies until his death in 1888. As a legislator of high repute, as the director of a bank, as chancellor of his Church diocese, and as editor of a newspaper, Hearn's involvement in the affairs of the world is especially remarkable for a man who earned an international reputation in several fields of scholarship.

Douglas B. Copland has referred to Hearn's ambitious codification of the laws of Victoria as his magnum opus. Hearn's proposal, which is outlined in an appendix to his

³⁴Hearn, Plutology, p. 440.

Legal Duties, serves well to illustrate the sincerity of his efforts to use his learning for the betterment of his fellowmen. Hearn's immense Draft Code, which ran over 700 pages, was approved by a Joint Committee of both Houses in 1887, but critical reports were submitted by the Victorian council. Hearn continued to work on the Code but he died between the Parliamentary sessions of 1887 and 1888 and his project was abandoned.

Hearn was also, for a brief time, the chancellor of the university. Copland reports that on matters of university politics Hearn was extremely conservative. Hearn once complained that "if change be the law of life, the university is one of the liveliest places on the face of the earth." Again, he called for "no more statutes for ten years." Hearn held the office of Chancellor from May until November of 1886. Once in office, he moved quickly to implement his plans for the university and in the process of doing so, infuriated his old enemies and earned some new ones. But he had on his side only slightly less than a minimal winning coalition, for he was defeated by a vote of 384 to 363.

There are some interesting comparisons to be made between Hearn and Adam Smith. Both men had at one time taught formal logic and eagerly gave it up, sensing its unimportance to the student of society. Both men were classicists and legal scholars. Both men contributed to

the science of wealth but their scholarly ambitions reached beyond "political economy." Perhaps most important is the deference toward what Marshall would call the "people in the ordinary business of making a living." This is in reference to humanism, not only as a noble character trait, but as a scientific attitude. It seems natural for a botanist to love plants and for a chemist to believe there is order among the elements, but too often the social philosopher looks upon the material of his investigations less kindly. Were there no order in popular thinking, there would be no data for a science of society, if such a thing as society could exist under those conditions. If he is to know more than the masses know, the philosopher must first know as much. There is a passage in Adam Smith's Lectures on Justice, Police, Revenue, and Arms in which that great thinker rejects the contract theory of the state.³⁵ More important than his opinion of the doctrine is his refusal to consider what was not understood by the ordinary man. Hearn's courteous submission to society's understanding of itself is reflected throughout his work, and in the introduction to the Aryan Household he cautions against judging before understanding:

But in discussions relating to human conduct . . . the inquiry relates not to the character of the

³⁵Edwin Cannan (ed.), Lectures on Justice, Police, Revenue, and Arms (New York: Augustus M. Kelley, 1964), p. 12.

belief, but to its existence. We ask not whether such a belief be true or be false, but whether men have or have not entertained it and acted upon it.³⁶

This respect toward people "as they are" is reflected too in Hearn's love of languages and in his use of philological evidence in his work. Hearn's first position, it is recalled, was as a professor of Greek. Dugald Stewart, in describing Adam Smith's stay in England, used words applicable without change to the infancy of Hearn's career:

It was probably also at this period of his life, that he cultivated with the greatest care the study of languages. The knowledge he possessed of these, both ancient and modern, was uncommonly extensive and accurate; and, in him, was subservient, not to a vain parade of tasteless erudition, but to a familiar acquaintance with every thing that could illustrate the institutions, the manners, and the ideas of different ages and nations.³⁷

In addition to the knowledge gained from linguistic studies of the institutions and customs of different ages, such studies develop the evolutionary or developmental turn of mind and sharpen the ability to understand generations of adaptation. That Hearn's mind was wired this way is shown in the rapidity with which he assimilated Darwin's work into the Plutology. For the absence of this manner of thinking there is no better illustration than John Stuart Mill.

³⁶Hearn, Aryan Household, p. 15.

³⁷Dugald Stewart, "Account of the Life and Writings of Adam Smith, LL.D.," printed in Adam Smith, The Theory of Moral Sentiments (London: Henry G. Bohn, 1853), p. xiv.

In light of what is so often said of the impact of Darwin on religious thought in the nineteenth century, it should be noted that Hearn was a deeply religious man but had much less trouble with Darwin than Mill, who viewed Christianity as the "ne plus ultra of wickedness."³⁸ In a letter to Alexander Bain, Mill wrote of the Origin of the Species:

Certainly nothing can be at first sight more entirely unplausible than his theory, and yet after beginning by thinking it impossible, one arrives at something like an actual belief in it, and one certainly does not relapse into complete disbelief.³⁹

Mill's inability to understand evolutionary adaptation, what Smith called the "mean and trifling adjustments of the parts to the whole," is reflected too in his hatred of the English common law. In his Autobiography he tells his readers of the "chaos of barbarism called English Law" and how he became a new being upon reading Bentham.⁴⁰

In sharp contrast is Hearn's affectionate understanding of what Hayek would call "order as a result of human action but not of human design."⁴¹ In explaining

³⁸John Stuart Mill, Autobiography (New York: Henry Holt & Co., 1873), p. 41.

³⁹John Stuart Mill, Letters, ed. Hugh Elliot (London: Longmans, Green and Co., 1910), p. 236.

⁴⁰Mill, Autobiography, pp. 63-64.

⁴¹F. A. Hayek, "The Results of Human Action but not of Human Design," Studies in Philosophy, Politics, and Economics (New York: Simon and Schuster, 1967), Chapter Six, pp. 96-105.

the Constitution of England as forming a part of the Common Law, Hearn writes:

Like the phenomena of language or the usages of common life or the various developments of co-operation and of exchange, the principles of justice are, sometimes with greater sometimes with less success, spontaneously developed in the social state. In our country the course of this evolution has met with little disturbance. There, while the mechanical contrivances of political inventors have crumbled away in the hands of the projectors, the goodly tree of British Freedom, selecting from the kindly soil and assimilating its fit nutriment, still increases its stately bulk, and still extends its unequalled development.⁴²

One would think that at least one of the many different "schools" of economics that have emerged in this century might have worked to keep Hearn's name alive. The most obvious reason for the decline in Hearn's reputation was made clear in the introduction to this essay. In addition to this there are other reasons which might be given. Hearn wrote only one book in economics that had a chance at immortality yet he gave it a suicidal title. The *Plutology* is deceptively simple; Marshall's description of it as being "at once simple and profound" was right on the mark. But in order to appreciate the "profundity" the book must be read carefully. Most modern economists who have seen it would probably class it with Mrs. Marcet's Conversations as being fit for schoolgirls. There is very little explicit criticism of particular doctrines which Hearn did not

⁴²Hearn, Government of England, p. 2.

accept and Hearn hid his positive contributions. The original and sound ideas in the Plutology are not of the type which captures the imagination of academic economists--there are no square-root formulas, no counter-intuitive definitions, no grand laws, no proofs based on geometric series, no abstractions. Hearn's free-trade views cost him disciples in Australia but his liberalism was expressed in a plane too high to have popular appeal among admirers, for example, of Bastiat.

In spite of these many adverse factors, Hearn's reputation as an economist did receive a push upward in the 1930s. In a 1934 paper in Economica, F. A. Hayek suggested that the marginal productivity doctrine had come from Longfield to Jevons through Hearn's Plutology.⁴³

In a 1935 paper in the same journal, "Some Nineteenth Century Irish Economists," J. G. Smith surveys the work of those men who had been associated with Trinity College. Smith suggested that perhaps "Hearn was the most remarkable of the entire group . . . and as an economist his reputation stands deservedly high."⁴⁴

⁴³F. A. Hayek, "Carl Menger," Economica (London: The London School of Economics, November 1934), p. 395.

⁴⁴J. G. Smith, "Some Nineteenth Century Irish Economists," Economica, New Series, No. 5 (London: The London School of Economics, February 1935), p. 29.

Also in 1935, D. B. Copland delivered two lectures in Melbourne which were published as W. E. Hearn: First Australian Economist.⁴⁵ Hayek submitted a critical review of this to Economica, saying:

This little volume is a welcome addition to our meagre knowledge of this great economist But it is feared that such an attempt to use Hearn as a peg on which to hang a discussion of later Australian economics will do little to serve the memory of a man who had a singular gift to present original views in the most apt and lucid language. . . . An appreciative treatment of Hearn's work in respect to later developments and against his background at Trinity College still remains a desideratum.⁴⁶

There was no response to Hayek's suggestion, but the question of Trinity College was to be raised again. In a 1945 paper that was to become better known than the earlier one by E. G. Smith, R. D. Black attempted to show that at Trinity College the early holders of the Whatley Chair of Political Economy were uniformly utility theorists.⁴⁷ Black reconstructs the early Trinity environment as one in which the utility theory of value was a foundation stone of political economy. But he confines his consideration to the publications of the holders of the Whately Chair and had his eye

⁴⁵Copland, W. E. Hearn.

⁴⁶F. A. Hayek, "W. E. Hearn: First Australian Economist," Economica (London: The London School of Economics, February 1936).

⁴⁷R. D. Black, "Trinity College, Dublin, and the Theory of Value, 1832-1863," Economica (London: The London School of Economics, August 1945), pp. 140-148.

open, not for subjectivism but for value theory as political economy. For these reasons Hearn, of whom Black surely knew through Smith's paper, was not mentioned here or in his later book, Economic Theory and the Irish Question.⁴⁸

Although shared by competent historians of economics such as Schumpeter⁴⁹ and Kirzner,⁵⁰ Black's view of the existence of a "Dublin School" is to be suspected. The efforts to establish the existence of such a school tell much more of the thought of this century than of the last. The most remarkable thing about Trinity College during the nineteenth century is not the unity but the diversity of economic thought. No regular course, it is recalled, was taught in political economy, and there is no noticeable pattern either in the course of study or in the theoretical orientation of those outstanding political economists coming out of Trinity College during that period. Hearn and Edgeworth took degrees in the classics; Longfield, Ingram, and Hancock were in science or mathematics; and Cliff Leslie and J. E. Cairnes studied Ethics and Logic. It would be

⁴⁸R. D. Black, Economic Theory and the Irish Question (Cambridge: Cambridge University Press, 1960).

⁴⁹Schumpeter, History of Economic Analysis, p. 464.

⁵⁰Israel Kirzner, The Economic Point of View: An Essay in the History of Economic Thought (New York: D. van Nostrand Co., 1960), pp. 72-73, 202.

difficult to find a basis for grouping any two of these, much less the whole lot as a "school." Yet this is an impressive list; perhaps there is something to not having a tutor or regular course in economics!

Hearn's contemporaries at Trinity were Cliff Leslie and John E. Cairnes. If there had been, in the early forties, anything resembling a "Dublin School," its tenets were certainly not forced upon this trio. More significant than the snippets of modern value theory extracted by Black from the Dublin publications is the presence of an atmosphere uncontaminated by the more sophisticated doctrines of the Ricardian school. Mill's Principles (1848) were yet to bring his authority behind Ricardianism and Adam Smith was still regarded as the greatest expositor of the theory of wealth. Say, Malthus, Senior, Ricardo, and of course Longfield were read but a student could feel free to go his own way.

Since the Second World War there have been two treatises on Australian economic thought in which Hearn's name of course appears. The first of these, by J. A. La Nauze, has chapters on "Jevons in Sydney," "Hearn and Economic Optimism," and "David Syme."⁵¹ The section on Hearn, however, is really little more than a sustained effort to discredit earlier praise of Plutology. Although

⁵¹La Nauze, Political Economy in Australia.

La Nauze suggests that the Plutology be read as a "source-book for the history of political economy" it is clear that he would prefer that it be forgotten. In the opening paragraph of the chapter on Hearn, La Nauze writes:

The history of economic thought in this country is as yet unwritten; . . . If this essay permits a future historian to estimate the value of Hearn's contribution to political economy in a few early pages of a long book, my present purpose will have been achieved.⁵²

La Nauze finds only two causes to give Hearn a place in the history of economics outside of Australia. He concedes that the Plutology influenced Marshall and he credits Hearn with having written the

first book in English (and I think in any language) systematically to apply the Darwinian theory of organic evolution to political economy, and to insist that the proper method for the study of economic society was biological.⁵³

La Nauze, among modern economists writing of the Plutology, is both the most thorough and the most critical. Yet one sympathetic to Hearn can still have the pleasure of finding no condemnation of Hearn's specific economic doctrines. Hearn is accused of being unoriginal and overly "optimistic." Hearn's "optimism" has already been discussed. But La Nauze unfairly links Hearn's prophetic liberalism with his analytic liberalism and puts both of these under the label of "optimism." La Nauze

⁵²Ibid., p. 45.

⁵³Ibid., p. 61.

writes as if science has found the latter to be completely in error and he fails to mention that the former was, in Hearn's day, excusable.

La Nauze evaluates the Plutology entirely in the reflection of modern economics. Using originality as a criterion, La Nauze takes those sections of Plutology that were praised by others and tries to show that they were derivative. In particular, the chapters on Wants, Capital and Exchange came under heavy attack.

Thus Hearn is not the first English writer to discuss wants in some detail in connection with political economy. But he was the first to give the subject a chapter to itself at the beginning of a treatise covering the main traditional topics, and to make it a recurrent theme. . . .

But this is an innovation only in English writing.⁵⁴

Representative of La Nauze's evaluation of the Plutology is his treatment of Hearn's chapter on capital. La Nauze maintains not only that Hearn's views were taken from Senior, Mill, and especially Rae, but also that Hearn failed to see the better part of the works from which he drew so heavily. Others, to be sure, will see virtue in some of these "sins of omission." According to La Nauze, "Hearn refuses to give capital the central place in the economic system." Also, Hearn ignored Mill's "four propositions concerning capital," according to La Nauze, and most "notably that 'the demand for commodities

⁵⁴Ibid., pp. 57-58.

is not a demand for labour.'" "The most striking omission, however, is that of any references to Rae's theory of capital with its prominent treatment of the 'orders of instruments.'"⁵⁵

In the two biographical works of Hearn by Australian economists (Copland and La Nauze) there are signs of a felt need in that country for a special theory of "Australian economics." Hayek alluded to this in his review of Copland's little book and the same can be detected in the closing sentences of La Nauze's chapter on Hearn.

[I]f Hearn is to be called the 'first Australian economist' it is because he lived and wrote in Australia and not because of what he wrote. The 'Australian economics' which developed during this century affords a direct contrast. Its stimulus lay in immediate problems of the Australian environment . . . to be discussed within an institutional framework peculiar to Australia; for example the existence of a minimum real wage. Nothing could be further removed from Hearn's approach to political economy.⁵⁶

A somewhat more favorable, though much less extensive, treatment of Hearn is to be found in the second recent treatise noted. Crauford D. W. Goodwin's scholarly Economic Enquiry in Australia (1966) is, as the author says in the introduction both "an essay in economic history and the history of economic doctrines."⁵⁷ Perhaps it is better described as a work in economic development

⁵⁵Ibid., pp. 65-66.

⁵⁶Ibid., pp. 93-94.

⁵⁷Goodwin, Economic Enquiry in Australia, p. xi.

or the history of Australian economic theory and policy, with the emphasis being on policy. Goodwin did not, of course, in such a work, have reason to evaluate systematically Hearn's Plutology or other writings, but on many occasions, in connection with particular topics, Hearn's competence and influence is noted.

Professor Goodwin spent six months in Australia and left with the impression that Hearn had commanded considerable respect during his lifetime. The Plutology was used as a college text throughout the colony and at Melbourne until the first decade of this century.

According to Goodwin, Hearn's

classes contained such distinguished future public figures as H. B. Higgins, H. G. Turner, and Alexander Sutherland. Hearn's impact on Australian thought by his teachings and his writings was substantial. In several areas of policy controversy, he was cited often for authority.⁵⁸

There is a certain irony in that some of the evidence cited by Goodwin illustrating the reverence held for Hearn would have displeased the strong advocate of laissez faire. Sections of the Plutology explaining the interdependence of the economic sectors were used to make a case for government intervention.⁵⁹ The Aryan Household supplied land-reformers with precedent for collective control of property.⁶⁰

⁵⁸Ibid., p. 570.

⁵⁹Ibid., p. 247.

⁶⁰Ibid., p. 95.

In addition to Hayek and Goodwin, there are a few other economists of this century who have examined the Plutology. But only in a detailed treatise or article is Hearn's name likely to be found and the references are almost always in respect to some particular point. Haney suggests that Hearn influenced Jevons.⁶¹ Stigler includes Hearn among the "unsuccessful discoverers of the principle of diminishing marginal utility."⁶² Schumpeter had examined the Plutology apparently because of the praise by Jevons and Marshall, but he seemed to be unimpressed.⁶³ Of recent writers, only Israel Kirzner seems to have had curiosity about Hearn's novel approach. Kirzner cites Hearn as a forerunner of the "praxeological" approach to economics.⁶⁴ He also notices Hearn's rejection of economics as the science of exchanges.⁶⁵ That Kirzner should associate Hearn with the "praxeological" or "Austrian" school may at first seem odd in light of what has been said here of the Plutology. Probably no economist has outdone Hearn in praising Bacon. But although Hearn employs the

⁶¹Lewis H. Haney, History of Economic Thought (New York: Macmillan Co., 1949), p. 387.

⁶²Stigler, "Development of Utility Theory," p. 79.

⁶³Schumpeter, History, p. 826.

⁶⁴Kirzner, The Economic Point of View, p. 212.

⁶⁵Ibid., p. 202.

inductive method, he has a tendency to state his conclusions with such force that his readers might believe that they were found a priori. It was probably some of these passages that arrested Kirzner's eye.

CHAPTER III

THE SCOPE AND DESIGN OF PLUTOLOGY

Hearn drew from many sources. From Adam Smith he took his basic understanding of a social economy. His contractual approach was evident in his early work (1851). In the years following Hearn was to read widely in Political Economy. From the Plutology it is clear that he was more familiar than were other British writers, including Mill, with the continental developments in political economy. Hearn gathered bits and pieces from many sources, but he very boldly constructed a conceptual scheme which was ingenious and completely original. He was the architect of a logical framework which spared him many confusions and famous inconsistencies. He approached the subject from a vantage point that differed from that of any of his predecessors, putting many old doctrines under new light. This will be treated in the next chapter as his contributions to economic analysis. The present concern is with what might be called the syntax of economic theory.

In the introduction to Plutology, Hearn was at pains to establish grounds for a "science" as opposed to an "art."

When he professed to treat the theory of wealth he was, in effect, saying that that is "what economists do." Although Hearn, as Smith before him, had included wealth in the title of his treatise, in no sense should this be understood as "static" analysis. As it turns out, wealth can only be understood as the, in Smith's terms, ratio of "necessaries, amusements, and conveniences of life" to the "annual fund of labor." In Hearn's terms, this is equivalent to the ratio of satisfactions to efforts. In the language of modern economics, what is involved is "stock" rather than "flow" analysis. The advantages of stock analysis should be obvious and the neoclassical theory could be improved if pursued in this manner. That is, all decisions should be conceptualized as capital decisions; what are called "consumer decisions" are simply those located close (in time) to the end of the process.

In giving his reasons for rejecting the name Political Economy, Hearn covers considerable methodological ground. "Economy" suggests an art rather than a science.

Thus, partly from its connotation, and partly from the nature of the subject with which it deals, the name inevitably suggests a code of practical precepts alterable by human will for the purpose of supposed convenience, and not the investigation and the statement of certain sequences that spring from the nature of man and his relations to surrounding objects.¹

¹Hearn, Plutology, pp. 2-3.

The "political" part of political economy brings other problems, for it directs "attention to the society, and not to the pre-existing parts of which that society is composed." By the pre-existing parts of society, Hearn means man in the absence of the social state; the theoretical benchmark is not perfect competition but anarchy.

To avoid these difficulties, Hearn suggests that the theory of wealth be pursued as the investigation into wants and man's efforts to satisfy them. The Plutology is thus arranged as an expansion of the implications of the theory of "wants" and that of "efforts." The book can be considered as divided into three parts. The first chapters deal with wants, the instruments by which they are satisfied, and the efficiency of these instruments, which are found to be labor and natural agents. The middle part of Plutology can be said to contain the theory of production. These chapters treat the "contrivances" by which efforts are reduced. There are four classes of these "industrial aids" or "aids to labor": Capital, Invention, Co-operation, and Exchange. The last part of the book is concerned with the special problems of social economics. It will be convenient to analyze these "three parts" of Plutology in turn.

The first six chapters dealing with wants and the means of their gratification are:

Chapter

- I. Of Human Wants
- II. Of the Instruments by which Wants are Satisfied
- III. Of the Circumstances on which the Efficiency of Labour Depends
- IV. Of the Means by which the Efficiency of Labour is Increased
- V. Of the Circumstances on which the Efficiency of Natural Agents Depends
- VI. Of the Means by which the Efficiency of Natural Agents is Increased

Little objection can be raised to Hearn's reasons for there being two, and only two, means by which wants are gratified.

Desire consists in a certain state either of body or of mind. Its satisfaction arises from the presentation of an appropriate object to the part so disposed. This presentation, whether it be made by the person himself who feels the desire, or by some other person in his behalf, must be made by some human agent. The object so presented may be supplied either from some physical source, or from the exercise of some human faculty.²

And, on the other hand,

Independently of any material object, man possesses certain faculties, the exercise of which gives pleasure to himself or to others. He can give advice: he can afford protection: he can relieve pain. He can please the ears with his singing, or the eyes with his painting. He can narrate³ the past: he can describe new scenes of fancy

It is not clear how "protection" and "painting" can be supplied "independently of any material object," but the meaning of this passage is nevertheless clear.

²Ibid., p. 25.

³Ibid., pp. 26-27.

The case of labor acting alone is Smith's "unproductive labor"; Hearn was the first to reject the epithets "productive and unproductive" without denying the distinction or confusing it, as in the case of Senior, with the distinction between a "good" and a "service." The latter distinction is based on proprietary differences. But while labor acting alone is important, natural agents acting alone is not. Hearn saw that in these cases there is no "economic problem." These "free goods" have been discussed in the introduction. There is no cause to investigate the wants which are satisfied effortlessly and labor may "be practically regarded as a primary condition of the gratification of our desires."⁴

If we choose, we may ourselves mine our coal, or sail in search of our oil, or our guano. If we prefer it, we may for a suitable consideration induce some other person to incur the trouble on our behalf. But in any case the trouble must be taken. Labour is the purchase money of all things.⁵

Chapters III and V treat the circumstances which affect the efficiency of labor and of natural agents. By efficiency Hearn does not mean productivity understood as a functional relation; he is concerned with "intrinsic" factors affecting returns. These two chapters read, respectively, much like industrial sociology and economic geography.

⁴Ibid., p. 29.

⁵Ibid.

Hearn's treatment of the efficiency of natural agents can be said to anticipate Erich Zimmerman's functional theory of resources.

The most potent natural agents are not always the most available. The terms productive and profitable are not convertible. It is manifest that no degree of excellence in a particular natural agent can compensate for the absence in its proprietor of any desire at that time for that agent.⁶

Continuing the same theme:

It must not be forgotten that most of these natural facilities and impediments are relative. Their influence whether for good or evil depends in a great degree upon the wealth and still more upon the knowledge of the people among whom they exist.⁷

Perhaps at this point one can digress to note that the acceptance of Zimmerman's "theory" provides some evidence that economics is, in spite of itself, quite anthropocentric. Among the applied fields in economics, resource economics is certainly not the most hostile to quantitative studies. Yet in that field, Zimmerman's World Resources and Industries is regarded as a classic not for its data but for its "functional approach." One cannot find in the words of Hayek or of Knight a more emphatic declaration of subjectivism than he reads in the sentences penned by the geographer:

Evidently resources presuppose a person. They are an expression or reflection of human appraisal. . . . In other words, the word

⁶Ibid., p. 89.

⁷Ibid., p. 92.

"resource" is an abstraction reflecting human appraisal and relating to a function or operation.⁸

Chapters IV and VI treat of the means by which the efficiency, first of labor, and then of natural agents, is increased. Unfortunately, Hearn does not offer an explicit explanation of the distinction between "increasing the efficiency of the means to satisfy our wants" and the "contrivances which reduce our efforts." The distinction is based on direct effects and it is not clear that it is worth making. But Hearn insists that:

Those improvements which increase the efficiency of the actual agent are, in the sense in which the terms are here used, distinct from those inventions the utility of which consists in the abridgement of human labour, and the substitution for it of physical forces.⁹

Perhaps Hearn made this distinction only for the convenience of exposition. Later, in connection with the discussion of the nature of the aid to labor, he writes:

In theory, we may indeed conceive the efficiency of the labour apart from these auxiliaries. But in practice, it is only where all these auxiliaries are in operation that the conditions which determine the efficiency of labour are fulfilled. . . .¹⁰

In his treatment of the "aids to labour" or "industrial auxiliaries" Hearn differs strikingly from any antecedent or subsequent analyst. What may be called

⁸Erick W. Zimmerman, Introduction to World Resources, ed. Henry L. Hunker (New York: Harper and Row, 1964), p. 8.

⁹Hearn, Plutology, pp. 99-100.

¹⁰Ibid., pp. 128-129.

"Part II" of the Plutology could be called the theory of production and consists of the following chapters:

Chapter

- VII. Of the Aids to Labour
- VIII. Of Capital
- IX. Of the Circumstances which Determine the Extent of Capital
- X. Of Invention
- XI. Of the Circumstances which Determine the Extent of Invention
- XII. Co-operation
- XIII. On the Circumstances which Determine the Extent of Co-operation
- XIV. Exchange
- XV. Of the Circumstances which Determine the Extent of Exchange
- XIV. Of the Reciprocal Influence of the Industrial Aids

It is interesting that while the "instruments by which wants were "satisfied" were found to be labor and natural agents; the "aids to labor" are not co-ordinate with these. This was discussed in the introduction to this study. In three sentences of parallel construction in Chapter VII, Hearn leads up to the investigation of the nature of capital, invention, co-operation, and exchange.

[W]e shall find that there are three ways, and three ways only, in which it is conceivable that man can reinforce his unassisted physical powers. He may since his constitution is complex help himself; or

he may obtain help either from nature, or from other men. He may make his intelligence and his moral powers supplement the weakness of his body; or he may convert to his own use the active forces of nature; or he may procure the aid of other men. From within, or from without, and, if the latter, from either natural agents or other men, such are the only earthly sources from which man can invoke help.¹¹

Capital comes from within. Man "can control his impulses, and forego a present enjoyment for a greater future gain."¹² Invention is the substitution of non-human for human energy.

In every attempt to satisfy human wants some effort intervenes between the desire and its satisfaction. This effort is in its very nature more or less painful, and ought consequently to be reduced to the least possible amount. It is therefore a clear benefit to mankind if any such effort or any part of it can be transferred from human beings to lower animals or to some inanimate force. . . . It is this substitution of elemental powers directed by human intellect, for human muscles acting upon elemental capacities, that constitutes invention.¹³

The third of these contrivances to reduce efforts involves other men, but there are in this genus two species: co-operation and exchange. In other places, Hearn refers to these generically as organization.

But man is not dependent upon his solitary efforts, whether of body or of mind, or upon the assistance that by such efforts he can induce nature to afford. He is by his very constitution social: and he is accordingly able to assist, and to receive assistance from, his fellow-men.¹⁴

¹¹Ibid., pp. 120-121.

¹²Ibid., p. 121.

¹³Ibid., pp. 122-123.

¹⁴Ibid., p. 123.

There are two effects which when perceived give rise to co-operation, in one case to "joint exertion" and in the other case to "separate occupation."

There are many things which one man alone cannot do. . . . There are other acts which, when performed by one person, are sufficient for the wants of several persons. . . . In the former case the combination of labour gives the greatest amount of power; in the latter case the division of employments gives the most judicious use of that power.¹⁵

Exchange is similar in effect to co-operation, but the two must be distinguished.

[I]t frequently happens that two men without any previous communication have severally acquired some transferable objects; and that, when they are mutually aware of the facts, each prefers to his own his neighbor's property. . . . Men consequently are not slow to perceive that exchange is equivalent in its results to undesigned co-operation. But exchange, although it in some respects resembles the division of employments, is essentially a distinct operation. The two agencies differ from each other as a contract of partnership differs from a contract of sale.¹⁶

The merits of Hearn's approach to what is here called the theory of economic production can perhaps best be explained by noticing some of the problems which he avoided. These are mainly abstractions which other economists dealing with a commodity space have had to make and which, in a greater or lesser degree, have invited amending corrections or qualifications to the theory.

In the first place, Hearn avoided all of those errors incident to the pursuit of production theory as coordinate

¹⁵Ibid., p. 125.

¹⁶Ibid., p. 126.

with distribution theory. The words rent, wages, and interest were originally names for different types of payments, not payments to different types of things. There is no reason to suspect that the types of income map into the functional categories most useful for an analysis of production. Secondly, the Plutology offers a tractable analysis without the steady-state assumption. One of the great merits of "stock" analysis is that it does not require that "technology is held constant." Thirdly, there is likewise no reason to "assume" any organizational structure; there are no pre-existing "firms." Men "produce" the firms much as they produce anything else. The facts explained by Ronald Coase's famous theory of the firm receive due emphasis in Hearn's treatment. Lastly, by treating exchange as an interpersonal device to reduce cost, in his discussion of the circumstances which determine its extent, such things as "transactions costs" and "information costs" were given proper consideration. By this is meant that these phenomena, the existence of which cannot be denied, are naturally located in relation to other facts. In the analysis of exchange on a commodity space nothing is implied about the obstacles to exchange. In summary, Hearn's anthropocentric approach achieved for him a high degree of useful generalization with minimal abstraction.

The last part of the Plutology contains the theory of social economics. These chapters are:

Chapter

- XVII. Of the Industrial Organization of Society
- XVIII. Of the Adjustment in Society of the Terms of Co-operation
- XIX. Of Competition
- XX. Of the Social Contrivances to Promote Organization
- XXI. Of the Industrial Evolution of Society
- XXII. Of the Assistance Rendered to Industry by Government
- XXIII. Of the Impediments Presented to Industry by Government
- XXIV. Of Some Causes of Poverty

In Chapter XVII, "Of the Industrial Organization of Society," Hearn explains the requisites and advantages of what has been called, by Ropke, for example, the "social division of labor." Actually, Hearn did not use the expression "division of labor"; he followed Senior in using "separation of employments" but applied this concept only in "intra-firm" analysis, what he called "co-operation." The reader recalls that co-operation included both the combination and the separation of employments. In an earlier chapter, Hearn had said that exchange renders advantages much like those of the separation of employments but not only in respect to labor but also in respect to natural agents. Here he expands on this, calling it

"tacit-cooperation." Its effects are occupational and regional specialization. He followed Mill and was followed by Marshall in discussing the latter under the head of "localization of industry."

In Chapter XVIII, "Of the Adjustment in Society of the Terms of Co-operation" Hearn covers what is usually brought under the heading of functional distribution theory. Fortunately, the reader of this chapter is given some clues as to its contents. It has been noted that the Plutology is deceptively simple. It is a work completely self-contained and written in very good English. But one of the problems in appreciating Hearn's conceptual scheme is that explicit statements of theoretical innovations, when they are given, are often found apart from the treatment of the related specific topics. Also, the title of the chapter sections are given only in the table of contents and often contain information that is not found in the text. Considerably more thought went into the design of the Plutology than is apparent from a first examination. Hearn's statement of a problem often has a disarming effect on the modern economist; the modern theorist is forced to consider that his theory is more complex than reality and that he has been about what Adam Smith would call "a most unnecessary attention." As Hearn defines the problem of the "terms of co-operation" the

separation of distribution from economic production is clear:

The share of each contributor is naturally determined by the amount of his contribution. This rule, although it may be sufficient for homogeneous shares, fails to meet the case where the nature of the contributions differs. By what principle are the relative shares of the capitalist and the labourer fixed? What portion, if any, of the ultimate price is due to nature? Who receives this amount and what is his warrant?¹⁷

Hearn later improves on his statement of the problem, saying that:

Since every product implies labour exerted upon natural agents, and aided by capital, invention, co-operation, and exchange, or by some at least of these agencies, and since the co-operation of nature, whether its character be apparently passive or energetic and active, is gratuitous, and since exchange is only indirectly connected with production, the only remaining parties [to be remunerated] are the labourer, the capitalist, and the co-operator.¹⁸

Subsequently, more will be said on the gratuity of nature, for the present it is enough to note that of the six possible sources of income, all but three were eliminated. By "co-operator" here Hearn means "entrepreneur" or, more exactly, Marshall's "organizer." It was an advancement to recognize this as a function distinct from that of the capitalist. Moreover, by separating this function from that of the capitalist, Hearn was able to apply Longfield's discounted productivity doctrine to capital as well as to labor:

¹⁷Ibid., p. 318.

¹⁸Ibid., pp. 325-326.

A man may borrow money at interest for some undertaking, and may pay labourers to help him. In such circumstances he discounts the shares of his partner the capitalist, and of his partners the labourers.¹⁹

Hearn's treatment of competition (Chapter XIX) takes account of both "potential" and "actual" "readiness on the part of purchasers to outbid [and] on the part of sellers to undersell one another." There is a tendency among subjectivist economists to avoid defining competition in terms of numbers or demand elasticities, and Hearn is no exception:

But although it thus bears a positive name, it must not be regarded as some separate entity. Competition merely implies the absence of restraint.²⁰

Chapter XX is of considerable conceptual interest, for it treats as "social contrivances to promote organization" what might be called nongovernmental "goods" with an element of Samuelsonian "publicness."

Since these expedients relate to social phenomena, they are found only in a state of society. . . . They are in effect secondary industrial aids. They do not directly aid industry; but they are contrivances to promote the action of two primary auxiliaries, co-operation and exchange.²¹

These secondary aids are thus the means of reducing information or transaction costs. Included in this class are fairs and markets, systems of communication and transportation, money and credit. The modern economist might be tempted to include "law enforcement" among these

¹⁹Ibid., p. 329.

²⁰Ibid., p. 334.

²¹Ibid., p. 348.

secondary aids. But a reply, consistent with Hearn's views, to such an objection is not difficult to construct. The establishment of the state is antecedent to contract and exchange. It is not that these industrial aids existed and the state came along and with its strong arm perfected them. The state replaced the clan by taking over its functions, one of which was the avenging of wrong. To punish the domestic evil-doer is thus a primary function of the state; the performance of this function and the existence of law are the same thing.

It has already been said that Hearn's Chapter XXI, "Of the Industrial Evolution of Society," was admired by Marshall. This is economic history. The evolution of society is presented as a law strictly analogous to the development of any organism.

The same phenomena which thus characterize the evolution of an individual may be observed in the evolution of society. In both cases the evolution consists in, or at least is invariably attended by, an increase of bulk, a greater complexity of structure, and a consequent interdependence of parts.²²

Hearn presses the analogy to its limit, but a not unimportant insight thereby gained is the increased instability of more complex structures.

In some of the lower forms of life, so loose is the relation of parts that when the creature is cut into two each portion still preserves its vitality; while in the more highly organized

²²Ibid., p. 384.

animals the loss even of a small portion of the structure causes always constitutional disturbance and often death. . . . The bankruptcy of even one great firm sometimes, as we know, involves in its fall numerous distant, and in appearance even unconnected, establishments.²³

Hearn continues this theme in the last chapter of the Plutology, "Of Some Causes of Poverty." The causes of poverty include, along with natural disasters, those caused by man, and most importantly, "those which are incidental to the organization of society." Thus, as in Marshall's Principles, unemployment and the commercial crisis are understood as disorganization.

In Chapters XXII and XXIII, Hearn treats, respectively, the assistance and the impediments to industry by government. The primary function of government is more fundamental than the secondary aids or social contrivances to facilitate organization discussed above. The state does not merely aid co-operation and exchange; it makes these possible. A more carefully developed theory of the state is found in Hearn's later works but two elements of his theory which were elaborated in the Aryan Household and the Legal Duties appear in the Plutology. The "spirit of reverence which is implanted in man" toward a father-image is the necessary "external force" which breaks through the "vicious circle" of vengeance.

The Russian serf loves his Father the Czar. The Chinese worship their Emperor as the Son of Heaven.

²³Ibid., p. 385.

The devotion of the clansman, even the loyalty of the Englishman, are something different from any cold consideration of personal interest.²⁴

It is difficult to find objection to this explanation of the permanence of the state union. Breaking the circle of vengeance is equivalent to "protection" or the "maintenance of rights."

Before the development of civilization and its many aids to our gratification, society existed. Its object at that time must have been not the interests that were subsequently developed, but the protection of men in the exercise of their faculties; or in other words the maintenance of rights. But the function by which a thing begins to exist is its essential function. Consequently the maintenance of rights is the primary duty of government.²⁵

The reader will notice that the government does not create rights; it only maintains them. But the primary duty of government must not be understood too narrowly:

In maintaining rights therefore the state has to afford security both to person and to property; but it has to do something more. It must determine what constitutes property, and what amount of interest a proprietor may take. It must regulate the formation of contracts between the living, and the transmission of the interests of the dead. It must determine relations which have been left indeterminate, or not sufficiently determined, by the parties themselves. . . .

The industrial importance of this portion of state duty can hardly be overstated. Contracts are the very life of co-operation and of exchange.²⁶

²⁴Ibid., pp. 408-409.

²⁵Ibid., p. 409.

²⁶Ibid., pp. 411-412.

In addition to the primary function of government, Hearn admits others and he sees the need for a precise test.

Of those who concede that there are many matters with which notwithstanding many precedents to the contrary the state ought not to interfere, but at the same time contend for an enlarged sphere of state activity, no one has succeeded in defining the point at which that activity should cease.²⁷

Typically terse is Hearn's rejection of the rule of expediency:

But the rule of expediency is not a solution of the problem: it is at most merely a statement of it. The most absurd interferences of the state are due to the belief that they will be beneficial. . . . The expediency of the act, or rather our belief in its expediency, is implied in the act itself.²⁸

Hearn supplies a definite test which he deduces from the nature of the state as a society without express objects.

A preferable explanation may perhaps be obtained from a consideration of the nature of the state. The state is a society; that is to say, its objects are not expressly stated, like those of a trading company or other association, but arise out of the relations subsisting between its members. But every man enters society Thus the care of those matters and those only which are of common interest constitutes the proper function of government. If all the members of the community be directly interested in any act, the state should undertake the performance of that act. If a portion only of the community be concerned, the matter should be left to the attention of the parties interested in its accomplishment.²⁹

²⁷Ibid., p. 417.

²⁸Ibid.

²⁹Ibid., pp. 417-418.

From his examples, it is clear that by the community's "direct interest in any act" Hearn intended his test to include "nonpecuniary externalities" only. In his application of this principle it turns out to be much like the externality criterion for the scope of government as used by Gordon Tullock in his Private Wants, Public Means.³⁰

There are some apparent anomalies in legislation which this principle explains. Matters which in one country are obviously unfit subjects for legislation excite in another country the greatest public attention. For this difference we may now give an answer somewhat more precise than the usual observation that the circumstances differ. In Holland, for example, the conservation of the sea dykes is obviously a matter not of individual but of general concern. . . . In Australia the rapid growth of the thistle and the burr, and the facility with which the seed of these plants is diffused, have rendered their destruction a matter of earnest legislative solicitude. . . . The planting with forest trees the vast steppes of Southern Russia with a view to mitigate the aridity of the climate is evidently a matter of public concern.³¹

In a second application of his principle, Hearn writes:

This principle also enables us to draw a distinct line between the functions of the central government and of the local authorities. . . . All matters then that are of exclusively local interest are the fit subjects of local control.³²

This is a remarkably "modern" treatment of the problem of the limits of government--a problem for which

³⁰Gordon Tullock, Private Wants, Public Means: An Economic Analysis of the Desirable Scope of Government (New York: Basic Books, Inc., 1970).

³¹Hearn, Plutology, p. 419.

³²Ibid., p. 422.

few have suggested a general solution. Yet Hearn's solution to this, as to other problems, unfolds so naturally in the expansion of his theory of wealth that it went unnoticed.

CHAPTER IV

SOME CONTRIBUTIONS TO ECONOMIC DOCTRINES

From the standpoint of later developments in economic theory, there is much in Hearn's work that is of interest. Hearn's approach did not prevent him from seeing solutions to problems that were later conceptualized differently. Hearn's novel approach may have caused some of his contributions to be forgotten, but perhaps not completely so. Through Jevons and Marshall some of Hearn's ideas may yet be alive.

In his paper, "On Cottier Rents," Hearn finds that there is a difference in the application of the "Ricardo theory" to different circumstances; there is a difference between cottiers' rents and farmers' rents. The difference arises not as a result of the differences in the two types of tenancy but rather in their causes. Cottiers are found where there is no field of employment for capital other than agriculture. In the case of cottier rents, the limit (to land rent) is the wage rate. That is, the whole population looks to land for their support. In the case of farmers' rents, the limit is the rate of profit in competing industries.

If, then, the monopolized agent is put up to public competition, its price will be the exact difference

between its productiveness and the productiveness of the ordinary application of capital. It will not be less; because if it were, the purchaser or lessee would still obtain higher profits than his neighbour. It will not be more; because, if it were, his profits would be lower than those obtained by the ordinary branches of industry. . . .

But, if we suppose a case where, from whatever causes, there is no field beyond the land for the employment of capital, the case will be very different. . . . Since there is no other means of occupation, the whole population must look to the land for their support. The laws of value and competition will still hold good. . . . But the demand in the present case consists of the whole population, while in the former it consisted of monied men. In the one case the cultivation is for profit, in the other for actual subsistence.¹

With these considerations in mind, Hearn examined several proposals for the elimination of Irish distress. The first was Mill's suggestion to fix rent. Hearn recognized that that would cause a shortage and then adds a "fundamental objection" which anticipates Mises' statement of the problem of pricing under socialism:

In the case of any such legislative interference, the landlord will either be obliged to let his land at a fixed price, or he will not. If he is obliged then there will be left a residue who can have no land at all; for, from the very statement of the case, it appears that the demand for land is excessive. If he is not obliged to let it at a fixed price, then those who will obey the law must go without the land, while those who are willing to evade it must, in addition to the natural price, pay for the risk which such evasion would cause. There is, however, a fundamental objection to any scheme for the artificial limitation of rent, for it removes all data by which rent could be fixed. Even at present it appears that it is no easy matter to get two experienced professional men to agree in their valuation of a farm, how much would the difficulty be increased when they no longer had the ordinary letting price of the country to guide them? . . . To interfere with competition would be to reject our only guide. It would not alter the value of land, but would prevent

¹Hearn, Cottier Rents, pp. 3-4.

us from finding out exactly what that value was. The difficulty would be only increased, and the confusion confounded.²

Hearn also objects to the establishment of the ownership of land without the power of disposition:

Another method which has been proposed for relieving the distress arising from the fierce competition for land is, to give the occupiers a permanent title, to convert them into owners in fee We fear that this plan looks very like doing evil that good may come; there certainly appears full room for Lord Bacon's hint on such occasions, that we are certain of the evil, but very far from certain of the good. . . . "The magic of property" will, indeed, do much; but it must be property in its fullest sense, with all its accompanying incidents. It is not merely because they have peasant proprietors that most of the continental states are so rapidly improving in their social condition, but because those proprietors can sell their estates when they please.³

If rents are to be changed, then, there must be an alteration in either the demand or supply and there is no practical means of altering the demand.

The demand is the existing population. To interfere with the progress of population, as Mr. Mill evidently desires, seems to be hopeless, even supposing that it were desirable. Emigration on such a scale as to afford present relief seems now, for several reasons, to be generally considered impracticable. The creation of other channels of industry is, indeed, most important, but it is the consequence rather than the cause of an improved social state; we must turn, then, to the other constituent of value, and examine the supply.⁴

The real impediments to Irish prosperity are found to be in the state of the law of real property.

²Ibid., pp. 6-7.

³Ibid., p. 6.

⁴Ibid., p. 7.

We would, however, observe, that the only sound policy in this case is a complete and total removal of the present restrictions. As long as the law allows of numerous co-existing interests in the land, the courts of justice must take cognizance of all these interests; as long as the law allows of remote and complicated titles, investigation will be expensive and conveyances lengthy. . . . The beneficial effect of the unfeudalisation of land would appear both directly and indirectly. The demand for land would be, of course, satisfied in the same proportion as the additional land brought into the market increased the supply. But, besides this, as the condition of the people improved, a demand would gradually arise for the articles of luxury, and thus a continually increasing field of employment would be open for the surplus labor of the country.⁵

In the Cassell Essay, Hearn examines in much greater detail the impediments to the transfer of rights and how these have practically "limited the supply of land." Hearn anticipates what might be called a Coasean objection to his argument:

But it may be said--granting that such restrictions exist as to render the transfer of land practically impossible, still it must be the interest of both landlord and tenant to make the land produce as much as possible, and so the public wealth cannot be very materially checked. We shall soon see how mistaken this idea is.⁶

The obstacle to a contractual remedy is the absence of permanent disposable ownership rights.

[T]he great majority of proprietors are tenants for life, and, as such, have but a very limited interest in the improvement of their land. Their settlements give them no power to charge the land except for the portions of younger children. The unbending feudal rule, . . . , divests them of all

⁵Ibid., p. 8.

⁶Hearn, Cassell Essay, p. 30.

control over the money when it is once expended upon the land. . . . We shall find that the same cause prevents the tenant, however anxious he might be, from effecting any permanent improvement. The rigid old rule . . . applies as well to the tenant as to the landlord. . . . But, again, it may be urged, why do not landlords give leases for such a time and at such a rent as would encourage the tenant to make these improvements? The answer is very plain:-- Because they cannot. A tenant for life has seldom very extensive leasing powers, and he is generally obliged to let at the best rent; and as to agreements, he has no more power to charge the inheritance for his tenant's benefit than he has for his own.⁷

Although these early essays are of interest, Hearn's ability as an economist must be established on the Plutology. The careful reader of the Plutology will often be set back by Hearn's trenchant observations on method, doctrines, or related matters. Sometimes the insight is not of great importance:

"To have never done anything," observes M. Say, "but make the eighteenth part of a pin is a sorry account of a human being to give of his existence." It may however be questioned whether the account would be more satisfactory if its subject matter were not the fraction of a pin but an entire pin.⁸

Hearn continues this discussion with some examples and concludes that the objections are not against the separation of employments but against "overwork." The point is a disarmingly simple one and the thoughtful

⁷Ibid., p. 30-31. In the last chapter of this thesis, the "Coasean" approach to problems such as that discussed here is criticized. But the general conclusion can be summarized here. There are always obstacles to a contractual path to the Pareto frontier. To place all of these under the rubric of "transactions costs" leaves the analysis rather sterile.

⁸Plutology, p. 210.

reader is forced to wonder whether Hearn has overlooked something or whether the critics of the division of labor have been about an "unnecessary attention." In like manner the Malthusian is given cause to reflect:

It is in fact impossible that a wealthy population should increase without restraint. The two conditions are inconsistent. The same causes which contribute to the increase of wealth, contribute also to the increase of that forbearance which is the main check upon human fecundity.⁹

But before the reader dismisses this as overly optimistic he should read on and look at Hearn's evidence to support the view that "over-population" is always found with independent causes of poverty. "But it was the poverty that produced the population, not the population the poverty."¹⁰

Hearn offered as a general historical law that man proceeded from the use of less efficient to the use of more efficient natural agents. The rule seems to deny resource depletion and thus lacks a theoretical foundation, but in his discussion he reconciled the theories of Ricardo and Carey. Ricardo had reasoned that men will use increasingly less fertile land and Carey, it is recalled, had shown that all experience was to the contrary. As the industrial aids are developed, according to Hearn, it becomes profitable to cultivate land of greater absolute fertility than that which was previously used.

⁹Ibid., pp. 393-394.

¹⁰Ibid., p. 396.

Mr. Ricardo and his followers in effect recognize these principles when they admit that land may be inferior not only in point of fertility but in point of situation. Situation is only one, although a very important one, of several conditions.¹¹

In the summary of his argument, Hearn in effect denies the existence of a historical law of rent:

If the cost of production on two separate estates be different, this difference may arise not less by the diminution of the cost upon the one than by its increase upon the other. This difference Mr. Ricardo truly describes as rent. He has correctly explained both the nature of that source of revenue and the principles which determine its amount. But he unduly limits the circumstances which occasion the difference in cost; and he excludes in favour of one cause of rent a second and more important cause.¹²

More importantly, Hearn distinguished between the historical law and the law of production and he saw that in the latter sense the law of diminishing returns was general:

We have still to consider whether it be true that additional labour applied to the same land under the same conditions of agricultural skill gives a constantly decreasing return; and if so, whether the circumstance be peculiar to land. The proof of the existence of this tendency is the fact that occupiers of superior lands frequently bring under cultivation lands of inferior quality, instead of increasing their expenditure upon the better soil. It is found by experience that if the outlay upon any particular field be doubled, the doubling of the product does not follow. . . . Thus the aspect under which this law is of practical importance to us is not the steady tendency towards diminishing returns, and the counteracting influence, so far as it goes, of improvements. It would be more exact to say that improvements in agricultural skill are a condition precedent of any increased return.¹³

¹¹Ibid., p. 108.

¹²Ibid., p. 114.

¹³Ibid., p. 115.

Hearn goes on to present the logical basis of the law and its general applications:

But whatever may be its precise limitation, the law of diminishing returns cannot be held peculiar to land. There is no natural agent to which it does not in like manner apply. There is no limit either to the supply of land or to its productive powers in any other sense than that in which all other natural agents are limited. It is not the fact that the natural agent, land, is more limited in extent than any other natural agent. . . . The comparison has generally been made between a particular portion of land, and some other agent to the quantity of which no limit is expressed; and not, as it obviously ought to be, between a specific portion of each. If we direct our attention to some such definite portion of any other natural agent, we shall at once observe that it presents the same phenomena.¹⁴

Hearn's theory of "Ricardian rent" will be discussed below but it might be noted here that his ready appreciation of the applications of the law of diminishing returns was a natural consequence of his "Smithian" or "trans-institutional" approach to economics. The abstract law is a conditional inference and the institution of ownership is the assumed condition. It would have been more natural for Hearn to say "Buy so much land," than to say "Hold land constant." Mill would have been oppositely inclined, for he believed that the "laws of production partake of physical truths." The abstract law of diminishing returns has something of that character. But in a concrete application it is a "social truth." Efforts applied to a specific portion of the natural environment meet

¹⁴Ibid., p. 117.

increased resistance but without ownership there would be no specific portions.

Hearn's contribution to the theory of price are difficult to evaluate for his chapter on exchange reveals insights but is not free from ambiguities. Hearn uses a number of different expressions almost interchangeably-- efforts, costs, difficulty of attainment, and cost of reproduction--in an explanation which alternates between individual principles and doctrines applicable to groups. Yet Edgeworth was not unduly sympathetic in saying that the chapter on exchange in the Plutology contains "all the relations of price to utility and cost of production, except those which can hardly be expressed without mathematics."¹⁵ Moreover, if this chapter is read along with the treatment of wants and of competition, one sees that Hearn understood most of the concepts of the modern "theory of price determination," even though he did not assemble these concepts after the modern fashion.

In an article on the development of utility theory, George Stigler mentions Hearn as one of the "unsuccessful discoverers of the principle of diminishing marginal utility."¹⁶ The following was probably the passage which caught Stigler's attention:

There are some objects to the use of which strict physical limits are set. There are others of which

¹⁵Edgeworth, "Hearn" in Palgrave's Dictionary, p. 294.

¹⁶Stigler, "The Development of Utility Theory," p. 79.

the pleasure depends, in a great degree, upon their scarcity. But in hardly any case does the increase of the object bring with it a proportionate increase of enjoyment.¹⁷

Hearn saw too that it was only under conditions of competition that price was determinant. This will be discussed in the next chapter of this study. In his explanation of the reasons for price tending to the cost of production, Hearn displays an understanding of "consumer's surplus." The reader will notice in the following passage that it is the "Marshallian" rather than the "Jevonian" concept of consumer surplus being used. That is, it is measured in a money rather than a utility dimension.

Thus the purchaser is the gainer by the difference between the extreme amount which his desire for the service would induce him to give, and the amount actually paid. . . . Thus while the producer is remunerated according to the full measure of his deserts, the consumer gains the whole difference between the price that he actually pays and the price that in extremity he would be prepared to pay.¹⁸

Hearn also understood what was later called demand elasticity and saw that it modified the range of fluctuations in price which followed changes in supply.

In the case of superfluities there are always some purchasers for whom the price is at its maximum. In their estimation, the desirability of the object and the difficulty of its attainment are nearly equal. Even a slight increase of cost therefore destroys as far as they are concerned the conditions necessary for exchange. They will cease to satisfy that particular desire. The difficulty will ascend the scale, but not to its full extent. Price will rise, but not to the height that might at first have been expected. . . .

¹⁷Hearn, Plutology, p. 17.

¹⁸Ibid., pp. 333, 338.

In like manner any reduction in cost will bring under the conditions of exchange persons who were previously excluded. Their demand will consequently form a new element of difficulty; and the fall or price will to that extent be checked. The price therefore of superfluities is modified by the diminution or the increase of purchasers. The rise consequent upon the increase of cost is checked by privation. The fall consequent upon a decrease of cost is retarded by enlarged enjoyment.

But the case is otherwise with things that are indispensable. . . . Hence an increase in the cost of food will not be checked, to the same extent at least as in other cases, by privation. People prefer to sacrifice other sources of enjoyment than to reduce considerably their consumption of food. Accordingly a deficient harvest brings with it a very disproportionate rise in price. . . . Consequently a plentiful harvest will not bring with it a proportionate increase of consumption. . . . The expenditure saved is directed towards other sources of enjoyment. . . . As the check that controls the rise of price in necessities is absent, so also is the check that moderates its fall.¹⁹

Hearn's preferred expression for the "point to which price tends" were "cost of reproduction" and "difficulty of attainment." Both of these are personal, subjectivistic terms. Also, both are obviously ex ante in meaning and are to be understood as applicable at the margin. Although Hearn uses the terms "desirability" and "intensity of wants" these mean desirability measured by one's "difficulty of attainment."

The strength of the desire can only be tested by the difficulty which it will overcome. Without such a test, its force remains unknown to the person who feels it.²⁰

This is the subjective cost theory of value and should be distinguished from the objective cost theory of

¹⁹Ibid., pp. 250-251.

²⁰Ibid., p. 244.

price. Of the relation between these and other classical doctrines more will be said in the next chapter. Here it should also be observed that Hearn recognized that competitive price tended to the cost of production at the margin--and he understood this as a functional relation as well as the "cost of the marginal producer."

It may happen that an increase of production is required, but can only be obtained at a greater proportionate cost than the former amount. It may happen that while the quantity required remains unchanged the cost of part, but not of the whole, of that quantity is reduced. In both cases, and for the same reason, there will not be the two prices of the two differing costs, but one price. The purchaser pays for the difficulty of attainment. He has nothing to do with the vendor's labour.²¹

There is also a section in the chapter on exchange in which Hearn seemed to have in mind considerations much like those which led Wicksteed to reject the distinction between supply and demand. After having shown that the difficulty of attainment is the ruling principle of price, Hearn argues that difficulty faced by a purchaser may be either the resistance of the vendor or the competition of other purchasers. This is quite compatible with modern theory.

The difficulty of attainment is composed of two elements. One is the actual cost of reproducing the object itself. The other is the number of persons who are prepared to purchase the existing quantity. Where there are more than the two parties, the desirability of the object to the other purchasers presents a difficulty in the attainment of that object to each individual competitor.²²

²¹Ibid., p. 248.

²²Ibid., p. 247.

It has been said that Hearn's investigation into the nature of the firm was very Coasean. Of course the Coase theory of the firm is more significant as a correction of a model of an economic system "as being co-ordinated by the price mechanism."²³ But the distinction made by Coase between the co-ordinating functions of the "entrepreneur" and of the "price mechanism" relate to Hearn's distinction between "co-operation" and "exchange" or, more exactly, between "express co-operation" and "tacit co-operation."

The problems of co-ordination which Coase sees as the "costs of using the price mechanism" Hearn understood as problems of the "adjustment in society to the terms of co-operation."

Since then the rules by which the terms are settled in ordinary partnerships are manifestly inapplicable to these great social agencies [the price system], we must inquire in what manner this essential part of co-operation is in cases of tacit co-operation carried into effect.²⁴

Taking first the simple case of express co-operation and then proceeding to the more complex, Hearn, although his immediate concern is "distribution," covers the problem of "co-ordination." Hearn's "distributor" is Coase's "entrepreneur."

²³Ronald Coase, "The Nature of the Firm," Economica, n.s. Vol. IV (1937), reprinted in Readings in Price Theory, ed. George Stigler and Kenneth Boulding (Chicago: Richard D. Irwin, 1952), p. 332.

²⁴Hearn, Plutology, pp. 215-216,

Where the number of partners is not inconveniently great, and where the practice of express co-operation is familiar, the proceeds are divided between all the partners according to the terms of their agreement. . . . In other circumstances the property in the product, although it is divisible between the capitalist and the labourers, is usually vested in one party only who distributes their share to the others. The residue in the hands of the owner, after paying to all his partners their several shares, is called profit. This term is usually applied by economists to the remuneration of capital; but since when used in this sense it includes the wages of superintendence and the insurance against risk, it may without impropriety be used as equivalent to gain. If the distributor be the capitalist, the share of the labourer is called wages. If the distributor be the labourer, the share of the capitalist is called either interest or rent. It is called interest when the capital has been advanced in the form of money. It is called rent when the capital has been advanced in the form of some specific commodity. . . .

In that tacit partnership however which society forms [the price system], a new arrangement practically supercedes this division of shares. . . . The relation between the parties is no longer that of partners, but that of vendor and purchaser. . . . The case therefore comes within the ordinary conditions of exchange; and the price of labour and the price of capital are determined in the same manner as all other questions of price are determined.²⁵

In the Plutology, the price system "supercedes" co-operation. However, according to Coase, "the distinguishing mark of the firm is the supersession of the price mechanism." This will be discussed below, but it must also be noted that Hearn takes a contractual view of the firm and regards the master-servant relationship, which Coase emphasized, as one of its characteristics.

One great advantage of co-operation is the organization of which it admits. The direction of the work is left with the person who has the deepest

²⁵Ibid., pp. 326-328.

interest in its success, or who is considered by those most interested in forming a correct judgment, to be the most capable of conducting it. This person is thus enabled to make the most convenient distribution of the work, and to concentrate on whatever point and at whatever time may be expedient the whole force of the workers. By this means, itself a form of the division of employment, the utmost efficiency, so far as regards the direction of the labour, is secured. But for the proper fulfilment of this arrangement several circumstances must occur. There must exist in those who are under direction proper habits of subordination. They must yield prompt and entire obedience to the orders they receive; and . . . they must not suffer their own opinions of expediency to interfere with the zealous performance of apparently doubtful or inopportune tasks.²⁶

That Coase's theory of the firm was accepted as novel indicates the extent to which the economic order has been identified with the price system. Coase seems to be departing from this view for he presents his theory as a theory of organization. But his theory can hardly be said to be general; if there were no firms there would be no price system for the first one to supercede. His view of the company is substantially correct but his concept of the company in relation to its environment is open to objection. Coase seems to think that some "transactions" are "organized by the market" and others are "organized by the firm." Had he attempted to give a few illustrations of this distinction, perhaps he would have sensed that what was involved was a difference, to use Hearn's words, between express co-operation and tacit co-operation, or between contract and exchange. Hearn explains how exchange

²⁶Ibid., p. 220.

supercedes contract in a section entitled, "Growth in Society of Tacit Co-operation," in Chapter XVII of the *Plutology*, "Of the Industrial Organization of Society."²⁷

The object and the terms of co-operation depend in the first instance at least upon men's mutual agreements. Such an agreement, whatever its nature or its consideration may be, implies communication between the parties and proposals made by the one and accepted by the other. But the agreement which is thus expressly made between individuals, exchange in effect extends by a tacit understanding through every part of society and to great classes of men. This result arises spontaneously from the circumstances of society, and from the opportunities for exchange which a state of society implies. The process by which the result is attained may be readily traced. A man acquires, whether from natural talents or from some accidental circumstance, the power of rendering some service with unusual skill. At first he follows this occupation in conjunction with some other pursuit as his circumstances require. By degrees his powers become known, and many persons desire his assistance. His practice soon brings increased skill, and his new skill tends further to increase his practice. At length he finds the number of his clients so much increased that it is profitable to devote himself exclusively to the supply of their requirements. The public on their side feel that in this matter they can be better and more economically served by employing the practitioner than by attempting to render the service for themselves; and are consequently willing to pay according to the nature of the service. The successful practitioner gradually becomes rich. Other persons are encouraged by his example, and imitate it. Successors or competitors soon appear, and thus a regular business is established. Guided by experience, men speculate upon the probable wants of their neighbors, and prepare themselves to satisfy those wants. They know that those neighbors will desire to have certain services rendered to them; and that in consideration of the trouble thus saved they will cheerfully pay a reasonable reward. The farther this arrangement is carried, the stronger the inducements to its extension become. Each occupation becomes distinct from, and at the same time more or less dependent upon, every other occupation. The

²⁷ Ibid., p. 291.

skill resulting from constant practice continually places the men of special beyond the men of universal art; and each art thus specialized forms a market for the labour of those who pursue other occupation. Each class exchanges with every other; and thus the whole society spontaneously and without design on the part of its members assumes a co-operative character.²⁸

From this it is clear that the "factor market" to which Coase directed his attention develops as new trades develop. Coase complains that "Economic theory has suffered in the past from a failure to state clearly its assumptions."²⁹ This seems to be correct at least in respect to the literature with which he was familiar, but he appears to grant himself a privilege in respect to the precept which he lays down. He could without altering his conclusions answer the objection that he has assumed the "price system." But without his concept of "exchange transactions" his theory would surely fall.

Coase makes the standard neoclassical assumption that there is a certain supply of primary factor services which by a series of "exchange transactions" are transformed into intermediate and then into final products. Coase, as Knight before him, seemed to think that the "firms" had little to do with the substance of this massive matrix of specific transformations (activities). According to Coase, a company will emerge to eliminate certain trouble spots

²⁸ Ibid., p. 294.

²⁹ Coase, "The Nature of the Firm," p. 331.

which he would call transactions costs. But it is clear that a new company will bring an alteration in the content as well as in the form of activities. Coase's paradigm seems to be the merge of two existing companies. What was before a sale is now a bookkeeping entry. He would seem to think it legitimate to conceive of all new companies as simple mergers. But when a new product is involved such a simplistic view cannot be allowed. In these cases, which are the important ones to understand, new activities are involved. Yet Coase leaves his readers believing that these activities would be performed anyway, that the companies only reduce the trouble of transferring their effects among persons.

Coase is critical of Frank Knight but Knight was actually much closer to the truth. Knight was more keenly aware that the "matrix of transformations" was merely an abstraction for the purposes of analysis. The abstract theory of the order in these "exchange transactions" that reigned in Knight's time assumed too much foreknowledge and it was clear to Knight, as it should have been clear to any thinking man, that that assumption, at the entrepreneurial level of decision-making, is woefully incorrect. Thus partly for theoretical consistency and partly in deference to reality Knight's theory of the firm became tied to uncertainty. But in Hearn's approach the assumption of certainty need not be made. If one of the extremes

must be assumed in theory, it would be better to assume absolute uncertainty. In Hearn's words, "men speculate upon the probable wants of their neighbors." It is true that the contributors to an enterprise that are under contract have no uncertainty about their reward, or at least they are as certain about this as the nature of society permits. With this fact in mind one is led to think, as Knight seemed to think, that the uncertainty of the world is transferred onto the shoulders of the owner of the enterprise. As the owner relates to the other contributors this view is correct but in respect to his relation to the world it is misleading. In this view the firm appears to emerge because of uncertainty but in fact it emerges because the uncertainty has been reduced. The company exists in spite of uncertainty, not because of it.

The distinction which all of these writers have concerned themselves with is Hearn's distinction between cooperation and exchange. The entrepreneur is not a partner, he is a vendor to those who support him. What needs to be explained in this case is production for an undetermined customer. This is not the general case, however. The uncertainty is often avoided with a contract of sale, a technique typical of the construction industry, for example. But in that industry there is also, on occasion, "speculative building." Under what circumstances

is this observed? Such a builder would say that "Demand is steady" or that "The market is broad."

He is confident that he will have customers. Because he is able to be confident he does not bother to sell his houses in advance. Producing for the "market" is therefore a device by which selling costs are reduced or postponed. The division of labor is limited to the extent of the market. As society develops, new markets become sufficiently extended so that the uncertainty is reduced to a point at which it becomes profitable to exploit the advantages of reduced selling costs and exchange supercedes cooperation.

CHAPTER V

HEARN IN RELATION TO JEVONS AND MARSHALL

Through Jevons and through Marshall, the Plutology may have influenced the flow of economic thought, at least for a time. Such a claim must be made with the caution that neither Jevons nor Marshall gave Hearn credit for inspiring any specific doctrine. But both men studied the Plutology carefully and in both cases there was apparently unqualified admiration for Hearn's work. That more credit was not given Hearn can be easily explained. The implications for theory of Hearn's approach was not fully appreciated by either of these men. The Plutology is a comprehensive treatise (475 pages) packed with truths the reader unconsciously absorbs. Of course the historian of ideas would be overworked if he sought to account for all influences of this type. But in the case of Jevons and in the case of Marshall there is evidence that each attempted to reconcile his views with those of Hearn. This desire had interesting results, for in neither case was full reconciliation possible and neither man was quite sure of the relation of his theory and that of Hearn. But even a superficial investigation of this question suggests this much: In the case of Jevons the Plutology gave

encouragement to heretical sentiments and in the case of Marshall that same work gave hope for rehabilitation and synthesis. That one book served such opposing purposes is itself a curiosity.

Jevons was of course first and foremost a mathematical Benthamite and in this respect was a pole away from Hearn. Jevons was not a genuine subjectivist in the sense that that term has been explained; his economic man was not a thinking man who estimates and makes decisions but rather a pleasure-seeker and pain-avoider who keeps doing this and quits doing that when the incremental pleasure of this balances the incremental pain of that. But Jevons had worked out the calculus of pleasure and pain and his theory of exchange prior to the publication of the Plutology. In the earlier chapters of his Theory of Political Economy, there are references to Hearn but these are only made to support Jevons' own views.¹ It does not seem that Jevons was justified in doing this. The emphatic proclamations of utility as the sole cause of value and of value as the ratio of exchange and of the central positions of these doctrines were not inspired by Hearn. Jevons had developed all of these views before he wrote in 1865 that the Plutology was "both in soundness and originality the most advanced treatise on political economy which has appeared."²

¹Jevons, Theory of Political Economy, p. 41.

²Jevons, The Coal Question, p. 168.

But six years later when Jevons' Theory came out there were signs that it was written with the author's favorite book close by. The last four chapters of the Theory, the chapters on labor, rent, capital, and concluding remarks amount to a mathematical (and thus mechanistic) formulation of the "labor theory of value." More exactly, Jevons works out the "single-factor hypothesis." In the opening sentences of the chapter on exchange (Chapter IV), Jevons seems to be ready to qualify his earlier views. These sentences both echo passages from the Plutology and illustrate a fundamental difference between the two writers.

Exchange is so important a process in the maximising of utility and the saving of labour, that some economists have regarded their science as treating of this operation alone. Utility arises from commodities being brought in suitable quantities and at the proper times into the possession of persons needing them; and it is by exchange, more than any other means, that this is effected.³

Hearn's view of the position in economics of exchange is given below. The second sentence quoted here from Jevons reflects what Hearn would consider an exaggerated importance of exchange but it may have been written not long after Jevons read in the Plutology that:

Desire consists in a certain state either of body or of mind. Its satisfaction arises from the presentation of an appropriate object to the part so disposed. This presentation, whether it be made

³Jevons, Theory of Political Economy, p. 75.

by the person himself who feels the desire, or by some other person⁴ in his behalf, must be made by some human agent.

Hearn opens his chapter on exchange with the lines:

I now approach the consideration of that great agent which with an excusable exaggeration some writers have regarded as the sole subject of economic science. Although a less exalted rank has been assigned in these pages to the theory of exchange, this lower view of its position does not proceed from any insensibility of its influence.⁵

The first sentence here compares closely with the one made by Jevons and quoted above. The point being made is that Hearn seemed to have caused Jevons to feel that it was necessary to defend his view that "it is impossible to have a correct idea of the science of Economics without a perfect comprehension of the Theory of Exchange"⁶

In like manner, Jevons opens his chapter on capital with a reference to a distinction that Hearn had made. This distinction is fundamental to the single-factor hypothesis.

In considering the nature and principles of Capital, we enter a distinct branch of our subject. . . . Both by the use of capital and by exchange we are enabled vastly to increase the sum of utility which we enjoy; but it is conceivable that we might have the advantages of capital without those of exchange. An isolated man like Alexander Selkirk [the man whose adventures inspired Defoe's Robinson Crusoe] might feel the benefit of a stock of provisions, tools, and other means of facilitating industry,

⁴Hearn, Plutology, p. 25.

⁵Ibid., p. 235.

⁶Jevons, Theory of Political Economy, pp. 75-76.

although cut off from traffic with other men. Economics, then, is not solely the science of Exchange or Value: it is also the science of Capitalisation.⁷

Compare the first lines of Hearn's chapter on co-operation.

The appearance of co-operation marks a new feature in our inquiry. An isolated labourer may procure for himself the assistance, limited indeed but still appreciable, of capital and of invention.⁸

It is difficult to believe that Jevons' sensitivity to these questions grew independently of Hearn's influence. By the time he wrote his Theory, Jevons apparently sensed that his theory of "production" had to be reconciled with the earlier chapters of his book and he included the remarks quoted above after looking over his own work and that of Hearn. In his concluding remarks Jevons, in referring to a "coincidence of opinions" between himself and Hearn, was no doubt expressing what he believed to be the truth. Certain rudiments of his theories of labor, rent, and capital are found in his earlier paper. But in the Theory the views on these topics are given an expression that is much too classical to have been a mere development of Jevons' own thought. His originality was in the mathematical formulation but much of what he formulated was taken from the Plutology. The "pleasure-pain" calculus view of production was to Jevons a sequence of "pains"

⁷Ibid., p. 223.

⁸Hearn, Plutology, p. 200.

leading to a "pleasure." But Jevons frequently abandons this view of production as a process and adopts the "social organism" approach. Because his chief concern was the mathematics he was not aware of certain contradictions in his theory of production to his earlier views.

Toward the end of the chapter on exchange Jevons writes:

I hold labour to be essentially variable, so that its value must be determined by the value of the produce, not the value of the produce by that of the labour. I hold it to be impossible to compare a priori the productive powers of a navvy, a carpenter, an iron-puddler, a schoolmaster, and a barrister. Accordingly, it will be found that not one of my equations represents a comparison between one man's labour and another's. The equation, if there is one at all, is between the same person in two or more different occupations.⁹

On the next page, however, Jevons opens his chapter on labor with a quotation from Smith on the "original purchase-money." He admits that the doctrine might be criticized but adds that it "is substantially true, and luminously expresses the fact that labour is the beginning of the processes treated by economists, as consumption is the end and purpose."¹⁰ Here Jevons' analysis is individualistic, as it is in the sections on "quantitative notions" and on dimensional analysis which immediately follow. The section "Balance Between Need and Labour" begins as an

⁹Jevons, Theory of Political Economy, p. 166.

¹⁰Ibid., p. 167.

individualist theory of the supply curve of labor but ends with a theme that could have come from Hearn and is essentially social. In an advanced society new wants stimulate "industry." Increasingly, Jevons thinks of "labor" as a homogeneous "annual fund."¹¹ In the next section, "Distribution of Labour," Jevons completely forgets the "impossibility" of a "comparison between one man's labour and another's."

We now come to consider the conditions which regulate the comparative amounts of different commodities produced in a country. Theoretically speaking, we might regard each person as capable of producing various commodities, and dividing his labour according to certain rules between the different employments; it would not be impossible, too, to mention cases where such division does take place. But the result of commerce and the division of labour is usually to make a man find his advantage in performing one trade only; and I give the formulae as they would apply to an individual, only because they are identical in general character with those which apply to a whole nation.¹²

It is possible that Jevons had developed the equations before he read the Plutology from which he learned of their "identical character" with those applied to a nation. The passage here is certainly and emphatically the "social organism" point of view. The concern here is allocation and "disutility" drops out of the picture. Jevons solves the equations and in the next section "Relations of the Theories of Labour and Exchange," Jevons writes:

¹¹Ibid., pp. 181-183.

¹²Ibid., p. 183.

It may tend to give the reader confidence in the preceding theories when he finds that they lead directly to the well-known law, as stated in the ordinary language of economists, that value is proportional to the cost of production.¹³

Jevons repeats this and at least at one point denies it in this chapter. He writes that the "cost of production is only one circumstance which governs supply, and thus indirectly influences values."¹⁴ But in the section on "Over-production" the "social organism" view again appears. That is to say, there is no reference to Say's Law; a "partial glut" is treated simply as a problem of maldistribution of labor.¹⁵

Jevons commences his Chapter VI (on rent) as if he intends to follow with Ricardo's differential theory but quickly states that the theory is but a special case of his "Law of Indifference." Jevons does not treat rent as a problem in distribution; it is an allocation of labor problem. This is, except for its institutional aspects, essentially the same view which Hearn takes and which is explained in the next chapter of this study. Jevons writes:

I shall suppose that a certain labourer, or what comes to exactly the same thing, a body of labourers, expend labour on several different pieces of ground. On what principle will they distribute their labour between the several pieces? . . . We may say, then, that whenever a labourer or body of labourers distribute their labour over pieces of land with perfect economy, the final ratios of produce to labour will be equal.¹⁶

¹³Ibid., p. 186.

¹⁴Ibid., p. 198.

¹⁵Ibid., pp. 202-203.

¹⁶Ibid., p. 216.

In his chapter on capital a short quotation by James Mill is followed by a long one from Hearn. Both of these, however, seem to have been chosen for Jevons' own purposes. They both deal with the "maintenance of labor" during the productive process. This is the essence of Jevons concept of capital both in the Theory and in his earlier paper. But two changes from his earlier views may be significant. In the earlier paper Jevons measures capital "by the amount of utility of which enjoyment is deferred . . ."; in the Theory it is measured by labor cost.¹⁷ Also, Jevons drops the notion of the employment of capital and speaks of the investment of capital and of what he calls capitalisation.¹⁸ This he understands to be expending labor in advance. Just as rent is the consequence of a superior spatial division of labor, interest springs from a superior temporal division of labor. Thus Jevons had certainly gone all of the way with the single-factor doctrine.

Hearn may have discouraged Jevons from attempting to develop a mathematical theory of income distribution. Jevons seems to promise such a theory in his earlier paper but his "Concluding Remarks," Chapter VIII of the Theory is a farrago of views on the general topic.¹⁹ It

¹⁷Ibid. Jevons earlier paper is reprinted as Appendix III to Theory, p. 312.

¹⁸Ibid., pp. 229, 312.

¹⁹Ibid., pp. 266-277.

is obvious that Jevons had intended to write a chapter on the mathematical determination of wages (or distribution generally) but abandoned the project, possibly after reading Hearn's treatment "Of the Adjustment in Society to the Terms of Co-operation." Jevons, after quoting Hearn at length, refers to the "enlightened view" of the "industrial structure of society" in the Plutology. Jevons had come to regard the problem of "wages and profits" as a problem of social organization, and he follows Hearn closely. There are four sections in this chapter: "The Doctrine of Population," "Relation of Wages and Profit," "Professor Hearn's Views," and "The Noxious Influence of Authority." The last section does not seem to have been inspired by Hearn, but the present author recommends it anyway.

Hearn's views on the "doctrine of population" have been given. Jevons says that it has no place in Economics.

The problem of Economics may, as it seems to me, be stated thus:--Given, a certain population, with various needs and powers of production, in possession of certain lands and other sources of material required, the mode of employing their labour which will maximise the utility of the produce.²⁰

But it does not seem that Jevons had abandoned forever the hope for "multi-factor" analysis, for he follows with:

The same results, however, would generally be obtained by supposing the other conditions to

²⁰ Ibid., p. 267.

vary. Given, a certain population, we may imagine the land and capital at their disposal to be greater or less, and may then trace out the results which will, in many respects, be applicable respectively to a less or greater population with the original land and capital.²¹

But this is the closest that Jevons comes to implying that land or capital is productive. In the next section, on wages and profits, Jevons statement of the problem of wages seems at first curious:

Although labour is the starting-point in production, and the interests of the labourer the very subject of the science, yet economists do not progress far before they suddenly turn round and treat labour as a commodity which is bought up by capitalists. Labour becomes itself the object of the laws of supply and demand, instead of those laws acting in the distribution of the products of labour.²²

Labor here means what it meant in Jevons' chapter on labor, which had nothing to do with wages. Labor is the "annual fund" or, in the spirit of the pleasure-pain calculus, the gross national toil and trouble. "Population" has nothing to do with the question on wages. This is both the ground for excluding the doctrine of population from the science and for rejecting the doctrine of wage-fund, or for that matter, any aggregative analysis. Hearn never mentioned the wage-fund. Jevons regards it as "illusory as a real solution of the problem" and he later adds that it "acts in a wholly temporary manner." Jevons eliminates rent from the problem of distribution; Hearn had not considered it in the chapter quoted which Jevons seems to

²¹Ibid.

²²Ibid., pp. 267-268.

follow. Thus Jevons arrives at the equation:

Produce = profit + wages. Jevons resolves profit into "wages of superintendence, insurance against risk, and interest" ²³ These are Hearn's exact words. ²⁴

Jevons' discussion is largely qualitative, a striking departure from the beginning chapters of his work. The existence of a uniform wage is denied, but there is no mention of his earlier reason for rejecting this, that it was impossible to compare the productivity of different workers. In fact, the variations of wages is attributed to different productivities. The entire discussion has the "institutional" and "subjectivist" flavor of the Plutology. The following extracts, not intended here to convey any single point, will serve the present purpose:

The fact that workmen are not their own capitalists introduces complexity into the problem. The capitalists, or entrepreneurs, enter as a distinct interest. It is they who project and manage a branch of production, and form estimates as to the expected produce This soon induces competition on the part of other capitalists, who, in trying to obtain good workmen, will raise the rate of wages . . . and the competition to obtain proper workmen will strongly tend to secure to the latter all their legitimate share in the ultimate produce. . . . Capitalists will learn, by experience, exactly what the profits . . . may be; that amount of capital will be thrown into the work which finds the average amount of profits, and neither more nor less. ²⁵

²³Ibid., p. 270.

²⁴Hearn, Plutology, pp. 326-328; quoted above, p. 108.

²⁵Jevons, Theory of Political Economy, pp. 270-272.

None of these views are consistent with the methodological orientation which Jevons explains in the introductory chapter of his Theory. They are not exactly like Hearn's views but they are very close to Hearn--and very far from anything else in the literature of the period.

The influence of the Plutology on Marshall presents an interesting contrast. As Jevons can be said to have readily accepted much of the framework of the Plutology, Marshall can be said to have gradually absorbed much of its spirit. That is to say, at an early age Marshall settled his mind on what he later called the "backbone" of economics and that prevented him from appreciating Hearn's conceptual scheme. But that did not prevent him from absorbing the subjectivist and the institutionalist spirit of the Plutology. The man who in the sixties was rejecting anything in Mill that could not be translated into mathematics by 1890 was defining economics as "the study of people in the ordinary business of making a living."²⁶ Of course Marshall read everything so it should not be surprising that he read the Plutology. But there is evidence that he read it carefully and thoughtfully.

Marshall read the Plutology before the publication of Jevons' Theory. Mary Paley Marshall reports that in

²⁶Marshall, Principles, Vol. I, p. 1.

Marshall's course at Cambridge, which she took in 1868 or 1869, "Mill was the mainstay and students were encouraged to read Hearn."²⁷ This was three decades before the publication of the Principles, in which there were references to Hearn. These have been given; it should also be noted here that Mrs. Marshall was asked about Hearn in 1933 and replied that her husband has "used Hearn freely."²⁸ This is especially significant because the early editions of the Principles have changed which indicate that Marshall was wrestling with Hearn's conceptual scheme.

The story of the adolescence of Marshall's life-long study of economics is well known. As in the case of Jevons, Marshall received his first instruction from Mill's Principles. In Appendix B of his own Principles, Marshall gives his mature view of the science as a "vertebrate organism" and he seems to warn against going too far in the direction of the "biological approach" which was of course the approach of Hearn.

.The growing prominence of what has been called the biological view of the science has tended to throw the notions of economic law and measurement into the background; as though such notions were too hard and rigid to be applied to the living and ever-changing economic organism. But biology itself teaches us that the vertebrate organisms are the most highly developed. The modern economic organism

²⁷Mary Paley Marshall, What I Remember (Cambridge: Cambridge University Press, 1947), p. 20.

²⁸As reported by Douglas Copland. Copland, W. E. Hearn, p. 19.

is vertebrate; and the science which deals with it should not be invertebrate. It should have that delicacy and sensitiveness of touch which are required for enabling it to adapt itself closely to the real phenomena of the world; but none the less must it have a firm backbone of careful reasoning and analysis.²⁹

By the backbone of the science, Marshall meant what is now simply called "theory." Earlier in Appendix B Marshall referred to the theories of foreign trade and of money as parts of the science which most nearly "fall within the range of pure deductive reasoning."³⁰ Marshall gives credit to "Ricardo and his followers" for developing this branch of the science; these are probably among the doctrines of Mill that Marshall as a young man translated into mathematics. And in the three decades prior to the first edition of the Principles, Marshall worked to both stiffen this "backbone" and add to his knowledge of the "more delicate" parts of the organism.

As Marshall himself has written, the Principles was developed as an extension "gradually backwards and forwards" of the "kernel," Book V, on demand, supply, and value. The "backward" extensions, particularly the important Books III and IV, showed Hearn's influence.³¹

Marshall, unlike Hearn or later writers such as Knight, was not concerned with high-level clarification of conceptual schemes. He was satisfied that the organism

²⁹Marshall, Principles, p. 279.

³⁰Ibid., p. 761.

³¹Ibid., Vol. II, p. 7.

could be supported by the backbone which might bend from an uneven distribution of weight but which, nevertheless, held up. Demand and supply were broad categories and in Books III and IV there was plenty of room for the many pieces, factual and conceptual, that Marshall seemed to be always carrying. In the first edition, there are two references to Hearn. In a footnote at the beginning of Book III, Marshall refers to Hermann and to Hearn as having pointed to the proper treatment of "wants." Hearn is said to offer good "instruction to the young" but the Plutology does not receive especially high praise.³² Nevertheless, Hearn's language, particularly "efforts" and "wants" and "satisfactions," is reverberated throughout this book. In Book IV there is a reference to Hearn in connection with the organic evolution of society. But the evidence suggests that Marshall was not consciously drawing from Hearn but that he later recognized that he may have unconsciously done so. At all events, Marshall took another close look at the Plutology in the 1890s.

There are a number of seemingly trivial changes in the second through the fourth editions of the Principles which support this contention.³⁴ The title of Book III was changed from "Demand" to "On Wants and Their Satisfactions." There

³²Ibid., Vol. II, p. 235.

³³Ibid., Vol. II, p. 323.

³⁴Ibid., Vol. II, passim.

are several places where the word "satisfaction" is substituted for "pleasure." In the footnote to Hearn in reference to wants, Marshall adds that the Plutology is "at once simple and profound." Marshall wrestles with the question of the "primacy of consumption in economics" and apparently had Jevens and Hearn in mind. After discussing the causes which had brought the study of consumption into economics Marshall adds a qualifying paragraph in which he suggests that wants should be considered "in relation to human efforts and activities." He inserts a new chapter, "Wants in Relation to Activities." In the second edition, the following sentence is inserted into the introduction of Book III:

But first of all come "Demand or Consumption," i.e., the theory of Wants; and "Production" or "Supply," i.e. the theory of the Efforts and Sacrifices devoted to the satisfaction of wants.³⁵

But this was replaced in the fourth edition by:

But first comes the present Book III, a study of Wants and their Satisfaction, i.e. of demand and consumption; and then Book IV, a study of the agents of production, that is, the agents by whose means wants are satisfied, including man himself, the chief agent and the sole aim of production.³⁶

At this time Marshall changes the title of Book IV from "Supply or Production" to "The Agents of Production: Land, Labour, Capital, and Organization." Thus Marshall entertains but rejects the identity of "Efforts" and

³⁵Ibid., Vol. II, p. 234.

³⁶Ibid., Vol. I, p. 83.

"Production." In the text of all editions there are only three agents of production, the traditional "Land, Labor, and Capital." It was after the first edition that he adds "organization" to these three, and he only does so in title to Book IV, and he then deletes the reference to Hearn at the beginning of the first chapter on "organization." This was not a reference to Hearn's "co-operation as an aid to labor" but rather to Hearn's views on the organic evolution of society. Marshall seems to wish to separate these two notions; the chapters on organization--which drew from many sources--blended what Hearn would have called "tacit" and "express" co-operation. Marshall's identification of organization as a distinct fourth agent indicates that Marshall was aware of the difference and he wanted to emphasize "express co-operation." At the beginning of Book IV there is a paragraph that begins:

Capital consists in a great part of knowledge and organization; and of this some part is private property and other part is not.³⁷

After this sentence Marshall later inserts:

Knowledge is our most powerful engine of production; it enables us to subdue Nature and force here to satisfy our wants. Organization aids knowledge; it has many forms, e.g. that of a single business, that of various businesses in the same trade, that of various trades relatively to one another, and that of the State providing security for all and help for many.³⁸

³⁷Ibid., Vol. I, p. 138.

³⁸Ibid., Vol. I, p. 138; Vol. II, p. 268.

The use of "knowledge" to "subdue nature" sounds too much like Hearn's "invention" to have been a coincidence.

It is thus possible to explain the discursive character of Marshall's Book IV as the product of Marshall's desire to "say everything" that related to production but having learned some things which could not be neatly arranged under the old headings of "Land, Labour, and Capital." The reader will recall that Hearn had recognized two "means by which wants are satisfied" and that these were natural agents and labor. The passage in Marshall just quoted is followed by this:

In a sense there are only two agents of production, nature and man. Capital and organization are the result of the work of man aided by nature, and directed by his power of forecasting the future and his willingness to make provision for it. If the character and powers of nature and of man be given, the growth of wealth and knowledge and organization follow from them as effect from cause. But on the other hand man is himself largely formed by his surroundings, in which nature plays a great part; and thus from every point of view man is the centre of the problem of production as well as that of consumption; and also of that further problem of the relations between the two, which goes by the twofold name of Distribution and Exchange.³⁹

Thus Marshall has related here all of Hearn's "aids to labor." But if "Capital, Invention, Co-operation, and Exchange" was the suggestion for Marshall's "Capital, Knowledge, and Organization" the position of "exchange" would have been questioned. It is therefore improbable that Marshall, in his earlier years of study, read the

³⁹Ibid., Vol. I, p. 139.

Plutology with these conceptual questions in mind. He probably read it as he read everything else, with the purpose of learning as much as he could. There is no evidence that Marshall consciously imitated Hearn but in many respects the two men thought along the same lines. The initial effect of the Plutology may have been merely to alert Marshall to certain themes which he pursued on his own. When he sat down to write his Principles, Marshall was apparently satisfied with his understanding of "organization" and its relation to the backbone of economics. But that Marshall should later take another look at the Plutology and review his own ideas is significant. This should be of interest to men who sometimes call themselves Marshallians but who habitually assume that such things as knowledge and organization are constant.

CHAPTER VI

A RESTATEMENT OF "THE LABOR THEORY OF VALUE"

This chapter examines the reasons for the importance accorded labor in the theory of wealth as pursued by Smith and Hearn. Although "the labor theory of value" today evokes sneers and allusions to the burial of error it will be shown that that doctrine was not so disabling as is generally believed. The reader has already had some exposure to the views presented here. The labor theory provided an explanatory link between individual behavior and the economic order in society. It provided a criterion for intelligible judgments of the efficiency of the social order. It brought to a century of scholars an improved understanding of the progress of society. It has been shown that Marshall, and even Jevons, were less free of its influence than is commonly believed. But there are still some questions left unanswered. It is therefore the purpose of this chapter to restate the "labor theory" and give special attention to those doctrines which now reign in its stead.

The present hostility toward the labor theory is to a large extent a consequence of supposing that the principal

task of value theory is an explanation of relative prices. There are other areas of controversy, but a traditional defense of marginal utility theory is that as an explanation of prices it includes more cases than the labor theory. If in an introductory or intermediate text there is any doctrinal history whatsoever, the student learns how the mystery of the diamond-water paradox was unlocked by marginal utility. But it may be argued that the question thus put is incomplete and that marginal utility is no answer.

By the first of these objections it is meant that static price theory is inane. Units of the commodities the price of which are compared can be chosen so as to make all prices equal. An interesting study would be the investigation of the causes of the size and composition of the units but this has not been the thrust of value theory. If relative prices were the true subject of curiosity the path of research effort would be marked by such topics. But price theory gains its prestige by leaving the static problem and pursuing an understanding of the process of price formation. The more useful part of value theory is the study of price changes in which of course the dimensional problem mentioned above is absent. But price changes are to be explained in terms of human conduct and thus one is forced to evaluate the different theories in terms of the implied behavioral postulates. But an examination of

these must be postponed in order that a reply to the second part of the question may be given.

It may be laid down as an incontrovertible truth that objective prices are to be explained by objective phenomena and a subjective theory is less of an explanation than an expression of agnostic sentiments. If the utility functions can be known by some method which does not presuppose prices then the theory would have explanatory powers, but there seems to be no such claim. It is certainly not legitimate to accept both the revealed preference theory of utility and the utility theory of prices. Utility theory is general but empty. As behavioral functions, utility functions can gain content of a sort if their properties are specified. But it must be emphasized that whatever the logical or factual foundations of utility function properties such knowledge does not bring meaning to the concept of utility as it appears in typical applications such as the explanation of prices or the derivation of efficiency norms.

The realism of the behavioral postulates associated with the two theories must now be compared. For purposes of orientation, it should be pointed out that a number of contemporary economists who probably think of themselves as more on the "utility side" of this controversy than on the "labor side," when analyzing problems more complex than "pure exchange," have found it convenient to formulate these as cost minimization rather than benefit maximization

problems. Ludwig von Mises, a writer never accused of overestimating the merits of the labor theory, has but one diagram in his Socialism and that is a variation of Jevons' labor disutility curve!¹ The same writer in his Human Action refers to "real cost" as "confused and contradictory" yet understands "utility" to mean the "removal of felt uneasiness" or the "removal of dissatisfaction."² George Stigler, in order to introduce "rationality" and "utility maximization" to the readers of his Theory of Price, presents an example of a shopper minimizing searching costs.³ Buchanan and Tullock in the Calculus of Consent found it expedient to describe the criterion by which voting rules were to be selected as cost minimization.⁴ W. H. Hutt, in his Keynesianism in Retrospect and Prospect defines competition as "access to goods at least cost" and insists that that is what economists have always ultimately meant by the word.⁵ Marshall's consumer surplus as cost spared has already

¹Ludwig von Mises, Socialism: An Economic and Sociological Analysis, trans. J. Kahane (New Haven: Yale University Press, 1951), p. 166.

²Ludwig von Mises, Human Action: A Treatise on Economics (New Haven: Yale University Press, 1949), passim.

³George Stigler, The Theory of Price, 3d ed. (London: Collier Macmillan Ltd., 1966), p. 2.

⁴James M. Buchanan and Gordon Tullock, The Calculus of Consent: Logical Foundations of Constitutional Democracy (Ann Arbor: The University of Michigan Press, 1965), Chap. 5.

⁵W. H. Hutt, Keynesianism in Retrospect and Prospect (Chicago: Henry Regnery Co., 1963), pp. 57-58.

been mentioned.⁶ The practice of which the above examples are illustrations is much less a convention than a yielding to the nature of the facts.

The fundamental reason for the preference of the least cost formulation is found in the nature of the human organism. Only a Benthamite or a mathematical economist would describe individual behavior as maximizing utility or "satisfactions." Perhaps the most cogent proof of the inconvenience of thinking of satisfaction in positive terms is the case of pathological wants. If a diabetic were provided his insulin without cost, would anyone think him "better off" than a nondiabetic because of his extra "satisfaction." Now if everyone were diabetic the condition would not be considered pathological, insulin would be as one's daily bread, but exactly as in the case of the few, in the case of the many this "extra satisfaction" should not make for a higher "real income" if that is to be understood as better than a lower "real income." The organism eliminates whatever wants arise as an incident of living; some wants are satisfied and some are repressed. The organism by no means maximizes. It should not be necessary to point out that this negative approach to the description of the facts of life need not interfere with a smiling attitude toward vital activity.

⁶See above, p. 104.

The recurrence of wants is the essence of life. The opening sentences of Chapter One of the Plutology might have been written by the physiologist Walter Cannon:

Life in every form with which we are acquainted, is subject to waste and repair. The living structure in no case continues unchanged, but is maintained by a series of reparative acts. . . . If any of these essential conditions be unfulfilled, the human animal like any other animal must die. . . .

But while the superior organism thus possess all the desires that belong to the inferior, it has also by virtue of that superiority many more.⁷

There are some wants which can be satisfied effortlessly. There are some for which the anticipated intensity is sufficiently great to occasion the individual's willing effort to toil and trouble. But here too the effort is something to be reduced and thus both on the "effort" and on the "satisfaction" sides of life the aim is always to eliminate something.

To a learned noneconomist economic theory must have the appearance of intellectual aestheticism and particularly amusing must be the penchant for symmetry. A motion picture of an economy, one would think after studying neoclassical models, shown upside down or run in reverse would in all cases depict phenomena governed by the same laws. The belief that static analysis is a requisite of understanding is in part responsible for this, but of more immediate concern is utility theory as a unidimensional analysis of

⁷Hearn, Plutology, pp. 12-13.

human conduct. According to Jevons, to give an example, a laborer will cease working at some point "such that the pleasure gained is exactly equal to the labour endured."⁸

Utility theory has not been sufficiently divorced from this kind of thinking. The "disutility" of labor and the "utility" of the product are not in the same dimension and, more important in respect to the claimed merits of subjectivism, these events do not occur simultaneously as Jevons implied. The relation between the "pleasure" and the "pain" is that the former is anticipated at the time the decision is made to work. For this reason the labor theory is naturally more forward-looking than the utility theory. But not only are labor and "pleasure" incomparable, in different dimensions, but the same is true of different pleasures. This is the crux of the value problem. Adam Smith's solution was to use the amount of labor one would be willing to suffer as an index of his evaluation of the product. A related remark made in the Plutology was quoted above but can be repeated here.

The strength of the desire can only be tested by the difficulty which it will overcome. Without such a test, its force remains unknown to the person who feels it.⁹

Now this might look like a mere choice of labor as a numeraire, but it is more. It has been said, by Schumpeter for example, that Adam Smith held different

⁸Jevons, Theory of Political Economy, p. 173.

⁹Hearn, Plutology, p. 244.

and contradictory theories of value. Schumpeter counted three and there are criteria by which the number can be enlarged but it can be argued that there is but one theory of value in the Wealth of Nations (or anywhere) and that the other "theories" are corollaries of the one. By the labor theory of value is meant the proposition that an individual estimates (or "measures") the worth to himself in terms of his own labor, or at least behaves as if he does, and seeks the cheapest techniques of provision for his wants.

The real price of every thing, what every thing really costs to the man who wants to acquire it, is the toil and trouble of acquiring it. What every thing is really worth to the man who has acquired it, and who wants to dispose of it or exchange it for something else, is the toil and trouble which it can save to himself, and which it can impose upon other people.¹⁰

This is of course an extremely subjectivistic passage. It implies, however, definite patterns of observable behavior. The individual will adopt those techniques of provision for his wants which he foresees as requiring the least amount of his own labor. Smith saw the individual's principal decision as choosing between direct and indirect labor and the latter generally being the best choice for three famous reasons. The disposition to truck as the principle which gives rise to the division of labor can be understood as the principle of individual behavior described. Attention may be called to the point in the passage above that

¹⁰Adam Smith, Wealth of Nations, p. 30.

what a thing is worth to a supplier is the labor "which it can save to himself."

Now the behavioral postulate as restated is so eminently reasonable that verification is hardly called for. But there is important indirect evidence. If the productivity of different laborers are equal it follows that the objective (market) prices will tend toward labor costs.

It is adjusted, however, not by any accurate measure, but by the higgling and bargaining of the market, according to that sort of rough equality which, though not exact, is sufficient for carrying on the business of common life.¹¹

By the "carrying on the business of common life" Smith did not mean the settling of individual contract terms as Cannan implies in a footnote. Smith was referring to the macro-order achieved as a result of the more or less sameness among laborers and in spite of the glaring variety of consumer preferences. If not equal, at least the productivity of different laborers are comparable and differences can be explained. Thus there is under competitive conditions additional evidence to support the labor theory, evidence of a sort which cannot be found for the utility theory.

It was in this way that Hearn explained the process by which price tended to the cost of reproduction. He then adds:

¹¹Ibid., p. 31.

The quantity of the object desired either is or is not susceptible of increase. In the latter case, the price will only be checked by the desirability of the object to the purchaser. This is the case of monopoly. Obvious instances are paintings by old masters, rare coins, first editions, the vocal talents of a prima donna, all which command what is usually called a fancy price, that is a price the limit of which is merely subjective. The opposite case is the ordinary one where the quantity of the object may be indefinitely increased at the same or even a less amount of labour. In this case the limit of price will be objective.¹²

Emphasis has been added to two words familiar to the students of the value controversy. In the case of "monopoly" the "fancy price" which is merely "subjective" is the exception which proves the rule. In one sense value is in all cases subjective but it implies behavior for which there is objective evidence. The evidence is important to the theorist because it is of practical importance to the actors in the economy. This has already been discussed. That prices have some objective limit is a necessary assumption in the explanation of the undisputed fact that time-consuming production processes are undertaken without future contracts. This would not be done if all prices were fancy. Fancy prices would not be able to perform what is called their "guidepost" function.

The marginal utility revolution is thought to have brought a neglected set of facts into economics. Mill's denial that consumption was a part of political economy is often cited as representing the older view, but in one

¹²Hearn, Plutology, p. 248.

sense that belief was less general during his time than now. The development of "utility economics" has certainly not been an enlargement of factual knowledge and the assumption that "tastes are given" appears to be essentially the Millian position. Perhaps that is the only tractable hypothesis of consumer behavior, but it is demonstrably false. In fact, the invention of utility as the basis of quantitative analysis masks some important generic knowledge that is available. In this respect Hearn made two interesting points, neither completely original but both lucidly expressed. The first is the expansion of wants due to man's "complex" nature--his imagination, memory, and so forth. This is reminiscent of Smith's observation that the "Eye is bigger than the belly" but to it Hearn adds:

There is, however, a remarkable distinction in the facility with which desires can be appeased. It is in those cases in which the commodity is essential to our existence or our comfort that the limit to our gratification is soonest reached. Our most irrepres-
sible appetites are the most quickly satisfied. Our most insatiable desires are the most easily repressed. Were it otherwise, with the present predominance of the self-regarding affections, the accumulation of the wealthy might interfere with the existence of the poor.¹³

In a provocative criticism of asceticism, Hearn continues in the same vein:

. . . The supposed inconsistency arises from a confusion of apathy with content. The former term

¹³Ibid., p. 18.

implies that the development of desire is repressed; the latter that it is regulated. Content is a judgment that, upon the whole, we cannot with existing means improve our position, along with an unmurmuring submission to the hardships, if any, of that position. Its aim is, not to satisfy desires; but to appease complaint. It is consequently not inconsistent with the most active efforts to alter the combination of circumstances upon which the judgment was formed.¹⁴

Now if wants can be voluntarily "regulated" or "repressed" as well as "satisfied" a tractable hypothesis of consumer behavior would seem impossible. But it is certainly true that wants are repressed; in fact, far more wants are repressed than are satisfied and it is not far off the mark to describe the market economy as having the primary function of "appeasing complaint." To take an example, what is called the rationing function of prices is better described as orderly want repression. This seems to be what economists have in mind when they oppose nonprice rationing. And it seems to be misunderstood by those economists who favor nonprice rationing of some "essential" good. The cause of this misunderstanding may well be that when this function of "prices" is explained in the language of utility, even in the more sophisticated version of achieving an equality of marginal rates of substitution, it is taken to imply that in some sense different purchasers are alike. But knowing that "one man's meat is not necessarily another man's poison," the economist who favors non-price rationing sees the Edgeworth box proof of the "goodness"

¹⁴Ibid., pp. 21-22.

of free prices as beside the point. On this he is correct.

More important than value theory is the Smithian understanding of the process of production. Already one is faced with one of the subtle ironies of language; Smith used the words productive and unproductive in a literal sense and modern economists are quick to point out that "economic production" is the creation of utilities and not of things. Because of this, Smith is sometimes accused of having a narrow view of the subject but in fact his general theory of wealth was far less technical than the neoclassical counterpart. So it is with reluctance that one may refer to the Smithian theory of production in order to convey the classical views of what modern economists mean by the term. And it is only to contrast modern views now under consideration that Smith's theory is called the single factor theory.

By the single factor hypothesis it is meant that an economy can be best understood not as a system which allocates scarce means among alternative ends but as an organic unit in which there is a tendency for the total fund of human labor to be most judiciously employed. To treat other things as the data of economics is much like trying to understand a football game by watching the spectators.

C. Reinhold Noyes, former director of the National Bureau of Economic Research, in an understandably neglected two volume treatise, presented a neurophysiological analysis of "economic man." Noyes' The Institution of Property¹⁵ is better known than his Economic Man in Relation to His Natural Environment,¹⁶ but both works reflect considerable learning and intelligent analysis. The economist who plods through the Economic Man will surely forget the details but will probably be left with the reflection that many of the older common sense concepts have a scientific basis and that much in modern economics that has passed for rigor rests on sand. Among his many "very classical" conclusions was a rejection of the concept of "scarcity," an idea understood by both Smith and Hearn to mean "obtainable only with labor." The physical environment should be understood not as a supplier of different things but as the occasion for more or less effort. Unfortunately Smith did not completely free himself from the idea of the "bounty of nature" but it seemed only to have affected his analysis of agriculture. Hearn held consistently to the view that "Nature is niggardly."

The rejection of scarcity is tied to the logic of the single factor hypothesis. Noyes accepted the latter, calling

¹⁵C. Reinhold Noyes, The Institution of Property (New York: Longmans, Green, and Co., 1936).

¹⁶C. Reinhold Noyes, Economic Man in Relation to His Natural Environment, in two vols. (New York: Columbia University Press, 1948).

the productive factor "efforts" which, for the curious reader, he defined as "secondary neural energy of response." Noyes writes:

The problem of "economizing" turns out not to be the economizing of "scarce" "factors" by finding the optimum proportioning of limited quantities of mutually substitutable "factors" to produce that mixture which will satisfy the largest subjective quantity of wants. Rather it becomes, in general, the finding of the way of least natural resistance to the satisfying of each want, so that . . . [the] effort which that resistance compels is at a minimum.¹⁷

Noyes' analysis never got beyond the Crusoe economy, but the point being developed here is that the conclusions are applicable to a society as well. Jevons had this in mind when he wrote of his equilibrium conditions that "the formulae as they would apply to an individual" . . . "are identical in general character with those which apply to a whole nation."¹⁸

The theory of production has historically been tied to the theory of distribution, but this should not be condemned outright. The implicit assumption, however, must be made explicit. The implied concept of production is the production of money income--the power to command labor. It is reasonable to assume that the different orders of income have different causes and that wages, rent, and profits imply the presence of three different orders of events or things and that these in turn are production

¹⁷Ibid., p. 745.

¹⁸Jevons, Theory of Political Economy, p. 183.

data. But this is not exactly the neoclassical (or Ricardian) approach to the question.

If this approach seems illegitimate to the neoclassical economist it is because he has, in spite of his professions, a technical concept of production. Value productivity in the modern sense is physical productivity multiplied by price (or marginal revenue). It will be shown that nonlabor "factors" do not produce value in this sense. To support the general view that neoclassical production theory is technical one may cite the separation of production and exchange efficiency and the conception of leisure as a good in order to dehumanize production by bringing the subjective aspect of labor over to the demand side of the equilibrium system.

Earlier non-Marxist economists generally proceeded under the assumption that nonlabor income--rent, interest, and profits--are to be explained in a manner strictly analogous to the explanation of wages. That is, it was assumed that nonwage income implies the presence of something comparable in effect to working. Profits were, for a reason to be given shortly, pushed onto a different plane, leaving rent and interest. The explanation most consistent with the doctrines of classical economics, a solution found most completely developed in the Plutology, is that every payment, including wages, is a payment for labor spared the payer. Wages are the only payment for which actual

labor is an incident--one must say incident because toil is the reason wages are demanded and not the reason wages are paid. This point must be made in order to clarify what seems to be the source of the ethical overtones in the literature of distribution theory. Apparently, wages have never been the subject of an elaborate apology or moralistic attack. The laborer is held to be worthy of his hire. Yet why should toil and trouble give one man a right to exact a price from another when to the other it is of no consequence? The answer is obvious as soon as the question is asked.

The servant works for his master. This mode of expression implies somewhat of a relation of possession between the master and the working. One can imagine in the servant's absence the master "doing his own work." The master pays the servant for sparing himself so much trouble. But let a middle man vend a product and in the absence of the visible reminder of the labor spared the spectator becomes anxious. The worker has never been labeled an exploiter because his activities are a visible reminder of what others need not do. If an angered worker quits his job, to impress his worth upon his employer's memory, he will say, "Do it yourself." But although the nature of the service rendered is exactly the same for every payment if there is no visible labor, the labor spared is unappreciated. It is for this reason, and this reason only, that

economists have been defending and attacking the different orders of nonwage income.

Ricardo's theory of distribution can be said to have roots in Smith's discussion of the "component parts of price" but the emphasis given distribution in the Ricardian sense is certainly absent in the Wealth of Nations. The Ricardian approach to distribution is completely academic for no participant in the economy is concerned with the share of society's income received by the different classes. Yet several consequences of the Ricardian formulation are important to the history of economics. Since Ricardo the laws of production have been considered physical laws independent of positive institutions--witness Mill's famous remark to this effect. The Ricardian impression that rent was unearned was made the ground for socialist programs and occasioned a variety of replies by nonsocialists. Of these two distinct explanations of rent must now be examined.

What might be called the Clarkian reply was Ricardian in the sense that it employed a single product macro-model viewing the economy as somewhat of a single firm. George Stigler, in his History of Production and Distribution Theory¹⁹ presents an excellent account of the early stages

¹⁹George Stigler, Production and Distribution Theories: The Formative Period (New York: Agathon Press, 1968).

of this heresy, which has as perhaps its proudest offspring the Cobb-Douglas production function. Productivity is imputed by marginal analysis to two factors symmetrically.

The other explanation of rent was more Smithian in that it recognized the necessity of an allocative function expressed in the concept of opportunity cost. Marshall came close to an explicit statement of this in his Principles. The American economist Herbert Davenport chose this approach but its fullest statement was to come later from Frank Knight. Because Knight was both a pioneer in formal analysis and an excellent critic of formalism it is possible for different schools, sometimes opposing schools, to claim him as an ally on particular points. And although the question at hand involves a problem Knight approached from a different angle, in his thinking Knight was in many ways the most Smithian economist of this century. His paper on "Social Cost"²⁰ can be said to be the renaissance of Smithian institutionalism. A comparison of the productivity (Clarkian marginal imputation) explanation of rent with the opportunity cost approach will serve well to illustrate how close in spirit is the latter to the single-factor hypothesis.

²⁰Frank H. Knight, "Fallacies in the Interpretation of Social Cost," The Quarterly Journal of Economics, 38 (1924) in The Ethics of Competition and Other Essays (New York: Books for Libraries Press, 1935), pp. 217-236.

In explaining the gratuity of nature, Hearn's treatment of rent is highly suggestive.

But there are cases in which mere waste land, far from any improvement, will, even from the first occupier, command a price. . . . This sum is not regarded as a mere class tax, but is cheerfully paid by purchasers as the fair equivalent of a benefit received. If this price be not paid for the inherent powers of the natural agent, for what is it paid?

. . . The state guarantees to him his heirs and assigns for ever the peaceful and undisturbed possession of the land he has chosen. . . . If such a grant be made the subject of pecuniary consideration, it is because the grantee prefers to pay the price demanded than to run the risk of dispossession. . . . [T]he service which the state renders, and for which payment to it is made, is the extinguishment of all other rights, and the security given to the purchaser. Men therefore pay not for the actual land, but for the title to that land.²¹

There is a profound truth in that last quoted sentence. In the value sense, it is the right of exclusion which is "productive" and for which a price is paid. This has been recently recognized in the theory of commonly owned resources which is a development from Knight's basic paper cited above, but this has not been integrated into general economic thought and discussion. The step to be taken is, after "really believing" that production is the creation of value, to recognize that the "factors of production" are classes of rights. It is possible to show that it is the rights, not the subject of rights (owned natural agents) which produce, and that these rights produce in the sense of abridging labor. Professor Stigler has used a numerical

²¹Hearn, Plutology, pp. 324-325.

example to show that land is productive; the same example can be used for the opposite purpose.

There is a problem in Stigler's Theory of Price²² at the end of his chapter on rent in which it is assumed that there are 1000 each of three distinct types of farms (differing marginal labor product schedules). The number of workers is given and the student is asked to determine the rent of each farm. To answer, the student is asked to destroy one farm, reallocate the laborers and measure the decrease in product, which Stigler then calls the marginal product of a farm of that type. The obvious lesson is that there is an equality between the marginal product (of the farm) and its rent. The problem is given in discrete numbers, but this does not affect the principle involved which depends only on the assumption that the laborers thrown out of employment when the farm is destroyed do not change the wage rate elsewhere.

A better understanding of the reason for rent can be had by asking not of the consequences of destroying the farm but of destroying the owner's right of exclusion. In this case some of the laborers would leave the privately owned farms and shift to the commonly owned one. In the new equilibrium, the average product of labor on the commonly owned farm would equal the marginal product of labor on the other farms. There would be a resulting

²²Stigler, Theory of Price, p. 256. The problem came from Henry Simons' Syllabus for Economics 201.

decrease in total product in the economy exactly equal to the rent previously received by the owner of the farm. In the next chapter of this study more will be said on ownership but it should be immediately obvious that the mysteries of ownership and rent are one and the same. But it is not the right of use but the right of exclusion which is involved because with common ownership the right of use is the greatest and there is no rent. In other words, the land does not produce in any sense. When one considers the economy as an organic unit, what is called "pure rent" is not the imputed productivity of natural agents but the surplus value consequent upon the exercise of this particular right. The landlord does not just "sit and do nothing"; he excludes socially inefficient supra-marginal workers.

The labor theory as a single factor theory of production directed attention to this allocative problem. It can even be argued that the Wealth of Nations, with its emphasis on the division of labor, brought to its readers a better understanding of the allocation problem than the modern concept of opportunity cost which is always in danger of being given a technical interpretation. As long as economists thought of labor as the only real cost there was no danger of forgetting that cost is a personal experience of the supplier. Wicksell saw the relation between classical cost theory and opportunity cost. In a criticism

of the cost of production theory of the value of money, a criticism so sympathetic that Wicksell may almost be counted as an adherent, Wicksell wrote:

The cost of production theory does at least, though one-sidedly, find the cause of the change in the value of money in something directly affecting money. . . . That a commodity which can be manufactured more easily will fall in price is at bottom a corollary of the obvious fact that labour and capital, in so far as they can be readily transferred from one branch of production to another, must always tend, each for itself, to obtain an equal return in all branches of production. There is clearly nothing else in the theory of the dependence of relative prices on the cost of production.²³

One need not, of course, accept Wicksell's implication that because there is "clearly nothing else" in the cost theory that what is in it is not much. And it will be shortly argued that the phrase "labor and capital," by no means peculiarly Wicksellian, is misleading. A transfer, from one branch of production to another, of capital implies a transfer of labor.

The multi-factor hypothesis gained credence with the refinement of neoclassical economics as the theory of production by "firms." No objection can be raised against this heresy so long as it is properly contained, but the theory of the firm cannot be extended by aggregation or analogy to the entire economy. The problem is not merely one of increased complexity; the meaning of production for the economy is qualitatively different. For an individual

²³Wicksell, Lectures, Vol. II, pp. 154-155.

company physical production is an appropriate concept; the existence of engineering schools is sufficient proof of this contention. But such a concept of production is not valid for the economy as a unit. To take the important practical application of this truth, it is not legitimate to sum the marginal product curves of different companies or industries to get a useful aggregate demand curve for labor. If the economy is in full employment equilibrium the summation is valid but trite. If the economy is in disequilibrium, the process of obtaining equilibrium will involve relative product price changes which would shift the aggregate demand curve unpredictably. It is entirely possible that the process of eliminating unemployment results in an increase in the average (real) wage rate. For the economy as a whole the most important factor affecting the value of output is not the level of employment but the judicious division of the labor force. This information is not contained in the multi-factor production functions.

Had macroeconomics been pursued in the terms laid down by the great Scottish moral philosopher unemployment would have been properly understood as caused by the obstacles to the proper allocation (division) of labor. Moreover, the division of labor would not have had to share its dignity with the secondary problem of the allocation of physical resources. The specification of the tasks

to be performed involves simultaneously the specification of the materials to be used and the latter should not be conceived as a separate problem. In the example from Stigler's text, when the laborers have been allocated among the farms, the farms have also been "allocated."

There is no doctrine in all of the social sciences which can compare in importance to the division of labor. It was not a foolish overstatement for Adam Smith to attribute all of progress to the division of labor. Economists have not shared Smith's understanding of this expression, the appreciation of which indicates the redundancy of "social division of labor" and the contradiction in "international division of labor." Smith's example of the pin-factory has unfortunately led economists, such as in the case of Senior, to equate the "division of labor" with "specialization." The pin-factory illustration was too good for its purpose, for it seemed to have caused Senior to substitute the expression "division of production" and others have followed in this narrow view. But Adam Smith was not one to use the language badly and if he had meant "separation of tasks" he would not have said "division of labor." A division implies a dividend and what this meant to Smith is not far to seek.

Smith's earliest use of the expression, for which there is a record, clearly indicates that it was the annual fund, or, as modern economists would say, the labor force,

being divided. In his Lectures as edited by Cannan, we learn that Smith said:

In a civilized society, though there is a division of labour, there is no equal division, for there are a good many who work none at all.²⁴

The implication that there is no division of labor in a primitive society is plain. The concern here for the division among individuals is not found in the Wealth of Nations, however, where the division is always among trades. The first six words in the Wealth of Nations are "The annual labour of every nation. . . ."²⁵ Much as some may regret it, Adam Smith did not write a treatise on the Wealth of Individuals. The dividend implied by the expression "division of labor" is the national fund of human energy, the first purchase money of all things.

One may speculate that Smith had first used the expression in notes as a heading for a listing of categories much as Blackstone and others spoke of the "division of law," and much as later writers would speak of capital as "divided" into fixed and circulating. This speculation has the encouragement that in the Wealth of Nations Chapter I of Book II, "Of the Division of Stock," parallels somewhat Chapter I of Book I, "Of the Division of Labour."²⁶ The origin of the division of stock is similar to the origin

²⁴Cannan, Lectures, pp. 162-163.

²⁵Adam Smith, Wealth of Nations, p. lvii.

²⁶Ibid., p. 262.

of the division of labor, but this was probably a later thought. When a man

possesses stock sufficient to maintain him for months or years, he naturally endeavours to derive a revenue from the greater part of it; reserving only so much for his immediate consumption. . . . The general stock of any country or society is the same with that of all its inhabitants or members, and therefore naturally divides itself into the same three portions, each of which has a distinct function or office. . . .

In all countries where there is tolerable security, every man of common understanding will endeavour to employ whatever stock he can command, in either present enjoyment or future profit. . . . If it is employed in procuring future profit, it must procure this profit either by staying with him, or by going from him.²⁷

The reader will notice that stock is divided into definite classes, but the same is not done for labor. If this is a reconstruction of Smith's thought one can imagine that as soon as he attempted to list the divisions of labor which held true for all societies he saw this to be impossible. At this point he was forced to reflect on the fact that in the advanced societies there were more distinct occupations than in a primitive society. He then sought to explain the increased output which was so obviously correlated with the trend toward increased divisions of labor. Smith's three famous advantages of the divisions of labor should be understood, then, as attempts to explain this impressive historical pattern rather than the logical consequences of specialization. Thus attributing invention to the division of labor, particularly in light of the

²⁷Ibid.

discussion toward the end of Chapter I, was natural.

Smith clearly intended the pin-factory story to be but an illustration.

The effects of the division of labour, in the general business of society, will be more easily understood, by considering in what manner it operates in some particular manufactures.²⁸

Smith frequently speaks of the division and direction of labor and sometimes of the division of stock in the same sense.²⁹

According to Smith, the proper division of labor is obtained as a result of investment decisions. It does not contradict the single factor theory to speak of capital, for its sole function is to set labor into motion. If capital is understood as a class of rights the meaning of a fund of power to command labor is immediately clear. Such a fund is distinct from labor and is distinct from natural agents. It does not produce in the physical sense but it is capable of creating additional surplus value.

The productive powers of the same number of labourers cannot be increased, but in consequence either of some addition and improvement to those machines and instruments which facilitate and abridge labour; or of a more proper division and distribution of employment. In either case an additional capital is almost always required. It is by means of an additional capital only, that the undertaker of any work can either provide his workmen with better machinery, or make a more proper distribution of employment among them.³⁰

²⁸ Ibid., pp. 3-4.

²⁹ Ibid., pp. lviii-lix, 86, 149, 154, 220, 236, 243, 326, 346-346, 355, 359, 415, 433, 466, 459, 404, 421, 471, 473, 594-595, 596, 645, 650, 651, 792.

³⁰ Ibid., p. 326. See also p. 260.

This fund of power to command labor is of course more like the Knightian than the Austrian view of capital. Bohm-Bawerk and Hayek have referred to such a concept as "mythological" but it is no more so than subjective value in any other application.³¹

The truth of Knight's two central elements in his theory of capital seems incontrovertible. First, the causes of the growth of the capital fund are not limited to changes in technique as the Austrians believe. Secondly, capital is a fund which maintains itself. In Smithian terms, one's command over labor is renewable with a surplus. This surplus is interest.

If value is understood as resting in rights rather than in things the first point should be obvious. Moreover, if contracts are understood as creating rights which avail against other persons there should be no mystery in the process of increasing the aggregate value of society's wealth without the alteration of any physical assets.

Bohm-Bawerk was at pains to show that capital did not exist as something separate from and in addition to the natural agents of production.³² Irving Fisher improved on

³¹F. A. von Hayek, "The Mythology of Capital," Quarterly Journal of Economics, I (February 1936), reprinted in Readings in the Theory of Income Distribution, ed. H. S. Ellis (Homewood, Ill.: Richard D. Irwin, 1951), p. 355.

³²Eugen von Bohm-Bawerk, Capital and Interest, in three volumes; Vol. II, Positive Theory of Capital, ed. Huncke and Sennholz (South Holland, Ill.: Libertarian Press, 1959), pp. 97-100.

that mistake.³³ What seems to throw the mind onto the wrong tracks is the problem of "double counting." Nothing seems more plausible than to say that if one wishes to measure the aggregate wealth of capital of a nation one should not add the physical assets and the claims against those assets. But it is the machines and not the "paper assets" which should be left out of the tally! In other words, Fisher's method of "balances" and his method of "couples" are not equivalent and only the former is acceptable. The method of "balances" is to sum all individual capital balances. The method of "couples" is to recognize that every "paper asset" is matched by a liability and assume that they can be canceled leaving only physical assets as society's wealth. But the value of the real assets is not independent of the structure of rights and Fisher has no basis to assign numbers to the physical assets. In value terms, the whole is greater than the sum of the parts for the arrangement of the parts counts too. The increase in capital value is the raison d'être of companies. The point to be emphasized is that capital is not physical assets "looked at from the value point of view"; capital is the sum of certain rights, the power to command labor. The title of a piece of land is a capital sum, not because of the productivity of the land but because of the vendibility of the title.

³³Irving Fisher, The Nature of Capital and Income (New York: Augustus Kelley, 1965), Chapters 5 and 6.

It is now possible to relate "pure" profits as a factor payment for the service of "organization" or, in Hearn's words, "express co-operation." Consistent with the general theory presented here of the "factors," profits result from the exercise of a combination of rights of contract and disposition of property. In addition to the ingredients of a product there is the service of combining. The company is a cluster of contracts; the entrepreneur is the hub of the cluster. Unlike the income of the other contributors, his reward is not an observed transaction or the simple sum of like transactions. Profit is a computed gain. The businessman is a middle man who faces society on two fronts; he buys and sells. In his distinctive capacity he is like a purchasing agent for his customers and a broker for his suppliers. The persons in these two groups are spared the trouble of becoming friends. This idea of combining as a source of capital value received explicit expression in the passage just quoted from Smith and was one of the sources of interest cited by Knight.

. In the neoclassical technical sense of production organization has no place and "firms" are treated as pre-existing entities. Profits as a reward for organization would be a very unnatural conception in such a framework; it would be difficult to explain, for example in terms of the familiar circular flow diagram, how "households" contribute "organization" to the "firms." The only way to

explain profits in such a framework is as an extraordinary payment. But although the earlier economists failed to distill "pure interest" from profits this may not have been as serious error as boiling off profits completely.

To return to the second aspect of Knight's theory, if a capital fund sets productive laborers into motion it can replace itself with a surplus. By this is meant that the final capital fund can command more labor than the initial outlay. This is obviously only possible if the process in one way or another abridges labor. The labor abridged is the source of interest. The economic ubiquity of labor thus renders any abridgement cumulative in effect and the time length of capital projects is not relevant. Because of its cumulative effect there is a premium on work done sooner. Thus at any time there will be a single real rate of interest which is a measure of this premium.

Rather than embarrass the labor theory there is no better confirmation of its truth than interest. In a society where there is a positive rate of interest individuals will naturally behave as if they have "time preference" but that this is not an explanation of interest need barely be said. Frank Knight has well shown the absurdity of the "assumption of a general preference in human nature for present over future goods." Knight's remarks ably substitute for any lengthy discussion:

If one had to choose between enjoyment to-day with abstinence to-morrow on the one hand, and abstinence

to-day with enjoyment to-morrow, on the other, which would be more desirable, all other things being equal? Or better still, if a man were given his entire income for a year in a lump-sum payment on January first, how would he distribute its expenditure through the year?³⁴

From what has been said of utility theory little now need be said of those interest theories which use that mystical magnitude for the missing equation.

The determination of the rate of interest is a question of considerable theoretical importance. What is needed is a statement which will supply the analyst with a number, at least theoretically. The labor theory of value supplies such a number. The rate of interest computed in labor units will be equal to what can be called the marginal abridgement rate. As is often done in economics one can simulate conceptually how this magnitude could be ascertained. Shift the application of a unit of labor forward in the productive process, from time t to time $t + 1$, adding labor at time t so as to keep output (and its time stream) constant. The abridgement rate is that fraction of a unit of labor added; the marginal abridgement rate is the least of all such rates in existence; it would of course be equal in different branches of production. It is a pure number except for an inverse time dimension and can be converted into a money rate according to a well-known formula. The

³⁴ Frank Knight, Risk, Uncertainty and Profit (New York: Augustus Kelley, 1964), p. 131.

additional information needed would be the labor value of money at each of the two points in time. Although this is a "productivity theory" of interest, unlike others it satisfies the requirements of a true theory in that the "principal sum" and the "product" are in the same dimension and are independently determined. These magnitudes are, respectively, the command over labor and the labor abridged.

In summary, the system of natural liberty can be understood as one in which by the device of contract a structure of control over labor emerges so that society behaves as an organic unit in economizing the labor fund. Physical output (understood here to include the results of what Smith called unproductive labor) has a single antecedent, the single factor of production labor. The other "factors of production" are classes of rights which, when exercised, abridge labor. In any transaction, the purchaser receives value equal to his labor spared. Measured in this way, the total value of output must naturally be greater than the total labor fund. The total value of output less the labor fund is the total surplus value, an index of the wealth of the nation. Total surplus value is an indicator of how much additional labor would have been required to produce the output had there been no social organization and in this sense can be said to be a function of the institutions.

The growth in total surplus value comes about as a consequence of particular sectors attempting to economize their "share" of the labor fund. That is to say, the attempts of capitalists in a trade to increase their own surplus value take the form of contrivances to reduce the actual labor requirements and thus release labor to other trades. There being a limit to the demand for the products of each trade labor released will be plied into new ones; this process is called the division of labor. Over time, of course, there may be an abridgement of the annual fund (a shorter work week or longer vacations). This would be the most reliable indicator of prosperity. However, it is reasonable to assume that, other things being equal, a growth in output is good because people could have worked less but chose instead more amusements and conveniences.

Little can be said about individual preferences for commodities. It is positively misleading to take individual preferences as the trigger of economic activity for as Veblen long ago and Galbraith more recently were wont to argue, preferences are subjected to considerable external influence. This of course does not imply that the decision to repress or satisfy a want should be made by an agency; in fact it would seem that the traditional assumption of the individual's superior knowledge of his own circumstances is the rule the exception for which should be proved in order to justify appropriation of earned power to command labor.

CHAPTER VII

THE THEORY OF ECONOMIC INSTITUTIONS

When in a discourse upon some economic topic, such as for example the velocity of money, reference is made to "institutional factors" as a cause, the belief seems to be that economic science has reached the edge of its domain. Similarly, from the use of the expression "pure theory" one might infer that institutions are the impurities of which the science must be cleansed. There are some signs, however, that at least in certain circles this attitude is beginning to change. The economic mind has come to accept the study of institutions as a part of its work. But it must not be thought that an appreciation of the importance to each other of these two branches of social philosophy is entirely new. It is the purpose of this chapter to show how Hearn's work in jurisprudence nicely complements his work in political economy. But it is first necessary to consider the relation between these two studies and determine the extent and limits of each.

Because the habits of mind which bring success differ between these two studies there are two dangers of impatient inquiry. The mind's eye to focus must filter. The received light, however, soon sparks an inner flame. As it turns to

new tasks the mind pretends it has the power to illuminate. Little need be said of this pretension. Light comes only from the facts; vision never lights its own way; the mind casts only shadows. Accordingly, eager attempts to relate two distinct realms of phenomena has produced two views each of which is, at best, premature. A few critical comments on the "institutional theories of economics" and on the "economic theories of institutions" will therefore point to the need for a "theory of economic institutions." The institutional order and the economic order co-exist and are related. But the relation is not as some writers have supposed.

With institutional economics one associates the names of John R. Commons and Thorstein Veblen. These men and their disciples have made little effort to hide their dissatisfaction with existing institutions and this of course has marred their work. And too this work has suffered some neglect because Commons and Veblen wrote at a time when economics was becoming the theory of price. Their theories of price and of value were the least defensible of their doctrines. The Veblen effect is now mentioned only as a curiosity;¹ Commons' "reasonable value" is unknown to the modern student.² But their intuition was not so bad as their

¹Harvey Leibenstein, "Bandwagon, Snob, and Veblen Effects in the Theory of Consumers' Demand," Quarterly Journal of Economics, 64 (May 1950).

²John R. Commons, Institutional Economics: Its Place in Political Economy, in two vols. (Madison: The University of Wisconsin Press, 1961), Vol. II, Chap. X.

opponents seemed to think. Commons and Veblen had little patience with the emerging theory of market clockwork. That theory relied heavily on the functions of prices so it was natural for them to attack this vital part of the theory. To them the neoclassical value theory was little more than an apology for a legal order that they resented. There is ground for this view but no ground for the belief that prices are determined by "institutions." In the extreme, then, "institutional economics" is the denial of the existence of an economic order distinguishable from the legal order or sociological order founded on custom. To the extent that the doctrines presented in the preceding chapter of this study are correct, "institutional economics" is not valid.

These considerations nevertheless indicate the scope for valid "institutional explanations" of areas of commercial or industrial life. The question does not turn on whether the conduct under examination is nonvolitional. There is some precedent for this view which is reflected, for example, in the phrase already mentioned: "institutional factors." Institutionalized conduct is nonvolitional but not for that reason unamenable to genuine economic analysis. That this might be thought to be the case owes to the modern conception of the nature of economic order. But the theory of economic order presented here does not rest on egoism or on individual choice. The family for example is based

on love and within the family there is a division of labor in most cases based wholly on custom. But on the other hand, if all prices were set by governmental decree, Commons' theory of "court-determined value" would be no less invalid than it would be in a liberal society.³ Commons' theory, like the theory of supply and demand, are not explanations of prices. These theories are statements of how prices are determined rather than statements of what prices will be. Thus institutionalism is concerned with the form rather than the substance of human behavior, with the manner rather than the matter of industrial affairs. Even in the absence of metric uniformities certain patterns persist. If, in addition to this uniformity of technique there be regularity in the content of human behavior institutionalism stops and economics takes over.

The cause of confusion in these matters has already been explained. Neoclassical economics does not adequately distinguish between the legal order and the economic order. But to use another example, Professor Hayek has said that the "price system" is a "marvel of efficiency" because people without concert "make the right decisions."⁴ Professor Hayek seems to imply that people not only exercise

³Ibid., p. 685.

⁴F. A. Hayek, "The Use of Knowledge in Society," Chap. IV. in Individualism and Economic Order (Chicago: University of Chicago Press, 1948), p. 86.

their decision-making authority but that the content of these decisions is in some manner predictable. But Professor Hayek needs some criterion of "efficiency" and it follows from the nature of the problem that that criterion must be transinstitutional. The subjective theory of value is, as previously explained, not a genuine theory of value and its employment converts the theory of economic order into a tautology. But even though the legal order is anterior to the economic order of society and even though the legal order contributes to the latter, the two are distinguishable. The two theories must be kept separate.

The second approach to economic institutions must now be considered. As suggested, this is an application of accepted economic doctrines to "explain," or more often, to justify or condemn, particular institutions or systems. The recently developed literature on the economics of "property rights" comes to mind.⁵ Also, the analysis of the effects of property in the preceding chapter falls into this category. But it must be admitted that this work, strictly speaking, is not free of normative elements. Even if recommendations are not explicitly made, to show

⁵See, for example, Kenneth W. Clarkson, "Some Implications of Property Rights in Hospital Management," The Journal of Law and Economics, XV (Oct. 1972), 363-384. and Donald L. Martin, "Job Property Rights and J-b Defections," The Journal of Law and Economics, XV (Oct. 1972), 385-410.

that one arrangement results in a greater output than another has an effect on the reader and it is difficult to believe that such an effect was unintended. But a more serious objection is to be levied against the recent theoretical developments. Following Coase, there is emerging what can be called the catallactics of property rights. In these studies, usually concerned with some particular problem rather than with the general principles of society, a view towards "rights" is taken much like the view taken toward "goods" in the pure theory of exchange. This work appears to have been too hastily done; the analysis has proceeded from an imperfect description. In other words the truly positive work has been passed over. Attempts are being made to explain the effects of institutions the cause and nature of which are not fully understood. This lacuna can be well filled by extractions from Hearn's work in jurisprudence.

Some extracting is of course necessary. Just as the jurist can decline to consider the law of diminishing returns the economist, with perfect composure, can remain forever ignorant of the rules of evidence. But, as already suggested, the law of property and of contract touches the material of economics too directly to be ignored. And these institutions can be said to be "basic." There are other forms of institutionalized conduct that are however less regular. Traditional business and banking practices

must not be brushed aside too quickly. What is of great importance is that the theory of economic institutions not be constructed so as to cause such practices to be forgotten. It is well established that a theory must be tractable. But by this two things are implied. The theory must lead in the proper direction and it must not prevent the theorist from going further, if additional details need be considered. The framework must rest on solid ground. And this framework must be assembled so that it is not laid under undue stress when, at a later time, the wings and wall of the edifice are installed in their proper place. Hearn's legal theory provides such a skeleton. As Hearn's theory is presented here the view will emerge that institutions are techniques of creating the means by which one man can control the conduct of another. The system of property and contract is complete in the sense that it creates an exclusive and exhaustive set of domains of individual decision-making authority. Each person knows exactly what he must do and what he must not do. And the exceptions prove the rule. That is to say, a theory of the state and of state-action proceeds from the same jural principles which explain private action.

Hearn recognized only two social sciences, political economy and jurisprudence. Whether since Hearn's time it has become proper to extend this list is a question which this author refuses to entertain. What should be noticed

is Hearn's view of "science" or "theory" as the organization of a field of knowledge around a single principle. In the introductory chapter of The Theory of Legal Duties and Rights, Hearn tells his readers:

The universal desire to obtain the maximum of result with the minimum of effort furnishes a basis for the purely scientific part of Political Economy. In like manner, the universal desire to influence in certain circumstances by certain means the conduct of other men furnishes a basis for the purely scientific part of Jurisprudence.⁶

The central concept of Hearn's legal analysis is "duty." In this Hearn differs from other jurists and this difference has important consequences. Hearn offers a logical reason for duty rather than right as the basis for the classification of the law. Every right implies a duty but the converse of the maxim knows some important exceptions. That is, what Austin called absolute duties have no place in a scheme founded on rights. But the emphasis on duties rather than on rights also resembles the emphasis, in political economy, on efforts rather than on wants or on satisfactions. It has been suggested that the concept of "right-duty" has been overworked but it does serve as a reminder that an individual advantage, in itself, is usually burdensome to another party.⁷ The cases which do not fall under this rule are to jurisprudence as the

⁶Hearn, Theory of Legal Duties, p. 2.

⁷George W. Paton, A Text-book of Jurisprudence, 3d ed.; ed. Derham (Oxford: The Clarendon Press, 1964), p. 254.

"free-goods" are to economics. That a right implies a duty is the legal expression of the fact that wants, at least those wants which the economist must consider, imply effort and the effort, at least in the important cases, is vicarious. The trouble with the term "right-duty" springs from the ambiguity of the word right, or rather, its use in both a specific and a generic sense.

As most writers have done, Hearn uses the word right in both senses. But the meaning is usually clear from the context. In Chapter VIII of the Legal Duties Hearn treats of rights, but most of the discussion is critical of other views. It may surprise economists and jurists that Hearn would prefer to dispense with the terms "value" and "right."

Rights occupy in jurisprudence a similar position to that which value holds in political economy. Both rights and value are a part, an important part indeed, but still only a part, of their respective sciences, and each has been mistaken for its whole science. As political economy has been called the science of values, so jurisprudence has been supposed to be the science of rights. In each case the error of the limitation is proved by the fact--which I trust that the place of this chapter in the present essay tends to establish--that the discussion of either science may proceed a long way without any inquiry in the one case into rights or in the other case into values. . . . In the case of political economy it is, with care, possible to avoid altogether the use of the misleading term; but in jurisprudence this expedient, the only sure one, is not practicable.⁸

In this chapter Hearn uses right in the narrow sense, the correlate of duty. To support the importance of this relation, Hearn points out that the Roman jus and obligatio

⁸Hearn, Theory of Legal Duties, pp. 141-142.

each included both right and duty and that the English word right originally meant duty as well. The word was originally an adjective and when so used continues to mean duty.⁹ That is, if a man performs a certain act because he believes that it is the "right thing to do," that man is under a legal or moral duty.

But in matters of law right in its modern sense and duty are not coincident but contrasted. They reside not in the same person but in different persons. A man has a right when another person is or when other persons are under a duty which is beneficial to him. A man is under a duty when the law commands him to act or to forbear in a certain manner or under certain conditions. That duty, however, does not, as we have seen, necessarily presuppose a right; and where a right is implied, it rests in another person, and not in the person upon whom the duty is imposed.¹⁰

Here Hearn is careful to restrict the meaning of right but in other places the word is used in the broad sense to include also liberty and power. Because these concepts are the elements of the theories of contract and of property and of the state, some explanation is now needed.

There are thus three kindred terms between which it is needful to distinguish. These are liberty, power, and right. Liberty means the absence of legal interference. . . . Power means the doing of an act in pursuance of some command given by the law A right implies the interference of the law, on the complaint and at the request of some person for whose benefit a duty has been imposed, for the purpose of enforcing that duty.¹¹

Thus right implies duty; liberty implies the absence of restrictive duty; power is the lawful exercise of

⁹Ibid., p. 142.

¹⁰Ibid., p. 144.

¹¹Ibid., p. 151.

official function. But the distinctions are most readily perceived by considering the negations of each. The negation of liberty is constraint. The negation of right is wrong or breach of duty. The negation of power is disability. Thus when contract is compared to property the idea is duty or right; as institutions contract and property are techniques of creating rights. But when contract is compared to exchange the idea is power. The two ideas differ as institutions differ from transactions.

As transactions contract and exchange have been discussed at several places in this essay; the differences are multiple and important. A contract creates new rights (duties) but an exchange is the transfer of pre-existing "rights." An exchange takes place at a point in time; a contract straddles an interval of time. Exchange is possible between strangers; contract requires some measure of trust. All of these differences must be taken into consideration, at one time or another, by the economist. But although there is a similarity between the two types of transactions, between the two institutions from which they spring there is a marked contrast. That is to say, as techniques of creating rights (duties) contract and property serve opposing but complementary functions. Here the difference is as that between performance and forbearance. This conclusion will be reached by analysis in terms of duties but the argument must be presented in parts.

Two, not one, contentions must be proved. Separate evidence will therefore be presented for each case. The essential function of contract is the creation of positive duties; the essence of property is the restriction of liberty.

The present author has carefully searched the standard treatises and has found that while definitions of contract invariably include references to "acts or forbearances" the examples given of forbearances are invariably suspensions of powers. A promise not to sue is called a forbearance but it is in effect a discharging of a definite claim by a single claimant. A promise not to conduct a particular type of business is a suspension of power but its rarity is suggestive. For the same reason that cartels are instable it is not often that one man will purchase the commercial inactivity of another. It is often remarked that the state is frequently--it is sometimes said always--a partner of the monopolist. The implication is that a supplier will not ordinarily purchase the departure of his competitors. Now when this logic is applied to liberty, exceptions are more difficult to imagine. The reasons for this are not far to seek.

Prior to contract the two parties must have a meeting of minds; they must come to terms. As the duties created are consensual, in the precontract higgling the parties must be free to reject offers. If the contract called for

a forbearance, the freedom to reject an offer would imply a performance. But if a man is at liberty to do something, it is difficult to purchase this liberty from him. If the action is variable he can unduly enlarge his threat. If the liberty be general, others will follow. To illustrate with an example that has become famous, if the law allowed a rancher to destroy the crops of a neighboring farmer, the rancher could extort all from the suffering farmer.¹² The problem is greatly magnified if the forbearance sought need be general as is usually the case. A payment by the farmer to the rancher would certainly invite others into this strange and costly commerce. One would expect the farmer to pay the rancher only under very special circumstances. The activity involved need be specific. But if the law allowed the rancher to let his cattle cross the line, must he restrain his sheep? What about his children? Would the farmer have to pay the brats to keep out of his pond? Now if he pays the rancher on one side, what about the neighbor on the other side? What about the hunter or fisherman from the city? It should be clear that, in general, the boot is on the other foot. This problem will be discussed in more detail shortly. It is first necessary to show that restrictive duty is the essence of property.

¹²Ronald Coase, "The Problem of Social Cost," Journal of Law and Economics (October 1960), reprinted in William Breit and Harold M. Hochman (Eds.), Readings in Micro-economics (2d ed.; New York: Holt, Rinehart and Winston, 1971), pp. 485-486.

When an ordinary man is told that a certain building or tract of land is "private property" he thinks not of the owner's liberty to use or power of disposition. The idea immediately brought to mind is that with one exception all people are to forbear from entering. In most cases the identity of the owner is not known. Exactly as each person represses more wants than he satisfies he is excluded from much more than he brings under his hand. And professional writers, not less than the laity, despite their best efforts often lapse into common sense and understand property in the way it is described here.

Sir Henry Maine has truly said that, in relation to ownership, what needs to be explained is not the right of use but the general absence of that right.¹³ It is no mystery that a man would want to use his property exclusively; what invites attention is that others willingly forbear. In law, when, by analogy, the concept of ownership is extended to so-called incorporeal property, the extended concept is not right but duty. A man is said to have property in his reputation. The liberty to use or power to have property in his reputation. The liberty to use or power to transfer this right is absurd; what is implied is that others are restricted from acting in a

¹³Henry Maine, Ancient Law: Its Connection with the Early History of Society, and Its Relation to Modern Ideas (3d American ed.; New York: Henry Holt and Co., 1864), p. 248.

damaging manner. A patent or copyright is called property. Such an award restrains all but the holder. It protects the holder from competition but it does not grant him new liberties or powers. Blackstone observed that game laws were an attempt of the laws of England to "make everything private property."¹⁴ Game laws restrict liberty; they do not enable. There was a doctrine of the English common law that ownership of land extends ad inferos et usque ad coelum.¹⁵ That is, a man who held the title to a piece of land could exclude others from entering from either above or from below. This rule was modified by legislation for the purpose of air traffic but its aim was clear. The rule was not laid down to define the scope of the liberty of the owner; the domain thus defined was much larger than one would ever hope to use. The doctrine spoke to the nonowner.

When it is said that the system of private property is complete what is meant is that there is no domain without exclusive authority. In such a system there would be no unowned parcels of the physical environment. To convert an unowned thing into property is to put all persons but one under a duty of forbearance. Thus property is a special case of a right in rem, a right availing against the world. That is, the only true right of ownership is the owner's

¹⁴William Blackstone, Commentaries on the Laws of England, ed. T. Cooley (Chicago: Callaghan and Cockcroft, 1872), Book II, p. 14.

¹⁵Paton, A Text-book of Jurisprudence, p. 458.

right to exclude. As this correlates with a general duty it cannot be created consensually.

It follows from these remarks that the individualistic or libertarian theories of property are indefensible. Locke's labor theory must be rejected. Any theory which points to the advantages or interests of the owner would seem to imply that every man must have a domain for self-expression. But nothing of the sort is implied by the institution as it exists. There may be nonowners but there is no nonproperty where the system is said to be complete. The reader may wish to make the reservation that "even the pauper owns his clothes" but to do so would certainly push the argument beyond the limits of the spirit of the individualistic theories. The law seeks to make all things owned but it in no way makes owners of all people. There are two analogies of this mode of operation which help to indicate its necessity. In custody suits the court finds a parent for each child but makes no pretense of finding a child for each parent. The Society for the Prevention of Cruelty to Animals is more concerned with finding owners for lost pets than in finding pets for petless families. The court has not failed its purpose if a parent is childless; the humane society is not grieved if a boy is without a puppy. In like manner, the law of property is deaf to the desires of the have-nots. This fact is obvious upon the slightest reflection but has received little emphasis except by critics of property.

There is an aversion, among certain philosophical writers, toward admitting that ownership is related to physical things. It appears in some cases that there is a desire to press the point that "property rights are human rights." But it may be safely averred that no one but the intellectual has ever believed otherwise. But the point that stones and cattle have no rights can be made without disassociating physical things from the concept of property. But there is another cause of this inclination. In the law remedies have been sought under the name of property for violations of rights in rem other than true ownership rights. "Property" in one's reputation is an example already discussed. But as such rights are not created, transferred, or extinguished in the same manner as true ownership rights a distinction should be made. And it would be most unnatural to base the general notion on what is obviously an extension by analogy. But again this error springs from analysis in terms of rights rather than the less ambiguous concept of duty. Such analysis looks at the beneficial interests rather than the duties for which the existence of such benefits exists. In the case of true ownership the law creates a shield behind which it is futile for the theorist to investigate.

When it is said, by Coase for example, that property is a bundle of rights what is meant is a collection of liberties.¹⁶ Coase suggests that the content of the

¹⁶Coase, "The Problem of Social Cost," p. 517.

"bundle" is numerable. He writes that one cannot do anything with his property, that only specified activities are allowed. But it is the limitations of liberty rather than its scope which is specified. That is to say, subject to certain limitations, a man may do anything he wishes to his property. Attention is invited to the use here of the accusative rather than the ablative case. Property is the object, the domain of liberty; it is not the means, or at least not generally. A man who owns a gun may do anything to it but what he does with it is another matter. This example is a favorite of those who wish to show that property cannot be absolute; but it serves however to show how great confusion can spring from something so seemingly small as an improperly chosen preposition. In general, a man may do absolutely anything to his property and absolutely nothing to the property of others. It is the function of the institution of property to define these domains.

It is now possible to reply more fully to the question raised above. An allusion has been made to the paper by Ronald Coase in which it was suggested that a man might buy off a nuisance. One has to be careful in charging Coase with having made an error, for the general theme of his work is seldom clear. But that he leaves his readers scratching their heads is objection enough. Coase certainly leaves the impression that what economists call "external

costs" or what lawyers call "damages" refers to a set of problems for which there is a contractual solution.¹⁷ He makes a good point in suggesting that the judge ought not be about the business of ruling on the basis of expediency. But Coase seems to think that there is symmetry in the problems which he examines. Of his many examples, that involving the doctor and the confectioner is among those most favorable to his thesis. But an examination of this case in terms of duties rather than rights reveals the general invalidity of Coase's theorem. The doctor, in conducting his practice, does not inconvenience the confectioner. In order to conduct his business the confectioner does not need a court order to restrain the doctor. But there is damage to the doctor if the confectioner makes noise. The doctor's practice requires the protection of restrictive duties. Such a duty is, as noted, difficult to negotiate. The judges, in ruling in favor of the doctor, were applying the general principle of the law of property. The law creates that duty which is costly to negotiate and allows for its suspension, if the donee of the corresponding right should so choose. In Coase's language the "right" of the doctor is more cheaply extinguished than the "right" of the confectioner. But again, the conflict is better described as an absence of a needed restrictive duty than as an overlapping of "rights."

¹⁷Ibid., p. 496.

In his Theory of Legal Duties, Hearn analyzes ownership in detail. He suggests that ownership be understood as a collection of "several independent rights." He here uses "rights" in the broad sense comprehending rights strictly speaking, liberties, and powers. But this collection of "rights" must be distinguished from the concept of "bundle of rights" now afloat. Ownership is a collection of generically distinct relations, not a collection of liberties.

Many attempts have been made but with little success to define the right of ownership. The cause of this failure is not difficult to trace. There is no such single right. Ownership is merely a collective term denoting the aggregate of several independent rights. It has no meaning other than the sum of its component parts, and it admits of no other definition than an enumeration of these parts. Little difference of opinion exists respecting this enumeration. The rights which collectively constitute ownership are the right to possess, the right to use, the right to the produce, the right to waste, the right of disposition, whether during life or upon death, and the right to exclude all other persons from any interference with the thing owned. In the language of the Civilians, dominium includes jus possidendi, jus utendi, jus fruendi, jus abutendi, jus disponendi, and jus prohibendi.¹⁸

This enumeration is more complete than others, such as that of Holland, for example.¹⁹ It is historically significant, a reminder that the law has had to distinguish, at various times, each of these rights. But happily the list can be condensed with no significant loss of meaning.

¹⁸Hearn, Legal Duties, p. 186.

¹⁹Thomas E. Holland, The Elements of Jurisprudence (13th ed.; Oxford: The Clarendon Press, 1924), pp. 209-210.

Moreover, ownership is neither a right nor a collection of "rights" but rather an office to which, at most, three definable "rights" can be attached and to which, at least, is attached the right of exclusion.

Jus possidendi has been the source of considerable confusion. The reason for this is that possession is both a fact and a right, or has at least been so treated. But as Holmes²⁰ suggested and as Pollock²¹ more emphatically argued, possession is much less a right than a fact. As a fact it is presumptive evidence of ownership and this rule is ancient. This seemed to have impressed Mill who linked the origin of ownership to possession. To the learned C. R. Noyes possession was the "magnetic core" to which the other rights were attracted.²² But this "core" is the concept of office. Now it must be asked if, in addition to the rights of possession in the senses above, is there a distinctive right to possess? It does not seem that there is such a right. That is, the "right to possess" never includes more than, but is always comprehended by the right of exclusive use. The deletion, therefore, of possession from the enumeration of ownership rights is not to be lamented.

²⁰ Oliver W. Holmes, The Common Law, ed. Howe (Boston: Little, Brown, and Co., 1963), p. 169.

²¹ John Pollock, Jurisprudence and Legal Essays, ed. Goodhart (New York: St. Martin's Press, 1961), p. 98.

²² Noyes, The Institution of Property, p. 310.

For reasons already given jus utendi and jus abutendi can be combined and designated the liberty to use. Jus disponendi is a power rather than a right, strictly speaking. Of course jus prohibendi has already been discussed in detail as the only true right of ownership. Thus at most the office of ownership can be the seat of liberty to use, the right of exclusion, and the power of disposition. But the concept of office is needed because it is possible to be an owner and not have any of these "rights" and it is also possible for ownership to exist without an owner. A man may own a house for which the exclusive right to use has been transferred to a tenant and for which an agent has the power of disposition. The owner is completely severed from his property but he, and he alone, is yet the owner. He holds an office which, of the moment, is a mere shell but to which the various rights would revert if they were to expire. To use Noyes' apt phrase, ownership is a magnetic core. Also, after death but prior to probate an estate is private property without an owner. The general duty of forbearance becomes for a time universal.

On the questions of the origins of property and of contract Hearn was not silent. In his Legal Duties, Hearn suggests that the antecedent of contract was the customary power of the patria familias.

There is a curious relation between Custom and Contract. They mark contrasted periods in the history of society. In each of these periods they

severally perform a similar function. Custom is characteristic of archaic society, contract of modern society. . . . When the State became developed, the old household and the clan gradually gave way before it. . . . As the old order gradually passed away, provision for the new order became necessary. When the individual emerged from the "Familia," his personal relations were multiplied and were often new. But it never was the object of the State to interfere with men's mutual relations so long as the relations did not interfere with public interests. . . . In the absence, therefore, either of corporate control or of political control, men settled their relations by mutual agreement. Accordingly, as the State grew, contracts also grew. They were not indeed unknown in archaic times, but their condition was so rudimentary that they may practically be regarded as creatures of the law. The movement of the progressive societies has, in a phrase that has become almost popular, been described as "a movement from status to contract." With the substance of this proposition I concur, but its form seems to me inexact. It compares in two sets of sequences the antecedent of the one with the consequent of the other. The statement would, I think, be free from objection if it were alleged that the course of jural evolution is from custom to contract.²³

The state is a jural society, a nongeneological clan.

Thus Rome was the first true state and it was not a spontaneous growth. Romulus and Remus and their friends established a new type of society which differed from archaic society as law differs from custom.

I think that we cannot be far wrong if, among the most important domestic consequences of the growth of a moderately strong and orderly Government, we enumerate the following advantages:--First, such a Government substituted the Formless for the Formal method of transacting all kinds of ordinary business; that is, it substituted the intention of the parties as expressed in any reasonable way for onerous ceremonies of the older time. Secondly, it substituted citizens for clansmen, and thus rendered possible the

²³Hearn, Theory of Legal Duties, pp. 47-48.

existence of larger communities; that is, it increased the number of persons between whom co-operation and exchange could take place; and it strengthened for all purposes, both internal and external, the whole community. Thirdly, it substituted contracts and wills for the fixed customary rules dealing with property both during life and after death; and thus individual energy was enabled to make in a great measure its own affairs. Fourthly, it took into its own hands not merely the terrible custom of vengeance but all offences against person and property. It thus secured not only internal peace and good order, but also the fulfilment of promises between persons who had otherwise no mutual special relations.²⁴

Thus contract and the disposition of property, as these powers are understood by modern man, can for practical purposes, be regarded as creatures of the state. However, property in its essential form antedates the state. Hearn disagrees with Bentham on this point.

Various important social institutions are usually described as though they were the creatures of law. Thus Bentham remarks that "Property and law are born, and must die together. Before the laws, there was no property. Take away the laws, all property ceases." The statement also that the end of Government is to maintain tranquillity at home and peace abroad is ordinarily accepted as an axiom. Yet it may confidently be alleged that none of these statements is historically true. Property existed long before the State, and consequently before the laws which proceeded from the State. It now exists in many parts of the world without the State. It would probably, although in this case we can but conjecture, survive, at least in some degree, the State.²⁵

In the Aryan Household, Hearn suggests that the origin of ownership is to be understood as a religious sentiment.

Sir H. S. Maine, a writer whose opinions on this subject are based upon a knowledge of facts far beyond the command of his predecessors, finds himself, in

²⁴Ibid., p. 23.

²⁵Ibid., p. 21.

dealing with the early history of property, confronted by the question, "Why do men respect other men's property?" He points out that this question coincides with the other question, "Why did men live under the system of the Family?" He thinks that the problem is insoluble; at all events, that jurisprudence has no answer for it. I agree that the origin of property is connected with the origin of the Family, or, as I have called it, the Household; and that, consequently, the explanation of the one sought to furnish the explanation of the other. But I venture to think that Sir Henry Maine underrates the resources of the science of which he is so distinguished a student, and that historical jurisprudence is not silent in the presence of this great problem. If Sir Henry Maine had not, in common with most English jurists, slighted the theory of ancestral worship, which M. De Coulanges had advocated with such power and clearness, he would not, I think, have so readily abandoned this part of his inquiry.

If it be true that the question as to the origin of property coincides with the question as to the origin of the Household, the answer that I must make to the former question is plain. As the Household depended upon the House Spirit, so the respect for another's property was due to the respect for the spirits that guarded that property. Of the institution of property, as well as of every other archaic institution, religion, as it was then understood, was the basis. I do not mean that property so depended upon Houseworship that when the latter failed the former must fail also. I only contend that the habit or sentiment of respect for property was generated by the system of the Household; and that it acquired under that system sufficient strength to stand alone when the originating force was withdrawn. In other words, property is a custom; in civilized States that custom has been adopted and enforced by law; and the origin of this custom thus legalized is House-worship.²⁶

In proof of this view Hearn offers copious evidence from ancient writers. The House Spirit guarded the property of the household and where that spirit did not reside the sentiment of property stopped. Things held by those without the community of worship did not enjoy such protection.

²⁶Hearn, Aryan Household, pp. 413-414.

At Rome, ownership in its modern form was developed. The tendency of the state was to enlarge its jurisdiction and, in respect to the problem under discussion, this growth proceeded in two directions. The old customary law recognized only inherited corporate property of Romans.

For the outsider in all cases, for the citizen in case of his acquisitions, there was no legal recognition. . . . Some provision for both these classes of persons arose which could by no pretence be brought within the limits of any custom then existing.

We can thus perceive the relation between the two systems of the law of property which co-existed at Rome. The elder system, or "Jus Civile," was the custom of the clans sanctioned by the State for the benefit of the people of Quirinus. The younger system, or "Jus Honorarium," was the law which, by the judicial officers of the State, was gradually established to regulate the acquired rights of Roman citizens, and the rights, whether acquired or inherited, of those residents at Rome who were not citizens. The former was contained in the Twelve Tables and in the Statutes, and in the learning affecting them. The latter was found in the Edicts of the Praetors, and sometimes of other high officials. The two systems were parallel and distinct. As to ownership, as to the mode of acquisition, as to remedy, as to conveyance, as to succession, as to contract, each had its own provisions. . . . Thus the two bodies of law, applying each to different subjects, continued to co-exist so long as the distinction between their subjects prevailed. But as the clan waned, the property of the clan became of less and less importance. New interests grew with the growth of the advancing community, and strangers constantly flocked in ever-increasing numbers to great and wealthy and conquering Rome. The simpler methods, too, of the edictal law were found to be more convenient than the rigorous formality of the archaic customs. And so, from all these causes, without any positive repeal, the "Jus Civile" died a natural though lingering death, and the law of the Praetors reigned in its stead.²⁷

There were thus three distinct trends. The things that could be property were increased. The class of people that

²⁷Ibid., pp. 419-421.

could be owners grew. And under the new law the individual's power of disposition was expanded. The history of property, therefore, has been largely a story of variation in the power of disposition. The liberty to use has always been present and that liberty has always been shielded by the right of exclusion. Archaic corporate property, like feudal property in land, passes into new hands without regard to the intent of the owner.

The theory of economic institutions developed here is realistic. The concepts are drawn from elements of the law and no thought has been given to peculiar economic doctrines or to abstract theories of justice. But the system described has certain properties which correspond to characteristics usually attributed to a "free society." With contract all positive duties are created consensually. With ownership the extent and limits of each man's liberty are defined. All transactions are mutually beneficial, at least in the judgment of the parties directly concerned. There is equal opportunity in the sense that all citizens enjoy legal powers; each can make, accept, or reject offers. And the practical significance of this grows as ownership grows. The ties that bind bind at both ends. Land that cannot be sold cannot be bought. If the product of labor cannot be sold, that labor cannot be hired. And one might mention that, in addition to these features which appeal to the moral instincts of Western Man, the system promotes the growth of national wealth.

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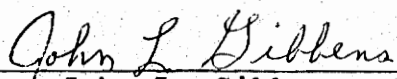
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VITA

John Lawrence Gibbens was born in Baton Rouge, Louisiana on July 17, 1941. For four generations before him, his family name had been prominent in the sugar industry. Mr. Gibbens has attended Louisiana State University, Tulane University, and Virginia Polytechnic Institute and State University. He was awarded the B.A. degree from Louisiana State in 1964. In 1972, he received the M.A. from Virginia Polytechnic Institute and State University, and in 1977 he completed all of the requirements for the Ph. D. at that same institution. Mr. Gibbens has been an assistant professor of economics and business at Marion College for the past three years. He had previously held the same position at Northwestern State University in Natchitoches, Louisiana. He had also been an assistant professor of philosophy and economics at Northwood Institute in Midland, Michigan. Mr. Gibbens lives with his son in Upland, Indiana, where he operates a small business.



John L. Gibbens

WILLIAM E. HEARN AND CLASSICAL
POLITICAL ECONOMY

by

John Lawrence Gibbens

(ABSTRACT)

This thesis is an evaluation of the work of the nineteenth century economist William Edward Hearn. Attention is given primarily to Hearn's Plutology: Or the Theory of Efforts to Satisfy Human Wants, but this is related to Hearn's work as a jurist and as a political theorist. The Plutology is also discussed in relation to prior and to subsequent work of others in economics.

In Chapter I, Hearn is introduced as a classical political economist in the "Smithian," as opposed to the "Ricardian," tradition. This distinction is explained, and the emergence of neoclassical or modern economics is discussed as a change in world-view. Modern economists, holding the neoclassical view, have had difficulty seeing merits of the "Smithian" approach.

In Chapter II, an account is given of Hearn's work and reputation. In his own lifetime, Hearn enjoyed an international reputation as an author. In addition to the work mentioned, he wrote The Government of England, The

Aryan Household, and The Theory of Legal Duties and Rights.

He was also chancellor of the University of Melbourne and served in the Victorian legislature.

The novel design of the Plutology is explained in Chapter III. Hearn's formula for economic activity, "Efforts to Satisfy Human Wants," supplied him with a conceptual scheme within which was found a logical place for the most notable doctrines of earlier economists. Also, Hearn's approach left him free of many doctrines now generally believed to be sterile or misleading.

A separate chapter is given to Hearn's views on specific topics which can be understood as contributions even by those whose sympathies lie with the modern orthodoxy. For example, though presented in a different language, Hearn's theory of the firm contains the substance of the theories on that topic advanced by modern writers such as Frank H. Knight and Ronald Coase.

In Chapter V, evidence is presented to support the contention that Hearn's Plutology influenced both Marshall's Principles and Jevons' Theory of Political Economy. Marshall was far more "Smithian" than is commonly believed. And although Jevons is known today as one of the fathers of the modern theory of value, his expressed admiration for Hearn, together with an examination of his theories of labor and of capital, suggests that an alternative interpretation of his work is in order.

Chapter VI is an expansion of the implications of Hearn's restatement of what might be called the "Smithian labor theory of value." The single-factor hypothesis is reconciled with modern views of production and distribution.

Chapter VII draws from Hearn's work in both analytical and historical jurisprudence for a theory of economic institutions. The principal element in Hearn's legal theory was "duty" rather than "right"; this might be compared to the emphasis, in classical economics, given "labor" rather than "satisfactions." Hearn's legal theory is useful to the modern economist with an interest in the questions raised by the "institutional economics."