

JOHN FAGG FOSTER'S CONTRIBUTION TO SCIENTIFIC INQUIRY.

edited by Baldwin RANSON
2010

TABLE OF CONTENTS

Introduction.		page	2.
1. Dissertation: "Theoretical Foundations of Government Ownership in a Capitalist Economy."	1946	page	4.
2. Lecture notes: "Value and its Determinants."	1948	page	84.
3. Manuscript fragment: "The Origins of the American Contribution." mid 1950s		page	163.
4. Lecture notes: "American Contributions to Economic Thought." 1974		page	182.
Frontiersmen Thomas Jefferson Thorstein Veblen John R. Commons Wesley Mitchell John Maurice Clark			
5. Lecture notes: Keynes and Underconsumption Business Cycle Theory.	1949	page	194.
6. Preface to Gordon Hayes, <u>Spending, Saving, and Employment</u> .	1945	page	205.
7. Lecture notes: "Comparative Economic Theories: Marshall & Keynes."	1969	page	207.
8. Occasional paper: "Free Will."		page	216.
9. Occasional paper: "Robinson Crusoe."		page	218.
10. Dictionary: Definitions used by John Fagg Foster.		page	220.
11. Syllabus: "The Social Process."	1947	page	226.
12. Syllabus: "The Problem of Value."	1949	page	233.
13. Commentary by editor: "Confronting Foster's wildest claim: Only the instrumental theory of value can be applied." 2008		page	241.

1. INTRODUCTION

This disc contains thirteen examples of John Fagg Foster's contribution to scientific inquiry. These old documents are made available in electronic format in 2010 because of the editor's conviction that no other scholars have recognized or dealt with the substance of that contribution.

The first example is Foster's dissertation, entitled "Theoretical Foundations of Government Ownership in a Capitalistic Economy." It was defended at the University of Texas in 1946.

The second contribution is lecture notes from his course "Value and its Determinants," recorded in 1948 and 1950. They were transcribed in 1989 by Dr. Gladys Foster, Fagg Foster's widow, from a tape recording by Harry Brown and from notes written by Marc Tool, two students who took this course. Dr. Foster chose to copy the notes verbatim. The present editor--a student of Foster's in the 1960s--has chosen to reword the oral presentation wherever he felt it was obscure in its original verbal form. He is convinced that Foster's argument must be more readable to continue being useful. All of the text that is not in Foster's own words has been put in italics, framed either by square brackets or quotation marks. Following Brown's recorded notes are fragments of notes taken by Marc Tool in the same course in 1950.

A brief excerpt from these lecture notes was published in the Journal of Economic Issues in December, 1991. The original notes and Dr. Foster's transcription are on file in the archives of Penrose Library, University of Denver. Other examples of Foster's analysis of value appear in more polished form in "John Dewey and Economic Value," (1942) and "The Relation Between the Theory of Value and Economic Analysis," (1948)--both published in the Journal of Economic Issues of December, 1981.

The third contribution is the lone chapter that has been found of an untitled and undated manuscript. Judging from references in the footnotes, it was written in the mid 1950s. It is predominantly historical, and therefore provides detailed examples of and evidence for the value theory presented in the second contribution, as well as for the American contributions to economic theory presented fourth.

The fourth example is lecture notes taken by Kenneth Powers in 1974 in Foster's course "American Contributions to Economic Thought."

Foster's analysis of the General Theory of Keynes was profound and original. Three examples are collected here. His paper "Understandings and Misunderstandings of Keynesian Economics" was published in the Journal of Economic Issues in December, 1981. Added to the present collection in 2010 is an excerpt from lecture notes Gladys Foster made in 1949 in Foster's course "Business Cycles," distinguishing Keynes's theory from the Classical and Underconsumption traditions.

The sixth example is the preface Foster proposed for a book published by Gordon Hayes--an American Underconsumptionist--in 1945. It contributes to understanding underconsumption theory, even though Hayes's book appeared without a preface.

The seventh contribution is notes taken by Gladys Foster in 1969 in the course "Comparative Economic Theories." It applies Foster's analysis extensively in comparison and evaluation of the theories of Marshall and Keynes.

Contributions eight and nine are brief undated occasional papers applying Foster's analysis to two fundamental issues. Another such paper, "The Lecture Method," was published in The Review of Institutional Thought of December 1986.

The tenth section is a collection of definitions of key terms developed by Foster for semantic clarity in social analysis.

The last three entries are not in Foster's words. The two syllabi were written at the University of Denver for the course "Problems of Modern Society." That general education course was developed by many professors from many disciplines shortly after the end of the World War II. The only part of that collection of syllabi known to have been exclusively written by Foster is "The Theory of Institutional Adjustment," (1948) published in the Journal of Economic Issues of December, 1981. The two parts included here--"The Social Process" (1947) and "The Problem of Value" (1949)--were probably written by committees, but clearly reveal the influence of Foster's pattern of analysis.

The final entry is the paper delivered by the editor at the 2008 meeting of the Association for Evolutionary Economics, clarifying and defending Foster's analysis of value theory.

Further clarification of Foster's contribution can be found in Marc Tool, Value Theory and Economic Progress. The Institutional Economics of J. Fagg Foster. Boston:Kluwer Academic Publishers, 2000.

This collection of contributions is posted on the web site of the University of Missouri-Kansas City under the caption of readings: cas.umkc.edu/econ/Institutional/Index.htm

Please report formatting or spelling errors to beranson22@q.com.

BALDWIN RANSON

THEORETICAL FOUNDATIONS OF GOVERNMENT
OWNERSHIP IN A CAPITALISTIC ECONOMY

DISSERTATION

Presented to the Faculty of the Graduate School of
The University of Texas in Partial Fulfillment
of the Requirements

For the Degree of

Doctor of Philosophy

By

John Fagg Foster, B. S., M. Ed.

Austin, Texas

August, 1946

PREFACE

Someone has remarked that one of the most dangerous things a people can do is to talk one way and act another. I think that this dictum is true in the sense that in so far as a people does not understand what it is doing, it is apt to make mistakes. The peoples of the capitalistic economies always have condoned the government ownership of some enterprises, and at the same time they have talked generally as if government ownership were bad in itself.

There is a parallel situation in economic theory. So far as I know, almost all economists who have had occasion to discuss the matter have approved government ownership for some enterprises and disapproved it for others. And at the same time they have set forth a general theory which would seem to say that government ownership, as a category, is uneconomic. I have thought for some time that an inquiry into the problem of government ownership in a capitalistic economy not only should reveal something further in regard to the forces at play in a problem which the peoples of capitalistic nations have faced repeatedly but also should throw some light on the validity of the general theories as such.

I wish to acknowledge the consideration and attention which every member of the Graduate Faculty of the Department of Economics of The University of Texas has given me in the course of my studies which have played a great part in my thinking on this problem. Especially, I wish to thank Professors C. E. Ayres and R. H. Montgomery under whose direction I have made this study.

J.F.F.

Austin, Texas
17 June, 1946

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.....	6
Delimitation of the Study.....	7
Organization of the Study.....	8
II. THE CLASSICAL THEORY AND GOVERNMENT OWNERSHIP.....	9
The Wealth of Nations.....	10
The Theory of Distribution.....	16
Utility and Cost.....	19
Refinement and Application.....	23
Marginal Utility.....	28
Synthesis.....	30
The Classical Theory and the Principle of Government Ownership.....	34
III. HETERODOX THEORY AND GOVERNMENT OWNERSHIP.....	37
The Underconsumption Analysis.....	37
Institutionalists.....	42
IV. THE CONTEMPORARY COMPLEX.....	48
V. EXAMPLES OF GOVERNMENT OWNERSHIP IN THE UNITED STATES.....	56
Classification of the Principles.....	56
The Principles and the Run of the Facts.....	58
Pattern.....	75
VI. CONCLUSION.....	77
The Classical Theory as the Basis of Analysis.....	77
The Underconsumption Theory as the Basis of Analysis.....	78
The Institutional Theory as the Basis of Analysis.....	78
Pattern and Process.....	79
BIBLIOGRAPHY.....	80

NOTE: In the text below, pagination of the original dissertation is recorded in brackets [].

CHAPTER I

INTRODUCTION

Throughout the development of modern capitalism, some economic enterprise has been government-owned. That is to say, in providing the means of life and experience, some of the items involved in the process have been owned and some of the processes have been carried on directly by bodies politic through their duly organized governments.

When capitalistic organization began to take recognizable shape as the general pattern of the economy, some economic enterprises already were established as government functions. And some of these enterprises have remained under government ownership while others have been shifted to private ownership. At the same time, economic enterprises which were currently owned and operated by private persons and firms have been shifted to public ownership; and some of these same enterprises have been shifted back again to private ownership. On each such occasion the problem of government ownership in a capitalistic economy has arisen anew. The problem has been a perennial one.

Not only have governments always owned and operated some economic enterprises, but this situation, as such, has never been regarded by economists as being incompatible with proper economic arrangement. No economist ever has taken the position that absolutely no economic enterprise should be government-owned [2] although the theoretical formulations of some economists might seem to dictate that position. From *The Wealth of Nations* through the whole of contemporary theory, allowance is made for the government ownership of certain economic enterprises. In the main body of theoretical development, as will be seen, this allowance has been treated more as a side issue or afterthought or even as a non-economic consideration than as an integral part of the main body of general economic theory. But the allowance always has been made.

Since the problem has recurred constantly and since the general principles of economic theory are presumed by people generally to give some logical basis for policy in regard to economic problems, recourse to economic theory has been taken by both proponents and opponents each time the problem has arisen, either in its inclusive form or in its specific application to an individual enterprise. The continued irresolution of this perennial problem, even among professional students of economics, prompted the present writer to examine the general principles of economic theory to see whether they offer any logical basis for solving the problem as it presents itself in a capitalistic economy. A reexamination on this score seems to be warranted by the importance of the problem and by the claim to generality on the part of the basic economic principles.

Although agreement is unanimous on the bare proposition that government ownership has a necessary and proper place in capitalistic economies, great diversity of opinion usually appears [3] when the alternative patterns of the ownership of a particular enterprise are brought into question.

Then the pertinent question becomes: What are the differences between the enterprises upon which there is disagreement? Are the differences purely "political," or are there economic factors antecedent to the immediate political operations that specify the pattern of ownership? If there are antecedent economic factors, do they have any recognizable pattern? And if there is a visible pattern, what is the impellent relationship between the economic factors and the political factors?

Manifestly, all of the data related to these questions cannot be considered within the limitations necessarily imposed on the present study. It is necessary therefore to select the available area of data that promises to be most remunerative in displaying evidences on the question. The area selected for the present study is composed of six enterprises which have become government-owned in the United States.

An examination of these data should be useful in furthering a positive solution of the problem of government ownership; for, if there is pattern to whatever differences are found to exist between enterprises which have become government-owned and enterprises which have remained privately owned, a theory of government ownership in capitalistic economy may be indicated. An inquiry into such differences may serve also as a referential check for economic theory in terms of general applicability.

[4] The present study, then, seeks an answer to the following question: What are the determinants of government ownership in a capitalistic economy?

Delimitations of the Study

It may be noted that the question for this study is framed so as to exclude the question of alternative economic systems. The study is not concerned with one economic system versus another for the entire economy. Rather, it is concerned with what determines a particular pattern of ownership for particular enterprises in a system in which there are numerous patterns of ownership and in which those patterns are changing. This is not to say that the study disregards the consequences to the remainder of the economy of the private or government ownership of a particular enterprise. Quite the contrary. The interdependence of the economy, especially the American economy, precludes the consequences of changing the pattern of ownership in one enterprise being restricted to that enterprise. But, again, this does not involve the question of alternative systems for the entire economy. If the problem in fact concerned alternative inclusive systems, then the problem under consideration in this study could not exist at all.

Restricting the study to the determinants of government ownership has several advantages. It avoids many complexities of the various ownership patterns which are constantly changing [5] and which overlap at many points. And, at the same time, it may serve as a case study in the general problem of ownership pattern. Ownership, as an institution, has developed so many variations that even to describe them in much detail would be beyond the possibilities of a single study. Of all the types of ownership the government-ownership category is probably the most nearly specific and definite. It denotes complete and exclusive legal control. Some degree of legal control is connected in any pattern of ownership but in no instance is it complete except when vested in a sovereign government.

Six enterprises are included in the present study. Their selection is based on the following criteria: (1) that they are clearly government-owned, (2) that data concerning them are available, and (3) that they represent as divergent physical processes as possible. Attention is focused on data which are common to all or most of the enterprises selected under the three listed criteria, and these data are considered in terms of any sort of pattern which they may present.

Organization of the Study

The organization of the study follows directly from what has been said in orientation.

First, the main developments of economic theory are explored in terms of applicability to the problem at hand. Particular attention is paid to the consideration given directly [6] to the problem by the major spokesmen of the various systems of economic theory, and their pronouncements on the problem are examined in view of the general theoretical systems for which they speak. The major theoretical patterns are organized under the following headings: (1) the classical development, (2) the underconsumption analysis, (3) the institutionalists, and (4) the contemporary complex.

The development following the lead of W. S. Jevons' innovation in value theory frequently is classified separately from the classical doctrine proper. This utility-based system of analysis usually has been called neo-classicism. In the present study, the neo-classical analysis is included under the first heading, the classical development. The reasons for this inclusion will become apparent in the context of the discussion.

The recent resurgence of the underconsumption theory requires that it be given consideration. This theory enters directly and indirectly into much of contemporary analysis. It has served directly as the basis for some government fiscal policy which has, in turn, had effects on the problem of government ownership. And some of its tenets enter importantly into analyses which cannot properly be classified as underconsumptionist. This is true especially of the general theory of the level of employment which has gained wide credence since 1936 and which has brought into fresh focus the whole problem of possible alternative control organization of wide areas of economic enterprise.

[7] The "institutionalists" are designated as a separate category in this study. They are given separate designation, not to identify a "complete" economic theory, but rather to allow facile reference for concepts that are pertinent to the present study. There is, as yet, no detailed, and certainly no complete pattern of analysis that may be said to be held in common by the theorists who are usually referred to as institutionalists. But this is not to say that there is, in this instance, no real basis for separate designation. Nor is it to say that, since there is not here a "complete" general theory, application to the problem at hand is inadvisable. On the contrary, the basic theoretical position of the founder of this "school" and the advancements that have been developed from that position are particularly significant to the working-out of the kind of economic problem under consideration in this study.

The contemporary complex of economic theory is such that classification of particular theories under the previous headings is not easy. Some contemporary formulations are clearly identifiable as specific continuations of a particular, inherited doctrine. But many of them evidence a mixed parentage. And some contemporary developments are so original in structure and content that they give strong promise of initiating separately identified schools of economic thought. Under the heading "the contemporary complex" an effort is made to identify specific continuations of the particular theoretical systems which already have been classified, and these continuations are considered in relation to [8] the problem of government ownership. The unclassified developments are searched for possibilities of the same application.

After economic theory is explored in the order outlined above, the study proceeds to the examination of a selected group of government-owned enterprises. These are (1) streets and highways, (2) harbors and waterways, (3) waterworks and sewage disposal, (4) schools, (5) forestry, and (6) housing. These enterprises are very diverse in terms of the physical processes involved. The choice on this score is deliberate. In any event, a representative sample of government owned enterprises would necessarily include widely differing sorts of equipment and functions. The fact of diversity is therefore an important datum in itself. The sample is chosen so as to maintain fidelity with its universe in this regard.

It has been mentioned that the reason for examining these government-owned enterprises is to try to find pattern in the relevant data. Patterns of some sort should be

suggested by the general theoretical systems and by the specific pronouncements on the problem by the spokesmen for those systems. The principles thus suggested should be kept in mind while considering the specific cases of government-ownership.

It should be remembered that the present study is a search for the general principles that are applicable to all cases of government ownership. An effort is made, therefore, to find an organizational pattern that includes all of the facts brought out in the study of actual cases of government ownership. [9] Beyond this, some consideration is given to whatever indications the present study offers regarding the character of general economic theory.

THE CLASSICAL THEORY AND GOVERNMENT OWNERSHIP

It has been pointed out that governments always have owned and operated some economic enterprises. This situation presented no general theoretical problem until the advent of a general economic theory which seemed, at least on its face, to dictate the general policy of laissez faire. But after the advent of such a theory, the acceptance of any government ownership presented something of a problem in theory. And the unanimous acceptance of the government ownership of some economic enterprise presented a dilemma.

On the one hand, here were what purported to be the basic general principles of economic theory. Here also was the inescapable pattern of the interworkings of those principles. The assertions of generality and of foundation involved the claim that the principles were in some manner expressive of the inclusive and the continuing factors which determine the on-going of the economic process. And that pattern of the interworkings of the general principles, that general theory, seemed to spell out in unmistakable finality not only the propriety of laissez faire but also the inescapable and actual driving effect of the basic economic forces in that direction. The classical system of analysis will be seen, at least in its [11] earlier stages, to involve that pattern of theory.

On the other hand, here were the palpable facts that government ownership did exist and had always existed and that everyone, including the classical theorists, sanctioned the government ownership of some economic enterprise.

These two sets of circumstances presented the dilemma: how account for government ownership of economic enterprise, either in terms of proper policy or in terms of actuality, in view of a general theory which seemed to dictate the absolute contrary in policy and the contrary tendency in fact?

This dilemma could be disregarded. But it conceivably could be resolved in only three ways: (1) the position could be taken that government ownership of any economic enterprise must be at the expense of the general efficiency of the economic process and that, therefore, no economic enterprise should be government owned;¹ (2) the theoretical formulation's claim to generality and to foundation could be abandoned and replaced with the restricted claim of applicability to non-government-owned enterprise only;² and (3) the general theory itself could be modified in whatever manner and degree necessary to include the principles that determine government ownership.³

[12] In the following discussion, the part played by each of these three alternatives will be considered in terms of its involvement in the relation between specific analyses of government ownership and the major developments in the body of general theory.

The Wealth of Nations

The development of the classical theory was the first widely recognized effort to make an inclusive and a coherent analysis of the economic process, to "lay bare the principles which

¹ No economist has ever taken this position although some of them have altogether disregarded the problem.

² The implications to general economic theory of this position are considered in Chapter VI below.

³ This alternative holds true both in the consideration of "what ought to be" and in consideration of "what is." The former, because of the universal and unanimous acceptance of government ownership as such; the latter, because of the universal and continuous existence of the fact of government ownership.

underlie the working⁴ of the economy. It was thus the first to give explicit recognition to the notion that social phenomena are subject to scientific inquiry.⁵ In this line of development, the first statement which could lay reasonable claim to presenting this inclusive analysis was An Inquiry into the Nature and Causes of the Wealth of Nations by Adam Smith.

Adam Smith's analysis, published in 1776, "was destined to be regarded as the fons et origo of economic thought by many subsequent generations."⁶ His considerations furnished the [13] substance for and served as the immediate parent of the main body of the classical analysis. For this, Adam Smith has been called the father of economics. But this is not the sole evidence of his fertility. Many of his formulations have found ready use in heterodox theory,⁷ and in some instances he indicated the key to the disproof and consequent abandonment of some items which he, at the same time, made integral parts of the classical theory.⁸ Adam Smith's contributions have entered every school of economic thought. His place in the development of the science is preeminent.

The characteristics of Smith's treatment which have permitted its influence on so many different systems of analysis are the very characteristics which cause difficulty in any effort to outline the internal structure of its economic analysis. It is inconsistent in detail, and its inconsistencies frequently seem to arise from shifts in the meanings of words. Although some shifts are explicit and stated, the reader frequently cannot determine just which referent Smith had in mind. But the general structure of the theory and the relation between [14] that theory and the problem at hand are clear enough.

The outline which follows does not have the organizational order used by Adam Smith. It is arranged to give the content and sequence that brings into sharpest focus the structure of Smith's theory as it may apply to the problem of the present study. Only the barest central content is used, and some aspects of his theory are not even mentioned. Smith made many digressions and used extensive corroborative material that need not concern the present study.

The Wealth of Nations is divided into five books:⁹ (1) of the Causes of Improvement in the productive Powers of Labour, and of the Order according to which its Produce is naturally distributed among the different Ranks of the People; (2) of the Nature, Accumulation, and Employment of Stock; (3) of the different Progress of Opulence in different Nations; (4) of Systems of political Economy; (5) of the Revenue of the Sovereign or Commonwealth.

In these five books, Smith tried to throw light on what constitutes the general welfare and on how the general welfare may be maximized. He identified the general welfare with "wealth" by which he meant the rate of real income, the annual per-capita production, or "all the necessaries and conveniences [15] of life which it (the nation) annually consumes."¹⁰

⁴ Erich Roll, A History of Economic Thought, Prentice-Hall, Inc., New York, 1939, p. 142.

⁵ Loc. cit.

⁶ Ibid., p. 140.

⁷ Some of these uses will appear in the discussions of the underconsumption, institutional, and contemporary analyses.

⁸ Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations, The Modern Library, New York, 1937, pp. 321-322. In this example, the wages fund is prescribed, and then it is pointed out that neither money nor wage goods are really accumulated. Another example (p. 65) is his designation of profits and rent as "deductions" from the production of labor.

⁹ Adam Smith, op. cit., "Contents."

¹⁰ Ibid., pp. lvii, lx, 238, 241, 321, 419. Smith sometimes uses "wealth" to mean accumulated goods, e.g. p. 330.

Explaining how the annual per-capita income is and may be maximized is the central content of the entire treatment.

Some students dissociate Smith's treatment of "what is" from his treatment of "what ought to be." But Smith himself made no such dissociation. He was considering the same central problem throughout. And that problem involved not only the principles governing the material provision of the "necessaries and conveniences of life" but also how to arrange policy so as to promote the most efficient operation of that process. For Smith, proper economic policy was a necessary disclosure of, and part of, understanding the inclusive principles of the economic process.

The first two books of Smith's treatment are an explanation of his general theory. The introductory statement begins by identifying labor as

... the fund which originally supplies it (the nation) with all the necessaries and conveniences of life which it annually consumes, and which consists always either in the immediate produce of that labour, or in what is purchased with that produce from other nations.¹¹

Then, since labor is the original source of all wealth, the question becomes: what determines the produce of labor, or, what determines the general efficiency of the use of the [16] fund of labor? To this question Smith answers:

But this proportion (ratio between population and aggregate consumers' production) must in every nation be regulated by two different circumstances; first, by the skill, dexterity and judgment with which its labour is generally applied; and, secondly, by the proportion between the number of those who are employed in useful labor, and that of those who are not so employed.¹²

The total produce of any nation obviously depends on the product of each unit of labor (the productive factor) and the number of units of productive labor. The next step, then, is to find (1) the determinants of the efficiency of each unit of productively employed labor and (2) the determinants of the number of such units.

The first factor, Smith decided, depends on the degree of the division of labor¹³ which, in turn, springs from "the propensity to truck, barter, and exchange one thing for another."¹⁴ But this increase in the efficiency of labor, even though it "is in consequence of" the division of labor, "is owing to" (1) increased skill because of the reduced number of operations per worker, (2) the saving of time by concentrating on one operation, and (3) "the invention of a great number of machines which facilitate and abridge labour."¹⁵ The limiting [17] factors to an increase in the division of labor (and therefore in efficiency) are (1) the maintenance of an equal stock of provision, (2) the accumulation of a greater stock of materials and tools,¹⁶ and (3) the size of the

¹¹ Ibid., p. lvii.

¹² Loc. cit.

¹³ Ibid., p. 3.

¹⁴ Ibid., p. 13.

¹⁵ Ibid., pp. 7-10.

¹⁶ Ibid., p. 260.

market. The latter depends on the perfection of transportation facilities and the density of population.¹⁷

The second factor, the portion of the population engaged in productive employment, is found by Smith to be determined by the amount of accumulated stock. The quantity of accumulated stock is not only a factor in determining the degree to which labor specialization may be carried, it is also that which sets labor in motion. It constitutes the demand for labor. It is that with which labor works, and its quantity is therefore the major determinant of how large a portion of the population may be engaged in productive employment.¹⁸ Smith considers labor non-productive if it is engaged in the direct satisfaction of wants. It is productive only if it is engaged in the creation of that which enters the accumulated stock which, in turn, serves as the support of labor and as tools which labor uses in further production. Smith observes that, in the current [18] state of affairs, since most non-productive labor is purchased out of rent and profits, the ratio between the sum of rent and profits and the expenditures for replacing capital will reflect the proportion of the population engaged in non-productive employment.¹⁹

Now, since the accumulation of stock sets the limits to which labor may be specialized and since it determines how great a proportion of the population is engaged in productive employment, the next logical step is to find the determinants of the accumulation of stock.

Smith finds that the accumulation is founded in the self-love instinct and in that instinct's combination with foresight which results in parsimony or frugality.²⁰

Improved exercise of these basic instincts is allowed through the "propensity to truck, barter, and exchange one thing for another." For,

As soon as stock has accumulated in the hands of particular persons, some of them will naturally employ it in setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work, or by what their labour adds to the value of the materials.²¹

[19] The reason for allowing the increased produce to become the property of any particular person is that

He could have no interest to employ them, unless he expected from the sale of their work, something more than was sufficient to replace his stock to him; and he could have no interest to employ a great stock rather than a small one, unless his profits were to bear some proportion to the extent of his stock.²²

Thus Smith finds that both private property and profits are not only founded in human nature but also are necessary to the accumulation of stock without which there could be no improvement in the wealth of the community beyond the very lowest primitive stages.

Then, since those who hold accumulated stock could have no interest to employ a greater stock unless thereby they be permitted to increase it, a necessary phase of the analysis

¹⁷ Ibid., Bk. I, Ch. III.

¹⁸ Ibid., Bk. II, Ch. III, but particularly p. 319.

¹⁹ Ibid., 317.

²⁰ Ibid., pp. 321, 322, 324.

²¹ Ibid., p. 48.

²² Loc. cit.

is to determine how that particular employment of stock is brought about. Smith finds that it is brought about through the operations of the market. Since the wealth of the nation depends upon the accumulation of stock and since the accumulation of stock depends upon exchanging commodities, everything depends in large measure upon the efficiency of the market process. The market's driving force is the desire for gain, and its controlling factor is competition. Men offer their produce in the market in the hope of getting for it something offering greater advantage to them than the retention of their own produce. [20] But the receivers of their goods are doing the same thing and so no exchange is effected until both are satisfied, however reluctantly, on this score. The market not only offers exercise to the desire for gain, it also brings commodities into common view. The purchaser may choose to his best advantage. Then the only way an individual can increase his chances of gain is to submit better items or to increase the efficiency of the production of those items, and the only way he can increase his total receipts is to increase his production. Competition and the desire for gain force the maximum efficiency in terms of quantity and quality of commodities. Then anything that interferes with the profit motive or with competition interferes with the efficiency of the exchange process upon which the whole economic process depends.

Smith's analyses of money and price change none of this.²³ Money enters only because of the difficulties of extensive, direct barter. It serves only to account the real operations which are greatly expanded because of its use. Money serves merely as the "great wheel of circulation."²⁴

Thus Smith can argue that good management "can never be universally established but in consequence of that free and universal competition which forces everybody to have [21] recourse to it for the sake of self-defense."²⁵ And it is on grounds like these that he concludes, after applying his analysis to the economic progress of different nations and systems:

It is thus that every system which endeavours, either, by extraordinary encouragements, to draw towards a particular species of industry a greater share of the capital of the society than what would naturally go to it; or, by extraordinary restraints, to force from a particular species of industry some share of the capital which would otherwise be employed in it; is in reality subversive of the great purpose which it means to promote. It retards, instead of accelerating, the progress of the society towards real wealth and greatness; and diminishes, instead of increasing, the real value of the annual produce of its land and labour.

All systems of preference or of restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberties establishes itself of its own accord.

.....
The sovereign is completely discharged from a duty, in the attempting to perform which he must always be exposed to innumerable delusions, and for the proper performance of which no human wisdom or knowledge could ever be sufficient; the duty of superintending the industry of private people, and of directing it towards the employments more suitable to the interest of the society. According to the system of natural liberty, the sovereign has only three duties to attend to; three duties of great importance, indeed, but plain and intelligible to common understanding: first, the duty of protecting the society from the violence and invasion of other independent societies; secondly, the duty of

²³ *Ibid.*, Bks. I and II.

²⁴ *Ibid.*, pp. 273, 276, 280.

²⁵ *Ibid.*, p. 147.

protecting, as far as possible, every member of the society from the injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice; and, thirdly, the duty of erecting and maintaining certain public works and certain public institutions, which it can never be for the interest of any individual, or small number of individuals, to erect and maintain; because the profit could never repay the expense to any individual or small number of individuals, though it may frequently [22] do much more than repay it to a great society.²⁶

In the above quotation, Smith states both his laissez faire²⁷ conclusion, and his principle of government ownership. He does not state how, or whether, that principle is derived from his general economic theory.

It will be remembered that Adam Smith's general theory involves the propositions: (1) that the productive process depends on the accumulation of the physical means of supporting labor and the accumulation of the physical equipment used by productively employed labor, and (2) that this accumulation can be carried forward only by exchange which is motivated by profit and regulated by competition. For, even though the individual seeks to employ his capital to his own advantage, the forces of the market necessarily lead him "to prefer that employment which is most advantageous to the society."²⁸ And, therefore,

The statesman, who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would nowhere be so dangerous as in the hands of a man who [23] had folly and presumption enough to fancy himself fit to exercise it.²⁹

Then, since all capitals originally were necessarily those of "private people,"³⁰ it follows that the employment of any capitals "can be trusted, not only to no single person (government agent), but to no council or senate whatever."

In view of this theoretical position, it would seem, off hand, that no allowance could be made for the government ownership of any economic enterprise. But Smith explicitly makes such an allowance on the basis that some enterprises "may frequently do much more than repay" their expense to the economy but can "never repay the expense to any individual or small number of individuals." Here, there are economic enterprises which are determined, and Smith thought properly so, by some other devices than the free market process. Here, there are allocations of capital, stocks of provisions and equipment, which are motivated, and properly so, by some other tenet than that the returns from sales "be sufficient to replace (the) stock."³¹ Here, indeed, are enterprises which violate every determinant of how all economic enterprise comes into existence. It would seem that such enterprises not only should not exist, but also that they could not exist. It is certain, on the basis [24] of Smith's general theory, that stocks so

²⁶ Ibid., pp. 650-651.

²⁷ Adam Smith does not use the term.

²⁸ Ibid., p. 421.

²⁹ Ibid., p. 491.

³⁰ Ibid., p. 47-48.

³¹ Ibid., p. 48.

used could not return “much more” to the economy’s accumulated stock than they withdraw from it. Clearly, Smith was involved in the dilemma indicated at the beginning of this chapter.³²

It is in order, then, to examine his pronouncements on specific government-owned enterprises to see which, if any, of the three possible alternatives³³ he pursued in reconciling the contradiction.

The government-owned enterprises which are of interest in the present study are, in Smith’s words, “chiefly those for facilitating the commerce of the society, and those for promoting the instruction of the people.”³⁴

Smith began by stating that government-owned enterprises which facilitate commerce, “such as good roads, bridges, navigable canals, harbours, &c.”³⁵ must increase with the general economic development of the society. He proceeded by pointing out that such enterprises can be supported by charges levied against those who directly receive the service or commodity and that thereby no burden is necessarily imposed on [25] the general revenue. He pointed out also that some such enterprises (e.g., coinage and post-offices) can thus gain a return sufficient for defraying their own expense and thus satisfy his principle that they return to the society more than their own expense. In the matter of charges for service, Smith was willing to deviate from the cost-of-service principle in order to have

... the indolence and vanity of the rich ... contribute in a very easy manner to the relief of the poor, by rendering cheaper the transportation of heavy goods to all the different parts of the country.³⁶

Smith was concerned primarily with tax policy and administrative policy in relation to public enterprise. He pointed out that many governmental agencies have their origin in commercial enterprise, and he urged that they be carried on by the executive rather than granted to companies of merchants. He held this view even in those cases in which the agency is for the protection of a particular branch of trade because “the protection of any particular branch of trade is a part of the general protection of trade.”³⁷ But he did not follow this through to the other aspects of particular trades which require a larger capital than can be provided by private partnership and where the risk, or whatever, is such that no expectancy of profit could be held without monopoly privilege. For these, [26] Smith was prepared to grant a temporary monopoly “to recompense them for hazarding a dangerous and expensive experiment, of which the public is afterwards to reap the benefit.”³⁸ In this instance, Smith seems to have abandoned his principle of government ownership. But even here, the abandonment is not in terms that follow from his general theory.

Smith realized that the joint-stock-company technique of organizing an enterprise does some violence to his general theory. He concluded however that such organization, without a granted monopoly, can work out in only four enterprises: banking, insurance, canals, and

³² See p. 14 above.

³³ Loc. cit.

³⁴ Cf., p. 14 above.

³⁵ Adam Smith, op. cit., p. 682.

³⁶ Ibid., p. 686-687.

³⁷ Ibid., p. 691.

³⁸ Ibid., p. 712.

waterworks. The reason it can work out in those four instances is that the processes in each of them can be “reduced to strict rules.”³⁹ Smith did not work out the possible connection between the principles underlying what he considered the proper joint-stock-company enterprises and his principles of government ownership although he did discuss them in the same chapter. The two are grouped together in recognition that both are non-private in the sense upon which his general theory is founded.

Smith considered education from the same standpoint that he considered aids to commerce. He concluded that the closer education is kept to the competitive level, the more efficient it becomes. However, he thought that it could not be left to [27] private enterprise because the forces of the market would result in people entering productive employment at such an early age that they could not render their full possible complement to the economy.⁴⁰ On this point, it is not only the early age of employment and consequent lack of schooling that is concerned, there is also the deadening effect of the specialization of modern labor which precludes the diversity of activity that Smith considered the key to the high intellectual attainment of previous cultures.

In all of this there is no clue to how it was that Smith reconciled his principle of government ownership with his general theory. In none of his statements on particular government-owned enterprises is it even mentioned that there is disrapport between the two. He pursued none of the three possible alternatives. The present writer is persuaded that Smith was unaware of any such problem.

The Theory of Distribution

Of all the theoretical developments to which The Wealth of Nations was germinal, that which was to receive the widest credence converged on the theory of distribution.

After the appearance of The Wealth of Nations, there occurred three theoretical developments which were to furnish [28] some of the distinguishing characteristics of the next general formulation of economic theory. Thomas Robert Malthus first published his theory of population in 1798. Its central thesis was that population naturally and inevitably increased more rapidly than the means of subsistence. He elaborated the thesis and modified it somewhat in a book on the subject published in 1803.⁴¹ In the latter publication he withdrew the inevitability aspect, but the central thesis that population tends always to press on the means of subsistence remained to be incorporated in an important way into the classical doctrine. The other of the two developments was the theory of diminishing returns in agriculture. The idea that additional quantities of capital and labor applied to a given land area will yield smaller returns than the previous application is implicit in the differential rent theory presented by Adam Smith⁴² in 1776 and specifically stated the next year by James Anderson.⁴³

³⁹ Ibid., pp. 713-716.

⁴⁰ Ibid., pp. 716-740.

⁴¹ Erich Roll, op. cit., p. 193.

⁴² Adam Smith, op. cit., pp. 146-47.

⁴³ Lewis H. Haney, History of Economic Thought, The Macmillan Company, New Your, 1936, pp. 292-293.

It was presented as a universal law by Edward West in 1815,⁴⁴ but it remained for David Ricardo to extend the principle and to [29] incorporate it into the body of general theory.

A third development between Adam Smith and Ricardo that entered importantly into the latter's formulation was the dictum that supply creates its own demand and that the aggregate supply and demand therefore are always equal. This is attributed by Ricardo to Jean-Baptiste Say.⁴⁵ But even without outside contribution it would necessarily evolve out of Ricardo's organization of his own theory.

These elements, together with a consistent and unified theory of valuation were used by David Ricardo to make a narrower and somewhat new formulation of the general principles. Ricardo himself did not consider directly the problem of government ownership. He therefore was not directly confronted with the problem which is the principle concern of this study. The organization of his theory is treated here very summarily only to indicate the basic theory from which later theorists worked in the classical line of development.

Many students have emphasized that Ricardo thought economics properly should be concerned with the laws determining the distribution of the aggregate income among the "three classes of the community," land owners, capitalists, and laborers. He says in the preface to his Principles that "To determine the laws which regulate this distribution is the principal problem [30] in Political Economy," and in a letter to Malthus he goes so far as to say that economics should be called "an inquiry into the laws which determine the divisions of the produce of industry amongst the classes who concur in its formation."⁴⁶ However, this is not necessarily to say that Ricardo claimed the purpose of the economic process was to divide income so as to maximize the benefits for any particular class. Whatever may have been his predilections on this score, he still considered that "to procure these gratifications ('the conveniences and ornaments of life') in the greatest abundance is the object in view."⁴⁷ His concern was with finding the dynamics of the "simple and obvious system of natural liberties" which he assumed to be the entire economy. For, since the "produce of the earth--all that is derived from its surface" is divided among the three classes differently in the "different stages of society," if the determinants of that division could be correctly perceived, the dynamics of economic development would stand in view.

Ricardo began with the theory of value which he considered simply and always "embodied" labor. He refuses to follow Smith's abandonment of the quantity-of-labor theory in accounting for non-labor incomes. His position is, in effect, [31] that Smith's labor-command theory is properly mere extension of the labor-cost theory into more advanced stages of the economy. For example, in referring to Smith's famous beaver-and-deer example, Ricardo pointed out that the labor required to provide the hunting instruments would necessarily enter into the determination of the exchange-value of the game.⁴⁸

And it is here that his validification of returns to capital is founded in labor itself:

All the implements necessary to kill the beaver and deer might belong to one class of men, and the labour employed in their destruction might be furnished

⁴⁴ Edward West, Essay on the Application of Capital to Land with Observations Showing the Impolicy of Any Great Restrictions of the Importations of Corn (Edited by J. H. Hollander), The John Hopkins Press, Baltimore, 1903.

⁴⁵ David Ricardo, The Principles of Political Economy and Taxation, (Everyman's Library Edition) E.P. Dutton and Company, Inc., New York, 1911, p. 192.

⁴⁶ Quoted by Erich Roll, op. cit., p. 178.

⁴⁷ David Ricardo, Principles, p. 195.

⁴⁸ Ibid., p. 13-14.

by another class; still, their comparative prices would be in proportion to the actual labour bestowed, both on the formation of the capital and on the destruction of the animals.⁴⁹

Capital then is expended, like anything else, in exchange for equal quantities of embodied labor. But this does not solve the problem of surplus value, or profit. If equal labor incorporated into capital equipment exchanged for equal labor in the items secured to replace it, how could capital equipment ever be increased?⁵⁰ Subsequently, attempts have been made to resolve this dilemma by allowing the value of labor to vary (as Ricardo himself allowed it to vary) over time and between countries and thus to permit the present exchange-value of labor incorporated in capital equipment produced in the past or in [32] another country to exceed the exchange value of labor currently incorporated in its replacement.⁵¹ This would work out through the differences in the degree of durability of capital assets which introduce deviations from the labor-cost determination of exchange-value. But, even here, the deviation would be occasioned by the necessity to include profits on the more durable asset over a longer period. This would return the problem to where it started.⁵² But Ricardo's primary concern was with what determines the proportionate incomes of the economic classes, and so by assuming profits he managed to disregard the violence done to his labor-cost theory of wages by the implied explanation of surplus value. Thus, for his purposes, assumption was more acceptable than explanation.

Wages, in the Ricardian analysis, are determined by the labor-cost of the maintenance and replacement of labor, the quantity of labor required to provide the sustenance of labor. Wages, therefore, depend on the marginal productivity of labor in agriculture. Therefore, since real wages per capita remain constant because of the Malthusian law of population, the portion of the total "produce of the earth" that goes for wages depends on how far the margin is extended in agriculture.

Ricardo defined rent as "that portion of the produce of the earth which is paid to the landlord for the use of the [33] original and indestructible powers of the soil."⁵³ It, as such, has no labor cost and is therefore not determinable in the open market process, and it cannot enter into price. It is determined by the differential in the natural productivity of different tracts of land. As more and more land is brought into cultivation, the difference in fertility, and other advantages, of different tracts of land increases. The portion of aggregate income that goes to landlords is determined by the degree of extension of the margin in agriculture.

All economic classes, according to Ricardo, receive incomes which, as portions of the aggregate income, are determined by the extension of the margin in agriculture. The portion received by laborers and that received by landlords increase as the margin is extended; the portion received by capitalists decreases on the same count. But neither profits nor wages contribute anything to rents⁵⁴ by virtue of an extension of the margin. It is rather that the "stage of society" is thereby determined. And by the "stage of society" Ricardo seems to mean the proportion of capital to the total of all the productive factors. He concludes that society will gradually approach a static state because, at bottom, there is no way to prevent an extension of

⁴⁹ Loc. cit.

⁵⁰ This became the point of departure for Marx in his refinement and extension of Ricardo's theory of value.

⁵¹ David Ricardo, op. cit., pp. 8, 18-20, 54-55.

⁵² Ibid., p. 20.

⁵³ Ibid., p. 33.

⁵⁴ Ibid., p. 64.

the margin in agriculture. [34] Capital accumulation will stop because the increase in the labor cost of food will raise the cost of labor and thus reduce profits below what is necessary to motivate investment; labor, having human procreational tendencies, will press the agricultural margin to the limits set by land area and techniques of cultivation; rent will increase and landlords will receive the income allowed by the extremest difference in the “original and indestructible” productive powers of different soils. Economics became known as the “dismal science.”

The Ricardian theory is an analysis of how the income of an economy is distributed among the economic classes by the open-market process operating under conditions of full and free competition. It may not properly be said to arrive at the laissez-faire position. Rather, it assumes that position.

Ricardo properly refrains from trying to solve an economic problem like government ownership the existence of which is not even permitted by his general economic theory.

Utility and Cost

Smith founded the classical theory in what he considered the inclusive and continuing factors, the basic factors, of the economic process. He brought the analysis forward to the market process. Ricardo started with the market process as his basic datum, and he extended the analysis to what seemed to him the logical conclusion of that process. He started with the market [35] process and he ended with the market process.⁵⁵

The classical theory at this stage of development proved to be vulnerable to criticism. The difficulty involved in founding profits and rents on the labor theory of value was apparent. And it was for this reason that both those who favored the policy indications of the theory and those who opposed them focused their attention on this point.

The utility theory of value had been given considerable attention by continental theorists, especially by J. B. Say, who, like Ricardo, found his point of origin in The Wealth of Nations. But Say was also influenced by the utility theorists.⁵⁶ The first mature effort to reconcile these two developments in value theory and to incorporate the reconciliation into the body of general theory was made by Nassau Senior.

Senior is of particular interest in relation to the present study because of his close personal familiarity with the problem of policy in government enterprise and because of his influence on the trend of development of the classical theory. His membership in the faculties of the University of Oxford and his service in various government agencies prompted his extended consideration of possible foundations in economic theory for policy in government enterprise.

[36]Senior began his outline of economic theory by defining economics as “the Science which treats of the Nature, the Production, and the Distribution of Wealth.” He immediately proceeded to define wealth as

... all those things, and those things only, which are transferable, are limited in supply, and are directly or indirectly productive of pleasure or preventive of pain; or, to use an equivalent, expression, which are susceptible of exchange; (using the word exchange to denote hiring as well as absolute purchase) or, to use a third equivalent expression, which have value; a word which, in a subsequent portion of this Treatise, we shall explain at some length, merely premising at present that we use it in its

⁵⁵ Ricardo will not prove to be peculiar in this regard.

⁵⁶ Abbe Condillac published his Le Commerce et le Gouvernement cosideres relativement l'un a l'autre in 1776.

popular sense, as denoting the capacity of being given and received in exchange.⁵⁷

Already, it is clear that Senior must explain the nature and the production of wealth as well as the distribution of wealth in terms of the market process. For, although wealth equals value which will be explained to have foundations in realities beyond and antecedent to exchange, it is “an equivalent expression” to “susceptibility of exchange” which, in turn, is determinable in the process of trading one thing for another - that is to say, the market process.

Senior’s analysis avoids the difficulties resulting from the Ricardian labor theory of value by placing both labor and capital in the common category, real costs. The exertion of labor and the abstinence involved in investing are common in terms of some sort of disutility. The real costs are [37] psychological.

Senior holds that these real costs determine supply in the sense that they are the obstacles which must be overcome in order to bring about production. But demand, too, is psychological. It is the degree “in which its possession is desired.”⁵⁸ It “denotes no intrinsic quality in the things which we call useful; it merely expresses their relations to the pains and pleasures of mankind.”⁵⁹ And, since those relations are reciprocal, the demand for “an object of purchase or hire is principally dependent on the obstacles which limit its supply.”⁶⁰ The balance of forces toward which free exchange directs production is that between a progressively increasing psychological cost and a progressively decreasing utility.

This view of real costs offers no explanation of rent beyond payment for “having permitted the gifts of nature to be accepted.”⁶¹ But it purports to offer the continuing and inclusive principles which explain the economic process in terms of the real costs of the productive factors. That is, it purports to explain “the Nature, the Production, and the Distribution [38] of Wealth.”⁶² The prospect of pleasure or avoidance of pain, (utility) causes men to overcome the obstacles to production (exertion of labor and abstinence). The stage of perfection to which this process is carried depends upon the degree of freedom of the interplay of that pattern of motivation. The interplay of that pattern of motivation is the market process. Therefore, the measure of perfection of the economic process is the degree of freedom in the market.

Senior personally was never able to convince himself that laissez faire was the proper position. Although he understood quite well that government enterprise “is not conducted on the principles which regulate ordinary exchanges,”⁶³ he also observed that, in such enterprises as the postal service,

The labour of a few individuals, devoted exclusively to the forwarding of letters, produces results which all the exertions of all the inhabitants of Europe could not effect, each person acting independently.⁶⁴

⁵⁷ William Nassau Senior, An Outline of the Science of Political Economy, Farrar and Rinehart, Inc., New York, 1939, p. 6.

⁵⁸ Ibid., p.15.

⁵⁹ Ibid., p. 7.

⁶⁰ Ibid., p. 17.

⁶¹ Ibid., p. 90.

⁶² Ibid., p. 6.

⁶³ Ibid., p. 75.

⁶⁴ Ibid., p. 74

Observations of this kind evidently led Senior to some appreciation of their disapproval with the implications of his general theory. For his later writings evince a strenuous and extended effort to discern correctly the relation between economics and those enterprises which produce and distribute things “which [39] are transferable, are limited in supply, and are directly or indirectly productive of pleasure or preventive of pain,” but which, nevertheless, are “not conducted on principles which regulate ordinary exchanges.”⁶⁵

After considering the military and police service and the postal service as examples of how the coordinated attention and efforts of a few persons accomplishes results which are far beyond what could be accomplished by many more people acting independently, Senior states that “The utility of government depends on this principle.”⁶⁶

But this is the very principle upon which the economic efficacy, or the utility, of the open market depends. Senior explains that capital is accumulated most efficiently through the free market process because that process gives free play to the motives for accumulating productive instruments and organizing labor in the most efficient manner. As an example of the results of this accumulation and organization he cites the cotton industry:

We doubt whether all the exertions of all the inhabitants of the Roman Empire, if exclusively directed to the manufacture of cotton goods, could, in a whole generation, have produced as great a quantity as is produced every year by a portion of the inhabitants of Lancashire; and we are sure that the produce would [40] have been generally inferior in quality.⁶⁷

This principle might be used to estimate the utility of any or all enterprise. But it cannot serve to designate government ownership as distinct from private ownership unless it is better served by one form of ownership than the other. In regard to the postal service, Senior seems to have in mind the idea that here there are principles involved that allow the government ownership of the enterprise to accomplish the higher efficiency. But he does not specify what those principles are.

In his essay on “National Capital: Its Nature, magnitude, and Purposes,”⁶⁸ Senior considered at some length the efficiency of capital employed in national defense and the capital devoted to popular education. In regard to the national defense and police service, he concluded simply that it cannot be done in any other way.⁶⁹ That essay gives no reason for education being a governmental institution, merely pointing out that, “Next to security, education is the great promoter of wealth.”⁷⁰ But his further essay on “National Education and Popular Amusement” states that the main duty of government “is to give [41] protection - protection to all, to children as well as adults, to those who cannot protect themselves as well as those who can.”⁷¹ The latter essay states also that those who require the protection of

⁶⁵ See, e.g., William Nassau Senior, Industrial Efficiency and Social Economy (original mss. arranged and edited by S. Leon Levy, Henry Holt and Company, New York, 1928).

⁶⁶ William Nassau Senior, Political Economy, p. 74.

⁶⁷ Ibid., p. 70.

⁶⁸ William Nassau Senior, Industrial Efficiency and Social Economy, Vol. I, pp. 182-196.

⁶⁹ Ibid., Vol. I, p. 190.

⁷⁰ Ibid., Vol. I, p. 193.

⁷¹ Ibid., Vol. II, p. 337.

education most are those who cannot or will not pay for it, for “it is only the educated who are aware that education is necessary.”⁷² When Senior was working with the Committee of the House of Commons on the Poor Law Relief of England, he was “astonished” and “grieved” because of an implied denial by a conferee that the state must assume “all the responsibilities (to a child) from which absolute inability discharges the parent.”⁷³ However, that implied denial could well have rested on the proposition that the unobstructed market process most efficiently works out the maximum efficiency of those things having to do with wealth, and that since education is a “great promoter of Wealth,” it properly should be left to the market process. And the conferee could have stated Senior’s Political Economy as proof of that position.

Senior’s latter essay indicates that individual inability to pay for a necessary item is basis for the government provision of that item. His position at this point may be set in contrast to his general position stated in connection with his [42] treatment of general theory where he says:

The essential business of government is to afford defense; to protect the community against foreign and domestic violence and fraud. Unfortunately, however, governments have generally supposed it to be their duty, not merely to give security, but wealth; not merely to enable their subjects to produce and enjoy in safety, but to teach them what to produce and how to enjoy; to give them instruction how to manage their own concerns, and to force them to obey that instruction.

Unfortunately, too, the ignorance and folly with which they have attempted to execute this office have been equal to the ignorance and folly which led them to undertake it.⁷⁴

This same general position is reiterated in his essay on “Government Regulation of Home and Factory Conditions.”⁷⁵ In the second paragraph of that essay it is stated that the government’s effort to protect individuals from the evils of poverty (as one of the ways of trying to make men happy) is not only likely to fail but is “liable to produce results precisely the reverse of those intended by the legislator ...” But in the same essay, after considering housing and factory legislation Senior concluded that

... it is the duty, and therefore the right, of a government to take any measures, however they may interfere with the will of individuals, which are conducive to the general welfare of the community.

Nevertheless, the previous proposition “refuses to a government the power of judging whether it can beneficially interfere to [43] protect the laborer against himself.”⁷⁶ However, Senior found that

The only rational foundation of government, the only foundation of a right to govern and of a correlative duty to obey, is expediency - the general benefit of the community. It is the duty of a government to do whatever is conducive to the welfare of the governed. The only limit to this duty is its power. And as the supreme government of an

⁷² Ibid., Vol II, p. 339.

⁷³ Loc. cit.

⁷⁴ William Nassau Senior, Political Economy, p. 176.

⁷⁵ William Nassau Senior, Industrial Efficiency and Social Economy, Vol. II, pp. 301-311.

⁷⁶ Ibid., Vol. II, p. 307.

independent state is necessarily absolute, the only limit to its power is physical or moral inability. And whatever it is its duty to do it must necessarily have a right to do.⁷⁷

The principle of general welfare, without limit, seems to be the rule intended here. And this rule seems to allow any degree or kind of adjustment in the institutions which the situation might indicate. But if Senior's general theory of the economic process has been correctly interpreted, then this principle could not stand on it. Whatever other grounds it may be founded on are not stated. This principle, like that of efficiency, cannot serve as a principle by which government enterprise can be distinguished, as such, either in terms of proper arrangement or in terms of historical fact. Either or both principles may be used as the standard of judgment by which either or both of the alternative patterns of ownership may be judged. But in that case the principles would be those which determine that any given enterprise is more efficiently [44] carried on, or is more contributory to the general welfare, under one pattern of ownership than under the other. To this question, Senior's general theory gives only the answer private ownership, and his special considerations of the problem offer no alternative principles.

Refinement and Application

Five years before the appearance of Senior's Political Economy, John Stuart Mill published five essays which were later combined into a book entitled Essays on Some Unsettled Questions of Political Economy.⁷⁸ In the last of these essays he stated that economics itself cannot be a collection of practical rules but that "unless it be altogether a useless science, practical rules must be capable of being founded upon it."⁷⁹ Mill's later work in economics maintained this idea of the functional importance of economic theory. His Principles, which appeared seventeen years later, included in the title, and in the treatment proper, "Some of Their Applications to Social Philosophy." His purpose was to incorporate into the general theory all the developments which had occurred since Adam Smith and to apply the refined theory to the major problems of society. The [45] general theory had been refined and society had changed, and so the time was proper for a new treatment based on the Smithian conception of the necessary relation between economic theory and economic policy.⁸⁰

Mill identified the same triad of productive agents that his predecessors had used. Although he retained the distinction between productive and non-productive labor, he agreed with Say that labor "is not creative of objects, but of utilities."⁸¹ The identification of productive labor is then placed on the susceptibility of accumulation of the utilities which the labor produces. But then the productive category is obscured by including labor "which yields no material product as its direct result, provided that an increase of material products is its ultimate consequence."⁸² It is the accumulation aspect that counts and it is this aspect which determines wealth. Wealth is "any product which is both useful and susceptible of

⁷⁷ Ibid., Vol II, p. 302.

⁷⁸ John Stuart Mill, Essays on Some Unsettled Questions of Political Economy, Longmans, Green, Reader, and Dyer, London, 1874.

⁷⁹ Ibid., p. 124.

⁸⁰ Ibid., "Preface to First Edition."

⁸¹ Ibid., p. 45.

⁸² Ibid., p. 48.

accumulation.”⁸³ Capital is “a stock, previously accumulated, of the products of former labor.”⁸⁴ [46] But this is not sufficient identification because:

The distinction, then, between Capital and Not-capital, does not lie in the kind of commodity, but in the mind of the capitalist - in his will to employ them for one purpose rather than another; and all property, however ill adapted in itself for the use of labourers, is a part of capital, so soon as it, or the value to be received from it, is set apart for productive reinvestment.⁸⁵

Labor is productive if it produces something that is not directly consumed. What is not directly (or forthwith) consumed is that which the capitalist decides to invest. Therefore it must follow that productive labor is that which produces capital.

Mill thus presents production as being carried on within the limits set by physical facts but nevertheless as being controlled essentially by those persons who decide whether a commodity is to be consumed or invested. Thus, although he opens his discussion of distribution by stating that “The laws and conditions of the production of wealth partake of the character of physical truths” and are not subject to arbitrary decision whereas distribution can be arranged at will,⁸⁶ he already has prescribed the key to the distribution pattern. Since the deciding function of the capitalist depends upon the institutional pattern and since that function is central to the whole of the productive process, it must necessarily follow that the theory of distribution will have to mould itself in [47] conformity with that same institutional pattern. And so it does.,

Mill pointed out that competition is not the only controlling influence in the market process. Custom also enters.⁸⁷ But “only through the principle of competition has political economy any pretension to the character of a science.”⁸⁸ “Wages, then, depend mainly upon the demand and supply of labour; or, as it is often expressed, on the proportion between population and capital.”⁸⁹ Profits depend on the cost of labor and the productivity of labor, on “the ratio which the remuneration of the labourers bears to the amount they produce.”⁹⁰ Rent is determined by the “difference between the unequal returns to different parts of the capital employed on the soil” which in turn depends on the intensive and extensive margin in agriculture. It must be paid, like profits and wages, in order to have use of the productive factor for which it is payment.⁹¹

This distribution is carried out through the market process. Because of the forces of competition, the exchange value, equalizing supply and demand, drive both supply and demand [48] into equilibrium at the cost of the marginal unit which is composed of labor and capital

⁸³ Ibid., p. 47.

⁸⁴ Ibid., p. 54.

⁸⁵ Ibid., p. 56.

⁸⁶ Ibid., pp. 199-201.

⁸⁷ Ibid., p. 242.

⁸⁸ Loc. cit.

⁸⁹ Ibid., p.343.

⁹⁰ Ibid., p, 419.

⁹¹ Ibid., p. 422.

only.⁹² Competition is the controlling factor, and it can operate most effectively in the open market. Mill does not presume to add anything to the theory of value or exchange-value. On that matter he states:

Happily, there is nothing in the laws of value which remains (1848) for the present or any future writer to clear up; the theory of the subject is complete.⁹³

Mill's general theoretical treatment arrives at the same position as that of his classical predecessors, and his procedures are the same. But his treatment extends much further than either Ricardo's or Senior's. It includes inquiries into possible applications which he treats along with the general theory and in which he introduces so many deviations from the structure of his general theory that it is difficult to see the intended connections.

The fifth book of Mill's Principles of Political Economy is devoted to the influence of government. It begins by designating two sets of categories for government functions: (1) necessary and optional, and (2) authoritative and unauthoritative. Under "necessary" are included all those functions which are universally and unanimously recognized as proper to government; under "optional" are included "those respecting [49] which it has been considered questionable whether governments should exercise them or not."⁹⁴ The functions involving mandamus or injunction are included in the "authoritative" category; those not involving mandamus or injunction are included in the "unauthoritative" category. The last-named kind of intervention is indicated:

... when a government, instead of issuing a command and reinforcing it by penalties, adopts the course so seldom resorted to by governments, and of which such important use might be made, that of giving advice, and promulgating information; or when, leaving individuals free to use their own means of pursuing any object of general interest, the government, not meddling with them, but not trusting the object solely to their care, establishes, side by side with their arrangements, an agency of its own for a like purpose.⁹⁵

Mill stated five objections which may be offered to this sort of government function:⁹⁶ (1) the increase in taxation or, if otherwise financed, the expenditures; (2) the danger of increasing the government's power and influence; (3) the increase in complexity of government resulting in greater inefficiency; (4) the lack of responsible interest as compared to private owner; (5) the loss of the educational effects of "labour, contrivance, (and) self control" which the difficulties of private enterprise stimulates. These five objections are given as the principal reasons for the general position of laissez-faire. [50] "Every departure from it unless required by some great good, is a certain evil."⁹⁷

Each of these reasons for objecting to government enterprise can be related to the general theory expounded by Mill. (1) The general theory classifies government functionaries

⁹² Ibid., pp. 478-480.

⁹³ Ibid., p. 436.

⁹⁴ Ibid., p. 796.

⁹⁵ Ibid., p. 942.

⁹⁶ Ibid., pp. 942-950.

⁹⁷ Ibid., p. 950.

as unproductive labor. Then it follows that an increase in government receipts, whether by taxation or otherwise would be a diminution of the stock comprising the demand for productive labor. (2) Increasing the government's power and influence offers some danger to that "originality of mind and individuality of character which are the only source of any real progress." They are crucial in the economic process because they serve toward progress through the decisions to invest which are the controlling factor in determining the character and rate of progress. (3) The increase in complexity requires an accountancy system that could be replaced by the costless forces of the market, and it loses the advantage of isolated attention which is one form of the division of labor. (4) The general theory of markets involves the idea that the highest interest and application results from the responsibility of ownership because it involves the possibility of greater disutility in case of failure. (5) The educational effects of labor, contrivance, and self-control are greatest in the market-determined process [51] because it is there that the greatest rewards are given for their development and the greatest penalties are imposed because of their lack.

Mill found, however, that there are instances in which these objections are absent or are overruled by counter-considerations of still greater importance.⁹⁸

First, there are some things which are of unmistakable utility but of which "the demand of the market is by no means a test." Education, asylums for insane persons, and the protection of lower animals are offered as examples. The reasons the demand schedules in the open market cannot reflect the real values in such instances are : (1) the consumer cannot be qualified to judge the utility of the commodity; (2) the consumer cannot pay the cost; or (3) the consumer has no discretion in the matter because he is under the autocratic power of another person.

Second, there are instances in which no amount of discretion and wisdom is sufficient. Contracts in perpetuity are cited as an example. Whenever the period of an agreement exceeds the possible foresight of parties thereto, there is economic ground for avoidance.

Third, some enterprises, if left to spontaneous agency, can be carried on only by an arrangement which divorces control and ownership. This results in the infringement of those forces [52] in the free market, on the supply side, which drive the supply and demand equilibrium into the optimum position. Joint stock companies are the example given here. Wherever ownership is driven to a degree of remove from control which exceeds the influence over government policy exercised by the citizen, then the enterprise is better carried on by the government.

Fourth, enterprises in which monopoly cannot be avoided require that the government either operate them directly or so control them that the "profits of the monopoly may at least be obtained for the public." In these enterprises,

There are the expenses without the advantages of plurality of agency; and the charge made for services which cannot be dispensed with, is, in substance, quite as much compulsory taxation as if imposed by law; there are few householders who make any distinction between their "water-rate" and their other local taxes.⁹⁹

Fifth, there are cases in which the interests of individuals cannot be brought into play except through concerted action which cannot be effective unless "it receives validity and sanction from the law." The point in view here is that the state should provide assurance of collective action in case the immediate and future interests of the individual can be made to correspond with the interests of society only if everyone else will act in the same manner and if,

⁹⁸ *Ibid.*, pp. 953-979.

⁹⁹ *Ibid.*, p. 962.

at the same time, the interests of the individual under separate choice dictates a different course. The examples offered in this instance are [53] labor legislation reducing the hours of labor and the Wakefield colonization policy in which land could not be appropriated beyond the quantity which the individual can cultivate.

Sixth, instances in which the purchaser is not the consumer may require that the government function as the purchaser. The example discussed in this connection is public relief in which the upper limit of public relief is set at less than the lowest market wage in order to regain the compulsions of the labor market. Another example that generally falls in this subsidy category is colonization. The basic reason that colonization requires subsidy is the difficulty of enforcing labor contracts where unoccupied land is freely available. The probability of the laborer absconding to free land makes the return on transporting him to and establishing him in a new land very doubtful. But the economic benefits of transferring people from congested countries to areas where the other productive agents are abundant may be very great. Still other examples of activities requiring subsidy are scientific research and the "cultivation of speculative knowledge." The reason that these activities cannot be brought to fruition in the market is that their benefit is received by society at large and falls so insensibly on individuals that they are not activated in the ordinary market sense.

It may be said generally, that anything which is desirable should be done for the general interests of mankind or of future generations, or for the present interests of those members of the community who require external aid, but which is not of a nature [54] to remunerate individuals or associations for undertaking it, is in itself a suitable thing to be undertaken by government: though, before making the work their own, governments ought always to consider if there be any rational probability of its being done on what is called the voluntary principle, and if so, whether it is likely to be done in a better or more effectual manner by government agency, than by the zeal and liberality of individuals.¹⁰⁰

All of these categories Mill considered as exceptions to the general laws of the market. But he was clearly aware that "There are not a law and an exception to that law -the law acting in ninety-nine cases, and the exception in one. There are two laws ..." ¹⁰¹ Accordingly, it is not at all clear that Mill considered the laws of the market real laws. In the introduction to his exposition of the theory of distribution, he states:

Whatever mankind produce, must be produced in the modes, and under the conditions, imposed by the constitution of external things, and by the inherent properties of their own bodily and mental structure.¹⁰²

The laws of production would remain even if social arrangements did not permit exchange.¹⁰³ But his expressed view of distribution is quite the contrary. He held that distribution "depends on the laws and customs of society." It "is a matter [55] of human institutions solely."¹⁰⁴ Evidently, Mill would not claim generality for the laws of the market. Evidently, there were other laws having to do with part of the economic process.

¹⁰⁰ Ibid., p.977.

¹⁰¹ John Stuart Mill, Essays, p. 124.

¹⁰² John Stuart Mill, Principles, p. 199.

¹⁰³ Ibid., p. 435.

¹⁰⁴ Ibid., p. 200.

But it has already been pointed out that Mill's unalterable laws of production involve the distinction between "capital and not-capital" as being in the "mind of the capitalist" because it is there that the productive or non-productive use of a commodity is decided. And the capitalist's decision rests on his estimation of the probability of whether the greater gain will accrue to him by consuming the stock directly or allocating it to support others in return for their further production. This basic characteristic of human nature is, then, fundamental to production. But this is the very same fundamental human trait which finds expression in the market process and which forces, through competition, the optimum arrangement of the productive factors except in so far as it is interfered with. Evidently, Mill did not realize that his theory of production prescribed the pattern of his theory of distribution and that to abandon the claim of generality in the latter necessarily involves the abandonment of the same claim in the former.

It cannot be claimed, then, that Mill's principles of government ownership are founded in either his theory of distribution or his theory of production. The connections [56] between each of his reasons for laissez-faire and his general theory have been pointed out, and his general theory is seen to serve as foundation for those reasons. But his principles of government ownership must stand on other grounds. And Mill himself has said that unless economics "be altogether a useless science, practical rules must be capable of being founded on it."¹⁰⁵

Marginal Utility

After 1821, the theory of value was shifted more and more from its foundation on labor measured in time units toward a new foundation which could have no units of measurement outside the market process. The Ricardian theory had been able to proceed from its real value determinant to the market process by assuming that the unrestricted market placed the various kinds of labor in the same array-distribution in price terms that they would display in labor-content terms. This imputation permitted Ricardo's distribution theory to claim some foundations in an obvious fact. But it also furnished critics with a referent which could be measured, or at least comprehended, in non-price terms and which could therefore serve as a basis for checking the results of his analysis. Utility, as the non-price referent for value, avoids this difficulty.

[57] Utility had been a part of the Ricardian theory only in so far as it was a necessary property of valuable items. It was not the sufficient, determining factor. In 1871, Stanley Jevons began his presentation of general economic theory with the statement that "value depends entirely upon utility."¹⁰⁶ He then defined value as "ratio of exchange."¹⁰⁷ In defining utility he agreed with Senior that "Utility denotes no intrinsic quality in the things which we call useful; it merely expresses their relations to the pains and pleasures of mankind."¹⁰⁸ Thus, ratios of exchange, prices of commodities, are entirely dependent upon their relation to the pains and pleasures of mankind, which are the "ultimate objects of the Calculus of Economics." To state the character of this dependence requires the idea of marginal utility which is derived from the law of diminishing utility. The utility of additional units of a commodity

¹⁰⁵ John Stuart Mill, Essays, p. 124.

¹⁰⁶ W. Stanley Jevons, The Theory of Political Economy, Macmillan and Company, Ltd., London, 1931, p. 1.

¹⁰⁷ Ibid., pp. 76-83.

¹⁰⁸ Ibid., p. 43.

progressively decreases as consumption is extended. And it is here that scarcity enters the picture, for, the more there is of a commodity in the market, the less is the utility of the last-added unit. When the supply is extended to where the utility of the last is no more and no less than the utility [58] of the last unit of any other commodity, the market is in equilibrium. This is the situation toward which the forces of the market drive ratios of exchange because as long as equilibrium does not exist, an increased utility can be gained by exchanging the comparatively excessive commodity for the comparatively scarce one and by shifting production from the former to the latter. The desire to maximize utility thus drives the productive factors toward supplying¹⁰⁹ the commodity which is being exchanged for the greater utility and thus toward equilibrium, not only in the consumer's goods market but also between various kinds of capital goods and between the factors of production.

Then how is this optimum situation reached? The obvious answer must be to avoid obstructing or interfering with the natural forces that bring it about. Those forces spring from basic human nature and cannot even be estimated except through their results in terms of price¹¹⁰ in an unobstructed competitive market. Jevons' general theory, like those of his predecessors, clearly dictates laissez faire.

By accepting the utility theory of value and by restricting the theory of valuation to the free-market determination of ratios of exchange, Jevons clearly placed himself in the [59] position of being unable to find logical warrant for government ownership either in his general theory of economics or on any other basis. This is necessarily the case since there could be no way to determine the efficacy of the government ownership of any economic enterprise except that the enterprise be called into being and operated in accordance with the conditions of a free and competitive market, in which event there could be no occasion for government ownership because the greatest utility would be forthcoming already.

But Jevons felt impelled, whatever the basis, to offer some criteria for the unavoidable problem. He specified the conditions under which government operation of an enterprise could be successful.

There appear to be four conditions under which state management of any branch of industry is successful:

1. The work must be of an invariable and routine-like nature, so as to be performed according to fixed rules.
2. It must be performed under the public eye, or for the service of individuals, who will immediately detect and expose any failure or laxity.
3. There must be very little capital expenditure, so that each year's revenue and expense account shall represent, with approximate accuracy, the real commercial success of the undertaking.
4. The operations must be of such a kind, that their union under one all-extensive government will lead to great advantage and economy.¹¹¹

In The State in Relation to Labor, Jevons goes even further on general grounds. He states:

[60] ... we can lay down no hard and fast rules, but must treat every case in detail on its merits. Specific experience is our best guide or even express experiment where possible, but the real difficulty consists in the interpretation of experience.

¹⁰⁹ Ibid., p. 64. Jevons uses supply in this instance to mean "rate of supply."

¹¹⁰ Ibid., p. 146.

¹¹¹ E. W. Eckard, Economics of W. S. Jevons, American Council on Public Affairs, Washington, 1940, p. 102.

We are reduced to balance conflicting probabilities of good and evil.¹¹²

As far as economic value is concerned, Jevons' general theory is a theory of how merit is attained in economic enterprise. His general theory is based explicitly on the specific identification of economic merit as the maximization of utility. And that same theory is a demonstration of how utility is maximized in the open, free, competitively determined market.

Synthesis

After 1871, marginal utility became the accepted basis of economic analysis. And by way of depending on price in a free and competitive market as the only measure of marginal utility, general economic theory became simply an analysis of competitive price. However, problems which were obviously economic and which could not be resolved on the basis of competitive price demanded attention. If economic problems were not to be considered in terms of economic theory, then in what terms were they to be considered? If general economic theory could not at least serve as the foundation of practical rules, then what purpose could it serve?

This impasse stimulated many students to reconsider the [61] general theory in terms of possible application. The reexamination of general theory combined with the study of many practical problems produced its most definitive results in the work of Alfred Marshall.

The equilibrium concept is central to Marshall's analysis.¹¹³ He tried to identify the forces at work in the economic process and to determine the situations toward which the interaction of those forces drives. The situation is one of equilibrium when the forces at play have no directional resultant.

Marshall accepted the utility theory of value in a modified form¹¹⁴ but he was very careful to emphasize that market ratios of exchange do not reflect numerical ratios of the various utilities and disutilities involved in the economic process.¹¹⁵ It is rather that real utilities and disutilities are the forces behind exchange ratios. They are the motivating influences which cause man to act toward equilibrating the market impact of their respective marginal units. It is only the market impact of the marginal unit of any item that is brought into equilibrium with the market impact of the marginal unit of every other item.

[62] In Marshall's analysis, decreasing utility and increasing disutility operate through demand and supply respectively to drive prices toward the point which equilibrates the market force of the two. In reference to the instantaneous picture, this equilibration requires little demonstration. In fact, in the instantaneous view, it is a truism; whatever forces cause exchange ratios to be what they are have most assuredly expended their causal action in so far as they affect exchange ratios that exist at the moment. Supply and demand are thus set up as the sole determinants of exchange ratios where the supply is given and the current demand schedule does not have time to shift in response to other influences.¹¹⁶ This is called the "market price." It is the value on the demand schedule that corresponds to the quantity of the given supply. Costs, real or money, can have no influence on the immediate situation because they cannot affect either the existing supply or the demand schedule.

¹¹² Erich Roll, op. cit., p. 374.

¹¹³ Alfred Marshall, Principles of Economics, Macmillan and Company, Ltd., London, 1938, pp. 323-324, 345.

¹¹⁴ Ibid., pp. 18, 61-62, 348, 815-820.

¹¹⁵ Ibid., pp. 14-18, 92-93 n.

¹¹⁶ Ibid., pp. 334-336, 348-349, 372, 378.

But if time is introduced into the equation, then costs play a determining part. In the “short period,” which Marshall designated as the projection of the period within which the factors of production may be assumed to remain constant, the supply is driven toward, but does not reach, that quantity for which the corresponding value on the demand schedule just [63] equals the marginal supply price based upon current costs of production.¹¹⁷

In the “long period” which Marshall defined as long enough to permit adjustment of the factors, the forces of supply and demand are able to work out their balance in terms of almost full adjustment to the revised costs of the factors and their reciprocal influences by expected demand schedules.¹¹⁸ This period is constituted by the longest-range expectancies that entrepreneurs can ordinarily be expected to make. Because of the full opportunity to reorganize, to adjust labor force and plant, and to duplicate or renew plant, the supply, under competitive conditions, is pushed to the quantity which can be sold at the supply price based upon costs under the extended readjustment. The free play of demand and supply in the market is assumed to effect these adjustments.¹¹⁹ Under these conditions, the supply price is that which just covers the costs of the factors. This is Marshall’s normal price. It is the price toward which adjustments are made. The factor costs which comprise the normal price are the prices that bring into equilibrium the market values of the disutilities involved in providing the factors at the margin and the market values of [64] the utilities which their receipts can procure.

This equilibrium price is never reached in the real economy. Particularly constant is the disequilibrium between various industries. The failure to attain general equilibrium results from imperfections in the market process and from the changes which occur over Marshall’s fourth and longest time period.¹²⁰ The changes involved here are those of the basic economic data such as population, knowledge, techniques of production and distribution, general enlightenment, and institutional structure. These changes are not controlled by the market forces but they have the effect of continuously changing the points of equilibrium toward which market values are driven. These changes specify the secular trend in exchange ratios.

It is extremely difficult to give a short, sequential statement of Marshall’s general theory. His extension of the marginal utility analysis, through the use of time periods, to account for changes over time and his synthesis of the cost and the utility analyses were productive of many concepts which have been important tools in subsequent developments. But just what Marshall considered to be the effects of those concepts on his general theory is not clear. Some of those concepts, for example “consumers’ surplus,”¹²¹ “substitution of the [65] factors,”¹²² the non-diminishing utility of money,¹²³ “representative firm,” and decreasing-cost industries¹²⁴ are still being debated. And some of those concepts have been used in efforts to discredit his general theory.

So far, however, as there is today any generally accepted body of economic

¹¹⁷ Ibid., pp. 374-375.

¹¹⁸ Ibid., pp. 363-380.

¹¹⁹ Ibid., p. 341.

¹²⁰ Ibid., p. 379.

¹²¹ Ibid., pp. 124-133.

¹²² Ibid., p. 371.

¹²³ Ibid., p. 793.

¹²⁴ Ibid., pp. 805-812.

doctrines, it is largely what Marshall made it.¹²⁵

It is impossible to say whether or not Marshall considered his general theory to be general in the sense that it was an analysis of the inclusive and continuing factors in the economic process. He clearly stated that the analysis must be restricted to the market process but that that process cannot be thought of as displaying the real economic operations. But he also stated that the market analysis can divulge the “normal” situation only when supply and demand are allowed free and unrestricted play. These clearly are claims to generality. The latter statement together with the dictum that the real values’ only available common measure is price and that therefore we are forced to use price “with all its defects” would seem to dictate the laissez-faire position. For, if economic realities can be seen only through price, and if price permits [66] the observation only when demand and supply have free play, then it would seem that there would be no way to judge an economic operation if those conditions did not prevail. But Marshall concluded on this point:

There is no general economic principle which supports the notion that industry will necessarily flourish best or that life will be happiest and healthiest when each man is allowed to manage his own concern as he thinks best.¹²⁶

Marshall used the tools of his price analysis to formulate at least one principle of government ownership.¹²⁷ He thought also that government undertakings “have a great future” but that they must develop “efficient control” devices.¹²⁸ Just how he thought that an enterprise which was not dependent on the only available manifestation (price) of its real transactions and which could not operate under the only conditions (free play of supply and demand) in which that manifestation could emerge is not stated.

The present writer is convinced that Marshall did not in fact believe that non-price determinations in economic matters are either invalid or unavailable in any sense, even in the sense and to the extent in which price determinations were both valid and available, although his statement of the [67] general theory specifically includes that dictum. Marshall frequently relied on non-price determinations in analyzing economic problems. For example, he relied on non-price determinations in his analysis of the propriety of the government installation and operation of certain enterprises in which the cost schedule is always above the price schedule.¹²⁹

In the example just cited, Marshall indicated that if the consumers’ surplus in an enterprise is greater than the aggregate loss in money, the enterprise should be installed and financed through taxation. This same principle applied also to enterprises in which the cost schedule is below the demand schedule only at some points.¹³⁰ Even though these industries could be operated, with monopoly restrictions, at a profit, the maximization of consumers’ surplus above aggregate costs may be attained by setting price below cost in case the increase

¹²⁵ Paul T. Homan, Contemporary Economic Thought, Harper and Brothers, New York, 1928, p. 195.

¹²⁶ Quoted by Paul T. Homan, ibid., p. 209.

¹²⁷ Alfred Marshall, Principles, pp. 489-492, 805-812.

¹²⁸ ibid., p. 304.

¹²⁹ ibid., p. 489-492.

¹³⁰ ibid., pp. 363-380.

in the consumers' surplus continues to be more rapid than the increase in costs beyond the point where costs equal demand price.

But the consumers' surplus is identified as the difference between the aggregate of what consumers must pay for the whole supply of an item and the aggregate of what they would have been willing to pay if the supply were introduced into the market unit by unit but if sales were not effected until the given [68] supply had been reached.¹³¹ This identification of consumers' surplus does not violate Marshall's general tenet that the incidences of the various forces can be estimated only in price or exchange-ratio terms. And it does not violate the general tenet that such estimations of the real forces antecedent to price can be made only by observing the free play of supply and demand, for much experiential evidence of the shape of cost and demand schedules in some enterprises can be determined under those conditions. But it does violate, strangely enough, the general tenet that price cannot be conceived as representing any actual comparisons between the real forces which are antecedent to price. Consumers' surplus is presented here as a real situation, as a situation having substance beyond the market process itself.

It is this disclaimer of congruity between price and real economic process combined with the positive claim that price is the only available criterion in that process - it is this combination that distinguishes Marshall's general theory. It permitted him to disavow the ethics of hedonism and at the same time to continue using the conceptual tools of the hedonistic calculus. In the instances in which the maximization of consumers' surplus serves as one of Marshall's criteria for government ownership, the disavowal of the ethics of hedonism [69] is abandoned. In this case, it is precisely the maximization of psychological satisfaction that gives warrant to the criterion.

Marshall found another criterion of policy regarding government ownership in the relation between risk and expected returns. The schedule of the supply price in certain industries may be raised completely beyond the demand schedule because of the risks that must be borne by the entrepreneur. If the supply price minus profits in such enterprises places the cost schedule below the demand schedule, then a real gain could be made if the undue risks could be eliminated. Situations of this sort are most apt to arise in developing particular natural resources which are isolated or are otherwise situated in relation to the business community so that entire communities must be built in order to bring the enterprise into being. On this point, Marshall concluded:

In those exceptional branches of production for which a government can found a manufacturing town without incurring the risks that a private firm would incur in a similar case, that point of advantage may fairly be reckoned as an argument for Governments undertaking those particular businesses.¹³²

This principle, if applied to its extremest possibilities, would result in the government establishing and operating any and every enterprise where the cost schedule could be calculated to fall, at any point, below the demand schedule and where private [70] firms have not begun operations. The fact that private firms have not begun operations would be, in light of Marshall's general theory, proof that the private entrepreneur's supply price is above the demand schedule. But, on the other hand, Marshall's general theory indicates also that if the demand schedule could be determined to be above the cost schedule, then the supply price would, for that reason, fall to or below the demand schedule and the required private investment

¹³¹ Ibid., pp. 124-133.

¹³² Ibid., pp. 443-444.

would be forthcoming. In relation to Marshall's general theory, this principle of government ownership seems to be equivalent to saying that gains could be made by the government ownership of certain enterprises under certain conditions but that when those conditions could be determined, private enterprise would appear and the conditions no longer would prevail.

In the case of "indivisible" undertakings, or "natural monopolies" Marshall decided that government control generally is preferable to government ownership.¹³³ His reason for this decision is that control could still allow for the initiative that accompanies ownership. But in some such enterprises,

... when a large use of rights of way, especially in public streets is necessary, it is doubtless generally best to retain the ownership, if not the management of the inevitable monopoly in public hands.¹³⁴

[71] At this point, two conditions are prescribed that may render a monopoly a proper subject of government ownership: first, it must be an inevitable monopoly, and second, it must have very wide patronage.

This idea is founded outside his general theory on both counts. The inevitability that Marshall had in mind is a function of the physical situation. It is determined entirely outside the market process. The "large use" aspect too is a matter of physical requirement, not a matter of price. What Marshall seemed to be thinking of in this connection is the physical necessity of large use," as in the case of streets where the use is not a matter of price, even in the monopoly sense of the word.

Marshall's idea of monopoly itself is not founded in his general theory. In the case of an inevitable monopoly, the unity of organization and operation is a matter of physical situation; in the case of an unnatural monopoly, the unity of organization and operation is the effect of special privilege maintained either by law or forceful concealment. The relation of monopoly to Marshall's general theory is its contrast with that theory. His theory of monopoly price may be contrasted with his theory of competitive price in that the latter displays forces working out toward an equilibrium that is "normal," that is in some sense an optimum situation; whereas the former displays forces working out toward an equilibrium that is abnormal, that is in some sense sub-optimum. The abnormality aspect does not lie in [72] the notion that in monopoly the free play of the forces behind supply and demand do not have complete effect, for they play as strongly and as effectively there as they do in competition, and their effects are even more definitive. The difference is that those forces work out an ill effect in monopoly and a good effect in competition. There is no way to avoid the identity of competition and normalcy and efficacy in Marshall's general theory.

It is not surprising, then, to reflect that Marshall, like his predecessors, founded each of his determinants of government ownership outside his general theory.

Marshall was much concerned with the real economic problems of his day;¹³⁵ and he was not a little directly engaged in efforts to solve them.¹³⁶ In his exercise over those concerns and in those practical engagements Marshall evidently was convinced that his "general principles" were not in fact statements of the continuing and inclusive factors in the economic

¹³³ Alfred Marshall, Memorials of Alfred Marshall (edited by A. C. Pigou), Macmillan and Company, Ltd., London, 1925, pp. 274-277.

¹³⁴ Ibid., p. 339.

¹³⁵ Ibid., passim.

¹³⁶ Alfred Marshall, Official Papers., Macmillan and Company, Ltd., London, 1926, passim.

process although his statement of the theory seems to require that interpretation. He had a strong sense of institutional evolution, and he evidently held the notion that the classical general theory, though stated as fundamental, was not more than a special theory containing no continuing fundamentals. [73] In a letter to Professor C. R. Fay, concerning the period 1920-1970, he wrote: "I believe it will make my poor Principles, with a lot of poor comrades, into waste paper."¹³⁷

The Classical Theory and the Principles of Government Ownership

The general economic theory which had its first inclusive statement in The Wealth of Nations and its last reformulation in Marshall's Principles has been, from 1776 up to now, the most widely accepted view of the basic economic principles. That is to say, through the period during which the living-getting process has been clearly and separately designated as an area of inquiry, the classical statement of the pattern of the continuing and inclusive factors in that process has held the widest credence.

All of the theorists in the classical line of development have encountered the problem of government ownership. Almost all of them have given the problem extended consideration, and many of them have made their pronouncements in the form of guiding principles. Not one of these principles has been found to be based in the classical theory at any stage of its development. Without exception, the classical theorists have had to go outside their general theory to find basis for their solution [74] of a constant and an important economic problem.

A recapitulation of their principles of government ownership follows.

Adam Smith's general principle of government ownership is incorporated in his statement that the government has

... the duty of erecting and maintaining certain public institutions, which it can never be for the interest of any individual, or small number of individuals, to erect and maintain; because the profit could never repay the expense to any individual or small number of individuals, though it may frequently do much more than repay it to a great society.¹³⁸

Evidently, something other than receipts from sales is intended in Smith's statement because he includes education, highways, streets, harbors, etc. under this principle. He seems to have had in mind some other basis for determining the repayment to society. But it also includes coinage and the postal service which, he observes, may, and frequently do, gain a profit directly from the sale of services.

In speaking of the general category of non-private enterprise, Smith states that they must be capable of being "reduced to strict rules." But he does not give this as sufficient reason for non-private control.

Senior's general principle of government ownership is simply that if an enterprise can be more efficiently organized and operated by the government, then it should be government-[75]owned.¹³⁹

John Stuart Mill extended and organized the analysis of government ownership. His principles are as follows: (1) If the consumer of the enterprise cannot exercise his full

¹³⁷ Alfred Marshall, Memorials, p. 490.

¹³⁸ Adam Smith, op. cit., pp. 650-651.

¹³⁹ William Nassau Senior, Political Economy, p. 74.

discretionary function, either because of inability to understand or inability to pay or because he is under the autocratic authority of another person, the enterprise is properly subject to government ownership. (2) The government should interfere in those cases in which no amount of wisdom and discretion is sufficient to foresee the ultimate consequences of a decision in contract. (3) If the necessary organization of an enterprise divorces ownership and control beyond the degree of divorcement between the citizen and the government, then the enterprise is better carried on by the government. (4) Natural monopolies should be government-owned or they should be controlled to attain the same results. (5) The government should do whatever is necessary to give effect to the individual's recognized interests if those interests require collective action and if that action cannot be effective without government action or forceful sanction. (6) If the service is highly valuable but does not activate individuals toward purchase because its benefits are indirect and evenly spread, the enterprise is properly a government function.

W. Stanley Jevons developed no principles of government [76] ownership but he stated four conditions "under which state management of any branch of industry is successful." They are as follows: (1) invariable and routine-like nature, (2) complete public information and observation of the operation, (3) low capital expenditure, and (4) inherent character that permits incorporation into the government to "lead to great advantage and economy."

Alfred Marshall's principles of government ownership grow directly out of his theory of consumers' surplus and his theory of monopoly. His first principle is that if the maximization of consumers' surplus over total costs involves setting price below cost, then the enterprise is a fit subject of government ownership. Marshall's second principle is that monopolies which are inevitable and which have a very wide patronage may be proper subjects for government ownership. He preferred regulation rather than government ownership of monopolies. The distinguishing factor he had in mind seems to be simply the physical situation which requires constant and very wide patronage of an indivisible industry.

The general frame of reference in terms of which the problem of government ownership was approached changed considerably from 1776 to 1890. Adam Smith framed his treatment generally in terms of the effect that the government ownership of a particular enterprise would have on the remainder of the economy. Senior and Mill approached the problem from the standpoint of the comparative efficiency of the government-[77]ownership of a particular enterprise and the private ownership of the same enterprise. Mill, especially, sought out the factors that would indicate the superior internal efficiency of the government ownership of a particular enterprise. Marshall considered the problem of comparative internal efficiency. But his primary concern was the development of analytical tools which would be useful in studying the problem from the standpoint of maximizing utilities under the assumption that internal efficiency could be achieved under either form of ownership.

HETERODOX THEORY AND GOVERNMENT OWNERSHIP

The Underconsumption Analysis

During the century in which the classical theory was being developed into its present form, the Underconsumption analysis held the attention of very few economists. It received its initial inclusive statement at the hands of Thomas Robert Malthus soon after the appearance of Ricardo's Principles, and it was maintained in essentially its original form until the depression of the 1930s forced economists to reconsider the general idea which distinguishes the underconsumption analysis.

That general idea is that the free market does not work out full use of the factors of production. The classical theory has been seen to incorporate the dictum that an unrestrained, competitive market results in all-out production under conditions of full employment of all the factors. That dictum is disputed by the underconsumption theory.

The underconsumption theory's claim to generality lies in the same assumption which serves the classical theory in that regard. Both theories assume that the market process, and therefore the economic process, can be explained in terms of price alone. They differ only in that they offer different [79] explanations of how the economic process works out through price.

Malthus offered his theory as a dissent from the more prevailing Ricardian view. The latter, he observed, is unable to explain the run of the facts. In this regard, he said:

It is not favorable to the science of political economy, that the same persons who have been laying down a rule as universal should be obliged to found their explanations of most important existing phenomena on the exceptions to it.

.....
Though in reality such an event forms no just objection to theory, in the general and proper sense of the term; yet it forms a most valid objection to the specific theory in question, as proving it in some way or other wrong;...¹⁴⁰

Malthus began his analysis by restricting the study to the "value in exchange" of material objects¹⁴¹ and by explaining that the use of money as a common unit of account permits the study to proceed in terms of price.¹⁴²

The exchange value of any commodity is determined at any time, and therefore at all times, by the relation between the demand for and the supply of that commodity.¹⁴³ Costs can enter the picture only in so far as they can affect either or both demand and supply. But costs themselves are determined by [80] relative demand and supply,¹⁴⁴ and so it remains that

¹⁴⁰ Thomas Robert Malthus, Principles of Political Economy With a View to Their Practical Application, The International Economic Circle, Tokyo, 1936, p. 11.

¹⁴¹ Ibid., pp. 21-49.

¹⁴² Ibid., pp. 54-55.

¹⁴³ Ibid., p. 61-69.

¹⁴⁴ Ibid., pp. 74-77.

... the relation of the supply to the demand is the dominant principle in the determination of prices whether market or natural, and that the cost of production can do nothing but in subordination to it, that is, merely as it affects the ordinary relation which the supply bears to the demand.¹⁴⁵

The inquiry then properly becomes an effort to determine the prices of the factors of production. In other words, what determines the effective demand for and the supply of land, labor, and capital?

In Malthus' analysis, rent is defined as the

... portion of the value of the whole produce which remains to the owner of the land, after all the outgoings belonging to its cultivation, of whatever kind, have been paid, including the profits of the capital employed, estimated according to the usual and ordinary rate of the profits of agricultural capital at the time being.¹⁴⁶

The demand for land is different from that for other factors in that it is maintained by the propensity of the population to increase as the means of subsistence increases. The use of land which can produce more than the subsistence of the cultivators thus can demand in the market not only the supply of labor which is necessary to cultivate the land but also the additional supply of labor which has increased of its own accord.¹⁴⁷

[81] The supply of land is fixed by nature and is thus unavoidably limited. But it cannot be manipulated by the owner as in the case of ordinary monopolies. And the demand for its produce is determined by that produce itself, through human reproduction which also distinguishes land from ordinary monopolies.¹⁴⁸ Thus the demand for and the supply of land maintain the price of its use above cost in most instances. But, at the same time, its exchange value is kept in conformity with its use value, its value in maintaining the labor required to produce its use value.¹⁴⁹

In Malthus' Principles, wages are defined as "the remuneration to the labourer for his exertions."¹⁵⁰ Wages, like the other factors, are determined by supply and demand. The supply of labor is a function of agricultural production. The demand for labor is "the quantity and value of those funds which are actually employed in the maintenance of labour."¹⁵¹

Profits are defined as that portion of the national revenue received by the capitalist for the use of his capital. They consist of "the difference between the value of a commodity produced and the value of the advances necessary to produce [82] it ..."¹⁵² The limit below which profits cannot fall is the productivity of the "last capitals employed upon the land."¹⁵³

¹⁴⁵ Ibid., p. 72.

¹⁴⁶ Ibid., p. 136.

¹⁴⁷ Ibid., pp. 142-143, 162.

¹⁴⁸ Ibid., pp. 146-147.

¹⁴⁹ Loc. cit.

¹⁵⁰ Ibid., p. 217.

¹⁵¹ Ibid., p. 234.

¹⁵² Ibid., p. 262.

¹⁵³ Ibid., p. 271.

The actual profits, however, are determined by the “varying value of the produce of the same quantity of labour on the same quantity of capital ...”¹⁵⁴ And this varying value of the produce of capital depends on the abundance of capital, “including the funds for the maintenance of labour,” as compared with the abundance of “the labour which it employs.”¹⁵⁵

Then, since the “abundance of labour” is given by the law of population, the analysis requires a theory of capital formation so that the required comparisons can be made.

Malthus agreed with the classical analysis that capital formation can come only from savings.¹⁵⁶ But he contended that savings are, as such only one half of the supply-demand picture. The other side is “effectual demand.” He pointed out that investment is made only in the prospect of profits from the eventual produce.¹⁵⁷ Then the actual rate of investment depends upon the maintenance of effective demand for the [83] eventual produce. This demand cannot come entirely from wages, for, if wages were equal to the total produce, there would be no profits. And the difference cannot come out of profits because there would then be no savings. The difference could come only from non-productive expenditure. Therefore, the only way to insure continued effective demand, and thereby profits, would be to maintain a large, non-productive expenditure.

In all of this there is implied the inequality of savings and investment. On this matter, Malthus stated:

Almost all merchants and manufacturers save, in prosperous times, much more rapidly than it would be possible for the national capital to increase, so as to keep up the value of the produce.¹⁵⁸

It is not clear whether Malthus meant that effective demand would fail only if saving exceeded investment or that all profits require equivalent non-productive expenditure. His statement seems to shift from one view to the other.

But, in any event, the actual open-market process is pictured as inherently incompatible with all-out production. Periods of prosperity bring on depression.

Because of his view of the disrapport within the free-market process, it is to be expected that Malthus would not support the laissez-faire, position. In this connection he pointed out that the government cannot avoid the necessity of taxation and that even this requirement makes it “impossible [84] for a government strictly to let things take their natural course.”¹⁵⁹ But Malthus’ primary concern was with demonstrating the necessity of a large non-productive” expenditure such as could be made by landowners, and so he did not go into the matter of other avenues of non-investment expenditures beyond mentioning them as possible aids. His theory could serve merely as the point of departure for alternative programs.

The underconsumption theory as propounded by Malthus is concerned with the problem of the level of employment. His approach to that problem was made through the idea of “gluts” or over-supply, the idea that goods are produced which cannot be sold. This idea involves the necessity of disproving Say’s Law, because if supply creates its own demand, then without

¹⁵⁴ Ibid., p. 276.

¹⁵⁵ Loc. cit.

¹⁵⁶ Ibid., p. 314, 326.

¹⁵⁷ Ibid., p. 324.

¹⁵⁸ Ibid., p. 400.

¹⁵⁹ Ibid., p. 16.

doubt no such thing as an over-supply could possibly exist. The underconsumptionist approach to that attack is through an effort to disprove Adam Smith's dictum that what is saved is as readily spent as what is consumed, "and nearly in the same time too, but by a different set of people." For, if all receipts from sales were spent as rapidly as received, and if the expenditure on capital investment preceded the sales of the eventuating commodities, then quite obviously there could be no production in the aggregate which could not be sold in the aggregate. Say's Law would hold. The analysis therefore came [85] to be founded on the inequality between savings and investment.

Proceeding from excess savings to failure of effective demand remained the sequence in the underconsumption analysis of the level of employment until 1936. During that time, Malthus' distinction between landed capital and industrial capital was dropped, and with it the argument for high rents. But the analysis continued to rest, at bottom, on the idea that savings exceed investment.

In 1936, John Maynard Keynes published a somewhat different analysis of the same general problem in terms of the market determinants of the level of employment. In the General Theory of Employment, Interest, and Money, Keynes outlined his problem somewhat as follows:¹⁶⁰ (1) The rate of both real income and money income depends on the level of employment. (2) The rate of consumption varies in the same direction as the rate of income, but at a lower rate. (3) The rate of net income is the sum of the rate of sales of investment goods and the rate of sales of consumers' goods. (4) Therefore, at any given level of employment, there must be a rate of investment equal to the difference between the rate of income and the rate of consumption. (5) Therefore, the level of employment depends upon the propensity [86] to consume and the rate of investment. (6) But the rate of investment depends on the relation between the marginal efficiency of capital and the rate of interest. (7) Therefore, the level of employment depends on the propensity to consume, the marginal efficiency of capital, and the rate of interest.

The propensity to consume at any given level of income depends on what Keynes called certain "objective factors" and certain "subjective factors."¹⁶¹ The objective factors are such things as changes in government fiscal policy, changes in money wage-rates, and windfall changes in capital values. The subjective factors are characterized as precaution, foresight, calculation, improvement, independence, enterprise, and pride and avarice. Social, government, and business institutions are influenced by prospective expansion of investment, safety in emergencies, etc.

Keynes came to the conclusion that the propensity to consume at any given level of income is a fairly stable factor, at least for the reasonably short view. It varies noticeably with changes in the level of income but is comparatively stable for any given level of income.¹⁶²

The marginal efficiency of capital is defined as

... that rate of discount which would make the present value of the series of annuities given by the returns [87] expected from the capital-asset during its life just equal to its supply price.¹⁶³

¹⁶⁰ John Maynard Keynes, The General Theory of Employment, Interest, and Money, Harcourt, Brace and Company, New York, 1936, pp. 27-32.

¹⁶¹ Ibid., pp. 89-95, 107-110.

¹⁶² Ibid., pp. 110-112.

¹⁶³ Ibid., p. 135.

As long as this rate of return exceeds the rate of interest, the entrepreneur has a real motive for extending his purchases of the capital asset. But the extension of investment in any capital asset reduces its marginal efficiency and so ultimately brings it into approximate equality with the rate of interest. The investment-demand schedule then is the schedule of investment which brings the marginal efficiency of capital into equality with the rate of interest.

The rate of interest is not the same thing as the marginal efficiency of capital although equilibrium is established only when they have the same numerical rate-value. The rate of interest is defined as the price paid for the use of money; it is that price which brings into equilibrium the demand for and the supply of money.¹⁶⁴ Thus it is in contrast with the classical theory which conceives interest to be the price which equilibrates the demand for and the supply of savings. Keynes reasoned that since interest is the price paid for parting with liquid control over money, and since all money is held by someone all the time, interest obviously is the price which brings the liquidity preference into equality with the quantity of money. Interest equilibrates the demand [88] for and the supply of money. The supply of money is determined by banking policy and by government fiscal policy; the demand for money is motivated by the need of cash for transacting business, the desire for security, and the desire to gain, if opportunity occurs, by being in the immediate possession of cash.¹⁶⁵

The propensity to consume, the marginal efficiency of capital and the rate of interest are thus independently determined. They, in combination, determine the level of employment. And the level of employment may be at any point between starvation and full employment. There is thus no way for the marginal disutility of working to be brought into equilibrium with the marginal productivity of labor except by accident or by controlling one or more of the determining factors.

In the Keynesian analysis, the causal relation between savings and investment is reversed in its direction of action. Savings and investment remain necessarily equal, but decisions to invest determine the level of savings rather than the other way around. Decisions not to spend merely reduce income, for there is no automatic adjustment in the price system which would transfer income not spent on consumption into capital expansion.

Keynes' theory in itself gives no basis for government [89] policy. But when it is considered in connection with the assumption that the sine qua non of all economic considerations is that the economic process be kept going, then this theory suggests definite policy in the matter of government ownership. Its author made that assumption, and he drew several conclusions in that regard. His general conclusion is as follows:

I expect to see the State, which is in a position to calculate the marginal efficiency of capital-goods on long views and on the basis of the general social advantage, taking an ever greater responsibility for directly organizing investment ...¹⁶⁶

In the same vein, he said:

In conditions of laissez-faire the avoidance of wide fluctuations in employment, may, therefore, prove impossible I conclude that the duty of ordering the current volume of investment cannot safely be left in private hands.¹⁶⁷

¹⁶⁴ Ibid., p. 167.

¹⁶⁵ Ibid., p. 170.

¹⁶⁶ Ibid., p. 164.

¹⁶⁷ Ibid., p. 320.

In judging that the rate of interest, if left to itself, tends to rise too high, Keynes suggested that the government control it in order not to impede economic development.¹⁶⁸ In this same connection, he pointed out that insecurity is the chief cause of a high liquidity preference and therefore one of the main forces in raising the interest rate and decreasing the rate of investment.

Keynes evidently considered his theory to be a complete [90] demonstration that the open market process cannot survive its inherent incapacity correctly to correlate the propensity to consume and the inducement to invest.

Whilst, therefore, the enlargement of the functions of government, involved in the task of adjusting to one another the propensity to consume and the inducement to invest, would seem to a nineteenth-century publicist or to a contemporary American financier to be a terrific encroachment on individualism, I defend it, on the contrary, both as the only practicable means of avoiding the destruction of existing economic forms in their entirety and as the condition of the successful functioning of individual initiative.¹⁶⁹

Thus Keynes thought that his economic analysis could be used to achieve the minimum institutional adjustments required for avoiding complete collapse.

Keynes' theory is an analysis of the internal working of the open-market process. It pictures that process as defective in that it cannot maintain sufficient effective demand to maintain full employment. The concept of defectiveness is drawn from the conviction that continuity and efficiency of the economic process is the all-important basis for any sort of economic theorizing. In that conviction, Keynes was able to say, in light of his theory, that, since the market process cannot alone maintain the requisites of its own continuance, deliberate measures must be taken to correct the deficiency. His theory also furnishes a quantitative measure of whatever governmental intrusions are adopted. But his theory offered [91] him no guide as to which enterprises or what kind of enterprise should be the points of intrusion, and he therefore refrained from making any pronouncements on that matter. A great many proposals for particular government enterprises have claimed basis in the Keynesian analysis. But their basis in that theory is restricted to the necessity for government expenditure; they can find in it no warrant for being selected as particular enterprises in which the government could or should engage.

Institutionalists

The term "institutionalist" customarily has been applied to a group of American economists whose theoretical outlook seemed to stem from the work of Thorstein Veblen. Out of this group, during the first three decade of the current century, there was promise of a new school of economic thought. But the theoretical formulations of the persons in that group have diverged so greatly that the identification of a separate school seems to have disappeared. The members of what was called the institutionalist school have dispersed into the contemporary complex.

But the effects of Veblen's work have not played out. On the contrary, they have entered importantly into the contemporary complex. Not only has Veblen's analysis been furthered

¹⁶⁸ Ibid., p. 351.

¹⁶⁹ Ibid., p. 380.

directly in the line of his basic concepts, but also his criticisms of the various bodies of economic theory have [92] enforced a skepticism and consequently a reexamination that still is in ferment.

Veblen's provoking, critical analyses of the several systems of received doctrine placed him at once in the role of a dissenter, but not the kind of dissenter with whom the orthodox were accustomed to deal. He dissented not only from the orthodox but also from the dissenters in that he proposed no pattern of economic institutions which would be the proper pattern, and no such pattern could be given foundation in what his theory indicated. The heterodox, both revolutionary and non-revolutionary, had always used the terms, categories, and much of the same conceptuology used by the orthodox. And, as in the case of orthodox theory, some particular pattern of institutional arrangements had always found warrant in each dissenting general theory. But Veblen insisted that those categories and that conceptuology were insufficient and in part irrelevant to the general economic theory.¹⁷⁰ Here was something new, and it was new in a sense that proved extremely perplexing to the various schools of received doctrine.

This perplexity was not lessened by the character of Veblen's writing. He wrote "piece-meal," in terms of both time and subject-matter. And nowhere did he set down his comprehension of the economic process in any organized, clear-cut, [93] and clearly stated fashion.

The piece-meal character of Veblen's writing also renders difficult any effort to give a succinct and simple outline of his system of ideas. The materials have to be taken from here-and-there because they are given no sequentially organized treatment by Veblen himself.

One of the most highly reputed of Veblen's biographers has said:

If the men who count in the social sciences in the United States were asked today who was America's most creative thinker in this field, few would dissent from the choice of Thorstein Veblen. They might not approve his views in general, let alone the details, but they would acknowledge that he showed a far more penetrating insight into the nature and future course of development of the modern business civilization than any of his contemporaries or successors.¹⁷¹

Whether Veblen's "penetrating insight" was a function of his general economic analysis is a debatable question. But it is worth mentioning that his rejection of orthodox theory seems not to have incapacitated him in that regard.

Veblen agreed with all of his predecessors that economics is concerned with the provision of the material means of human life. He further agreed that the focus of that concern is with "the conduct of man in his dealings with the material means of life."¹⁷² In other words, economic science is concerned [94] primarily with the institutional aspects of the living-getting process. It considers the physical-engineering phases of that process only in their causal or genetic relations to the institutional aspects. In short, economics is the scientific study of institutions.

Veblen observed that scientific economics cannot consider any given pattern of institutions as inclusive and continuing factors. For, as he pointed out, "To the modern scientist, the phenomena of growth and change are the most obtrusive and most consequential facts

¹⁷⁰ Thorstein Veblen, The Place of Science in Modern Civilization, B. W. Huebsch, New York, 1919, pp. 56-81.

¹⁷¹ Thorstein Veblen, Imperial Germany and the Industrial Revolution, The Viking Press, New York, 1919. (Opening paragraph in "Introduction" by Joseph Dorfman.)

¹⁷² Thorstein Veblen, The Place of Science in Modern Civilization, p. 241.

observable in economic life.”¹⁷³ And since “human conduct, economic or otherwise, is subject to the sequence of cause and effect”¹⁷⁴ and is therefore subject to scientific inquiry, “the science is necessarily an inquiry into the life-history of material civilization ...”¹⁷⁵ His statement continues:

Like all human culture, this material civilization is a scheme of institutions - institutional fabric and institutional growth. But institutions are an outgrowth of habit. The growth of culture is a cumulative sequence of habituation, and the ways and means of it are the habitual response of human nature to exigencies that vary incontinently, cumulatively, but with something of a consistent sequence in the cumulative variations that go forward, ...¹⁷⁶

It is the “consistent sequence in the cumulative variations” that Veblen was seeking. For the pattern of that sequence is the necessary content of the dynamic theory of institutions. He did not succeed in formulating that pattern, but he did have sufficient comprehension of its general character to permit him to display the “penetrating insight” with which he has been credited.

Veblen’s search for the “consistent sequence” in institutional adjustment led him to the conviction that institutions, which he defined as “the settled habits of thought common to the generality of men,”¹⁷⁷ are the outcome of daily “habits of life.”

Whether it is intentionally directed to the education of an individual or not, the discipline of daily life acts to alter or reenforce the received habits of thought, and so acts to alter or fortify the received institutions under which men live.¹⁷⁸

Also, any deliberate effort to change the institutional pattern at any point depends on whether the proposed change “meets the special material requirements of the situation which provokes it,”¹⁷⁹ and any proposed change that promises to meet those requirements cannot be staved off without making up one’s account with those material conditions which converge to bring [96] it on.”¹⁸⁰ Thus Veblen thought that any adjustment of an economic institution, whether by gradual habituation or by deliberate choice, is contingent on that adjustment’s effective correlation with the physical provision of the material means of life.

This theory conceivably could be applied to the broader aspects of institutional adjustment and to the most minute adjustments - for example, price variations. Veblen thus makes it more than a suspicion that all economic problems are problems of institutional adjustment.

It is for that reason that his work is particularly significant to a study of the theoretical foundations of government ownership in a capitalistic economy. For the problem of government

¹⁷³ Ibid., p. 232.

¹⁷⁴ Ibid., p. 239.

¹⁷⁵ Ibid., p. 241.

¹⁷⁶ Loc. cit.

¹⁷⁷ Ibid., p. 239.

¹⁷⁸ Ibid., p. 314.

¹⁷⁹ Thorstein Veblen, The Engineers and the Price System, The Viking Press, New York, 1934, p. 87.

¹⁸⁰ Loc. cit.

ownership in such an economy obviously is a problem of institutional adjustment. If the run of the facts in the sample of government-owned enterprises selected for this study fall into the pattern of Veblen's theory, they will constitute added evidence of the validity of that general theory; if the run of the facts do not fall into that pattern, then the converse will obtain.

Veblen left his general theory at the state of "making up one's account with the material conditions which converge to bring it (adjustment) on." The extension of that theory [97] has been in determining how that account is made up; the refinement of that theory has been in clarifying the concepts of the "institutional" and the "technological" aspects of the economy. The only published effort to further Veblen's general theory on both counts has been made by Professor C. E. Ayres of the University of Texas.

Professor Ayres' extension of the theory of institutional adjustment is made on two fronts both of which enter into the determination of how the "account with the material conditions" is "made up."

The first of these two fronts is the theory of value, the theory of that in terms of which the account may be drawn. Professor Ayres draws the Veblenian distinction between the technological and institutional aspects of the economy in light of more recent developments in the theory of knowledge¹⁸¹ and concludes:

For every man the real and valid judgments of economic value are those he makes between purchases, judgments of value in use as economists once said, tested and verified by the way things work in the continuous effort of existence. It is to this test that all economic values are in fact submitted, those of public policy affecting the industrial system as a whole no less than those of private life. For every individual and for the community the criterion of value is the continuation of the life-process - keeping the machines running. That is what we have in fact been doing throughout the ages, and that is what we must continue [98] to do and do continually better - technologically better - if we are to continue and exceed the achievements of the past.¹⁸²

Professor Ayres makes it clear that the one thing without which there is nothing at all in the economic sense is the continuity of the economic process. Indeed, a reference back to this basis is forced by the run of the physical facts. For it is obvious that any criterion of value in terms of which action is taken which contravenes the continuity of the economic process thereby cancels all human action, including the action taken under those terms. It is proposed, then, that economic estimation be made directly in terms of the criterion which the run of the facts dictates. Professor Ayres views the character of that dictation much as the curvature of a lens is dictated by its function in the process in which it plays a part. The problem posed by any disrapport between the lens grinder's predilection concerning proper concavity or convexity on the one hand and the dictation of the facts on the other hand can be resolved only by an adjustment of the predilections. In this same sense, Professor Ayres points out that the locus of economic value is in the economic process, not in predilections drawing warrant from any other source.

Something of this same conception of value is implicit in most of Veblen's work, and he tacitly applies it in almost all of his discussion. But his view of science as being [99] motivated by "idle curiosity" blocked any logical way to a theory of value drawn in terms dictated by the run of the facts. For if science is valid only as an exercise of idle curiosity, although its content is

¹⁸¹ Clarence E. Ayres, The Theory of Economic Progress, The University of North Carolina Press, Chapel Hill, 1944, pp. 177-202, 219.

¹⁸² Ibid., p. 230.

dictated by the run of the facts, there is no way to base the validity of science itself in the same sort of mental processes with which it examines and explains the facts.

The second front on which Professor Ayres extends the Veblenian theory of institutional adjustment is the determination of what particular adjustments are made. This determination comes to focus in what Professor Ayres calls “the power of ideas.”¹⁸³

Many students of Veblen’s writings have got the impression that institutional adjustments, being changes in the “settled habits of thought common to the generality of men,” are altogether a matter of unconsciously modified habituation. From this point, the conclusion sometimes has been drawn that changes in structural institutions are exclusively unreasoned changes in habits. Professor Ayres points out that ideas are the immediate point of departure for adjustments in structural institutions, that is, in the prescribed relations of a group of people organized for definite purposes.”¹⁸⁴

But he points out also that two kinds of ideas are [100] involved.¹⁸⁵ On the one hand, conceptual formulations based on the authority of personalities serve toward maintaining the existing rules of the game. On the other hand, ideas arising as conceptual formulations of the material economic process serve toward changing the rules of the game as the material conditions of the economic process change. Either way, the pattern of ideas is the immediate prescription of the pattern of human relations, and any change in the former is the immediate prescription of a change in the latter. Professor Ayres’ contribution at this point is that the causal potency of an idea based on the authority of personalities is a function of the coercive power of those personalities, whereas the causal potency of an idea based on the run of the facts in causal terms is a function of the correctness of the idea. The former, Professor Ayres identifies as non-causal or metaphysical; the latter, he identifies as science. Metaphysical ideas have no potency in themselves; the source of their potency is exterior to the ideas. Scientific ideas are potent as such.¹⁸⁶ Then it is the interplay of these two forces that determines the pattern of any adjustment. Professor Ayres concludes that there is no way, short of total destruction, in which metaphysics can prevent the encroachment, however gradual, of science as a way of [101] understanding and therefore specifying the patterns of human relationships.¹⁸⁷ And the reason for this is that the inherently developmental character of science means that it constantly proliferates beyond its immediate boundaries.¹⁸⁸ As a way of explanation, science encroaches upon new areas and therefore specifies the trespassed area.

The principle is simply that a pattern of human relations requires that the individuals involved in the pattern comprehend their respective parts in it. If the players in a game do not understand the rules, as those rules apply to them, then there can be no game. A pattern of correlated human activities requires that the persons whose activities are correlated understand their respective parts in the pattern of correlation. Otherwise the correlation breaks down. Structural institutions are patterns of correlated human activities in both the metaphysical and scientific senses and therefore come under this principle.

The institutionalist theory, as it now stands, may be outlined as follows: (1) Economics is concerned with the living-getting process. (2) The area of that process for which economics

¹⁸³ Ibid., pp. 283-307.

¹⁸⁴ Ibid., p. 298.

¹⁸⁵ Ibid., pp. 286.

¹⁸⁶ Ibid., pp. 284-285.

¹⁸⁷ Ibid., pp. 289, 307.

¹⁸⁸ Ibid., p. 297.

seeks to provide explanation and understanding is the pattern of human relationships. (3) The pattern of human [103] relationships takes visible form in structural institutions. (4) Structural institutions serve two kinds of functions: on the one hand, they serve to express and to give effect to the pattern of invidious distinctions among the persons who make up the institution; on the other hand, they serve as the organizational devices through which human activities are directed to, and give effect in, the process of providing the material means of life. (5) These two functions are the visible results of two different kinds of mental operations: the invidious-differentiation function and the "rules of the game" which give it effect are the result of conceptual operations which are based on, and seek optimum correspondence with, a preconception of the ultimate correctness of a pattern of invidious differentiation; the material-effect function and the "rules of the game" which give it effect are the results of conceptual operations which are based on, and seek optimum correspondence with, the run of the facts in the process of providing the material means of life. (6) Therefore, the character of a structural institution is the resultant of the interplay of these two ways of thinking, the former seeking optimum fidelity to a preconceived situation, the latter seeking optimum correlation, or efficiency, in an inherently developmental process. (7) The adjustment-determining power of the kind of thinking based on a certain pattern of invidious differentiation is a function of the coercive power of the persons giving active support to that pattern; the adjustment-[103]determining power of the kind of thinking based on the efficiency of the economic process is a function of the scientific correctness of the pattern of ideas. (8) The points of encroachment are specified by the emergence of the scientific understanding of any particular relation in the institutional structure on the part of the persons whose relations comprise the structure of the institution. (9) Therefore, the pattern of adjustment is prescribed by the pattern of encroachment on the non-efficiency-determined portions of the structure by the scientific method of explanation and therefore understanding and therefore verification and therefore specification in the minds of those persons whose relationships are specified in the structural institution.

This general theory is an explanation of the process of institutional adjustment. As such, it says nothing about the immediate procedures through which adjustments are effected. But it discloses that the latter is a matter of the devices used by those persons who actively support an established pattern. In the case in which those persons use physical force, the procedure of adjustment involves physical force; in the case in which those persons use persuasion, then the procedure involves persuasion. But in either case, the pattern of adjustment is specified by the development of scientific understanding since that is the only way in which the "account" can be "made up" with the physical circumstances which converge to bring on the problematic situation requiring adjustment.

[104] The theory outlined here presents two principles which may be applied directly to the problem at hand. The first principle is that the economic forces acting toward the adjustment of an institution are set in motion by the institution's infringement on the technological efficiency of the developing economic process and that the problematic character of the situation can be removed only by adjustment of the institution toward conformity with the technological situation in terms of technological efficiency. It is convenient to call this the principle of technological determination. The second principle is that the pattern of interdependence which is recognized by the people whose actions are correlated in a structural institution determines the specific character of the institution. It is convenient to call this the principle of recognized interdependence.

THE CONTEMPORARY COMPLEX

It has been noted that the last reformulation of the classical theory both claims and disclaims generality and foundation.¹⁸⁹ That formulation disclaims being inclusive and basic in that it disavows any pretension of displaying the real economic factors and their functional pattern;¹⁹⁰ it retains claim to generality and foundation in that it reveals the operation of price which is presented as the only way in which economic matters can be judged at all objectively.¹⁹¹ This conjuncture gives logical permission to restrict the study of economics to price analysis and at the same time to disavow any meaning beyond price. Thus, unshared significance is conjoined with exemption from responsibility for explaining the economic process.

The contemporary complex of economic theory is, in most part, the result of developments which follow that pattern of justification. The majority of contemporary theoretical developments are exclusively price analysis. Indeed, few that are not exclusively concerned with price have gained much [106] professional attention. Most of the contemporary developments of price theory have been directed toward refining the determination of equilibria toward which the forces of the open market drive prices under various conditions. Some such developments are characterized as mere exercises of idle curiosity in determining comparative prices in terms of other prices and are said to bear no other significance although the equilibria are attained by the operation of the basic forces which drive the economic process. Those forces are the human motive of utility and disutility (by whatever name). Thus the Marshallian conjunction of significance and extra-price irresponsibility is maintained. Equilibrium becomes "just equilibrium."¹⁹² And at the same time, it becomes

... an irony of history that marginal utility which - with its offspring, marginal disutility - was at one time claimed as a complete answer to all practical problems, should now be said to prove nothing.¹⁹³

But the contemporary developments in price theory which have received the widest attention are those which are thought to have significance and importance in that they give some indications of proper solutions of major economic problems which confront contemporary society.

The Keynesian theory already has been mentioned in this [107] connection.¹⁹⁴ That theory is one of price equilibria, but it is not a theory of the equilibria of utility and disutility.¹⁹⁵ And that, at bottom, is why the Keynesian analysis is unable to indicate policy without recourse to an outside theory of value. And that also is why the Keynesian analysis can consider the

¹⁸⁹ See p. 68 above.

¹⁹⁰ Cf., p. 61 above.

¹⁹¹ Loc. cit.

¹⁹² Lionel Charles Robbins, The Nature and Significance of Economic Science, Macmillan and Company, Ltd., London, 1935, p. 143.

¹⁹³ Erich Roll, op. cit., p. 412.

¹⁹⁴ See pp. 89-90 above.

¹⁹⁵ John Maynard Keynes, op. cit., pp. 3-22.

level of employment an involuntary variable. Its abandonment of the classical theory of value permits it to consider the level of employment as a problem. The theory of value to which recourse is taken in Keynes' discussion of policy is the same one that is incorporated in the institutionalist theory - that is, the technological efficiency of the economic process. The meaning of the Keynesian analysis in terms of price theory, as such, is not fundamentally significant. In fact, the position is stated explicitly that purchases (including labor) which enter as costs in further sales are made on the basis of marginal productivity (in terms of money price) of the items purchased.¹⁹⁶ But, as Keynes pointed out, this criterion is not possible where the costs or receipts are not subject to pecuniary accountancy. The points at which that impossibility occurs are (1) where items (labor) are purchased which are not supplied or withheld by virtue of comparative money costs and (2) where items (consumers' [108] goods) are purchased which do not themselves enter as money costs in relation to further expectations of sales. Both of these points are where human life enters as one side of the transaction. The first breaks down the classical theory of wages because there is no way in which the marginal disutility of working, however accounted, can be brought into equality with the marginal productivity of labor. The second breaks down the classical theory of the rate of interest because efforts to consume (or conversely, to save) do not have the same determinants as the rate of investment. In both cases, the classical theory breaks down where it cannot avoid directly representing human motivation in terms of price. Both disutility, when experienced directly by people, and utility, when purchased directly for realization, show no tendency to conform to the price pattern. In the Keynesian view, the only things which conform to the price pattern are prices. Thus the Keynesian theory does no violence to price theory as such; its infringement is on the price theory of value. The relation between the Keynesian analysis and the classical price theory is one of correction; the relation between the Keynesian theory of the level of employment and the classical theory of value is one of destruction.

Another contemporary development which has received wide attention and which has been held to have significance (again, because of indications in regard to proper policy) is the theory of monopolistic competition.

[109] Much of the theory of monopolistic competition as it now stands was anticipated by Professor A. C. Pigou of the University of Cambridge as early as 1912.¹⁹⁷ Professor Pigou's treatment is an effort to apply the utility theory of value to the problem of proper policy regarding the control of various kinds of economic enterprise, using as his criterion what would exist in terms of price, quantity, and quality under competitive conditions.¹⁹⁸ Professor Pigou concluded after extending his studies over many years that other arrangements of control can be worked out where competition (struggle for a market) enters as a factor.¹⁹⁹

When, however, we have to do with undertakings in which the competitive element is practically extinct, it would seem that, though various compromise arrangements are possible, and sometimes, for political or other reasons, may be desirable, the dominant issue is between clear-cut public control of private concerns and clear-cut public operation of public ones.²⁰⁰

¹⁹⁶ Ibid., passim, but particularly pp. 17-18.

¹⁹⁷ A. C. Pigou, Wealth and Welfare, Macmillan and Company, Ltd., London, 1912.

¹⁹⁸ Ibid., p. 266.

¹⁹⁹ A. C. Pigou, The Economics of Welfare, Macmillan and Company, Ltd., London, 1920, p. 339.

²⁰⁰ Loc. cit.

If nothing except “to make the values of marginal net products everywhere equal” were involved, the answer, as Professor Pigou understands it, would obviously be government ownership and [110] operation.²⁰¹ But there are other factors, for example comparative prices that must be paid for equal quality of management and labor,²⁰² the competition of the industry in question with other industries, the tendency to slow down technological advancement because of the risks involved,²⁰³ the likelihood that government ownership would result in inefficient combination of the factors because political subdivisions rarely coincide with the territory covered by optimum plant,²⁰⁴ the advantages to be gained by coordinating some enterprises such as laying water mains and paving streets,²⁰⁵ and the price that government would have to be paid for a going concern.²⁰⁶ Professor Pigou finally concludes:

Whether any particular monopolistic industry should be publicly operated or publicly controlled cannot be determined in a general way.²⁰⁷

However, he states that the matter must be decided on the basis of comparative efficiency, that efficiency cannot be determined by statistics, and thus that it is necessary to fall back on [111] “general rule” in such problems.²⁰⁸ In Wealth and Welfare, Professor Pigou gives this general rule:

The case for control is strongest when the monopolistic industry is, in great measure, rival to some other industry; the case for operation is strongest when such operation would make practicable an advantageous enlargement of the unit of production.²⁰⁹

This idea of the gains to be made in certain enterprises by enlargement of plant is furthered by Professor R. H. Montgomery of the University of Texas. His general statement of this point is as follows:

The plant should be expanded as long as the output which would be taken at incremental cost can be produced at lower average cost.²¹⁰

Where perfect competition prevails this situation is presumed to be brought about because incremental cost and average cost are identical at the point of lowest average cost. But where monopoly or monopolistic competition prevails, the individual enterprise ordinarily operates

²⁰¹ Ibid., p. 340.

²⁰² Ibid., p. 343.

²⁰³ Ibid., pp. 348-352.

²⁰⁴ Ibid., pp. 352-355.

²⁰⁵ Ibid., p. 356.

²⁰⁶ Ibid., pp. 357-359.

²⁰⁷ Ibid., p. 357.

²⁰⁸ Ibid., pp. 339-340.

²⁰⁹ A. C. Pigou, Wealth and Welfare, p. 289.

²¹⁰ R. H. Montgomery, “Government Ownership and Operation of Railroads,” Annals of the American Academy of Political and Social Science, Philadelphia, January, 1939, p. 143.

under conditions of decreasing costs. In that situation, Professor Montgomery points out that, under the Marshallian assumptions regarding the idea of consumers' surplus, the maximization of community gains is attained where incremental cost and the demand schedule have a [112] common price-value per unit.²¹¹ Both Alfred Marshall and Professor Pigou indicated this same conclusion. But Professor Montgomery points out in extension that in case the relation of cost and the demand schedule is such that the full use of existing plant permits profitable operation, and that the plant, by extension, can continue to operate under conditions of decreasing cost, then the plant should be extended until the quantity which can be sold at incremental costs can no longer be produced at decreasing average costs.²¹² But in those enterprises in which the demand schedule is below the lowest point on the average cost schedule, for the corresponding volume of production in the extended plant, the extension of plant and the establishment of price at the intersection of the demand and incremental-cost schedules results in permanent losses to the owner. Professor Montgomery concludes that unless the government adopts the policy of providing facilities for competing firms the only way in which the gains can be realized for the community is through government ownership.²¹³

Professor Montgomery further points out that decreasing-cost industries are usually those with proportionately high capital costs and that this circumstance inclines entrepreneurs in such enterprises to restrict the introduction of new [113] techniques.²¹⁴ This conclusion is directly opposite to Professor Pigou's conclusion on the same point, the latter being based on the timorousness that office holders experience about taking risks.²¹⁵

Disrapport between the policy indications of these theories of price under monopolistic competition and under monopoly and the theory of competitive price is not between the price theories as such. The differences in policy indications result from the introduction of the idea that conditions of monopoly and monopolistic competition are "normal" in that they occur under a general laissez-faire policy. It will be remembered that the classical theory of competitive price stands on the assumption that the human motives in economic activities find their most effective expression and exercise in the free market. The theories of monopoly price and monopolistic-competition price stand on exactly the same assumption. Also, these two types of price theory do not disagree on the tenet that competitive price reflects the optimum arrangement of the real economic factors and that where perfect competition exists it forces that arrangement to come about. The real difference lies in the idea that there are technological factors which are [114] causally antecedent to the institutional factors and which preclude institutional adjustments that would permit competitive price to work out its optimum. Thus these theories of monopoly price and of monopolistic-competition price maintain the competitive-price guide to the proper arrangement of the factors but abandon the assumption that laissez-faire brings about that proper arrangement.

This particular incidence of the technological situation on the free-market determination of price results from the reduction of the possible number of firms engaged in an industry. For, it is because of the limited number of firms that any individual firm can conceive the demand schedule of its product as anything other than the market price. The first inclusive statement of the determination of price under the various conditions which limit the number of firms was

²¹¹ Ibid., pp. 141-143.

²¹² Ibid., pp. 142-143.

²¹³ Ibid., p. 144.

²¹⁴ R. H. Montgomery, "Government Ownership and Operation of the Electric Industry." Annals of the American Academy of Political and Social Science, Philadelphia, January, 1939, pp. 43-49.

²¹⁵ A. C. Pigou, The Economics of Welfare, pp. 348-352.

made by Professor Edward Chamberlin in 1928.²¹⁶ His statement presents the determination of price at the point at which the cost schedule has only one common value with the demand schedule. In any case in which there is a struggle for the market, and in which entry into the field is free, the entry and exit of firms brings the demand schedule for each firm into tangency with its cost schedule, and prices are driven to the point of tangency.²¹⁷ [115] But, since the elasticity of the demand schedule for each firm is less than infinity, the point of tangency is higher than the lowest value on the cost schedule, and the volume of output is less than that which corresponds with the lowest cost. If free entry does not obtain, the struggle for the market, through adjusting price and quality or through advertising outlays, produces the same results.²¹⁸ The only way in which a profit can be assured is by having an advantage which cannot be duplicated,²¹⁹ that is, by having an absolute monopoly on some aspect of the operation. The only alternative assurance of a profit would be for all firms to refrain from a struggling for the market through price, quality, character of product, or increased sales effort. Thus, monopolistic competition, although it destroys profits, results in lower production and higher price than does perfect competition.

But these are the very same defects which principles of government ownership, based on natural monopoly, are designed to overcome. Since some monopolies are “inevitable” and since they result in these same defects, they have been held to be proper items of government ownership. But monopolistic competition is pictured as being “natural” in the same sense in which “inevitable” monopoly is so pictured - that is, in [116] the sense that it results from physical facts which are not subject to determination by policy. Then the principles which are based on monopoly’s deviation from the competitive norm would seem applicable also in the case of monopolistic competition even if the latter does not result in, nor tend toward, monopoly under a laissez-faire policy.

The contemporary complex of economic theory is characterized by the two lines of development which are outlined here and by various combinations of the three basic theoretical developments outlined in the previous chapter.

Both lines of development in contemporary price theory deviate sharply from the price theory of value which is the core of the classical general theory. Both seek other criteria than price for valuation purposes. The criterion which is used in the Keynesian analysis is the level of employment; the criterion which is implied in the theory of monopolistic competition is the ratio between production and possible production. They represent two different approaches to the central problem of the overall efficiency of the economic process. But in each case, reliance on that theory of value necessitates going outside the theoretical structure for policy determination. Both reject the general theory the development of which has provided the tools with which they are constructed, and neither recognizes the general theory built on the theory of value which they have adopted. Both lines of development in contemporary economic price theory are thus peculiarly [117] orphan. They have, in effect, rejected one general theory because of incompatibility, and their place in the general theory the criterion of which they have adopted is not yet worked out. For that reason, perhaps, specific principles concerning the problem of government ownership based on these two lines of development have not been formulated. But both of these developments imply the necessity and possibility of institutional

²¹⁶ Edward Chamberlin, The Theory of Monopolistic Competition, Harvard University Press, Cambridge, 1938.

²¹⁷ Ibid., pp. 81-100.

²¹⁸ Ibid., pp. 74-81.

²¹⁹ Ibid., pp. 65-68.

adjustment and therefore permit the problem of government ownership to be considered in relation to them.

In contemporary economic discussion, the problem of government ownership has received wide attention. The proponents and opponents, in each instance in which the problem has arisen, have felt called-on to give reason for their positions. As has been shown the theoretical formulation of opposition to government ownership in any particular instance, or in general, has been able to find basis in the classical general theory. But the proponents of the government ownership of any particular enterprise, including the classical theorists, have been forced, in each instance, to base their case on propositions which are not subject to consideration in terms of the classical general theory. And this is true of the contemporary theorists who have discussed the problem no less than of their predecessors.

In most current discussions of the government ownership of any particular enterprise, the arguments of the proponents generally have run somewhat as outlined by Mr. Stacey May in [118] the Encyclopedia of the Social Sciences.²²⁰ Those arguments may be listed as follows: (1) that the products of the enterprise are for government use, (2) that the enterprise is necessary to the economy but that private capital cannot or will not bring it into being, (3) that the enterprise should be government-owned in order to conserve natural resources, (4) that the postponement of returns precludes the enterprise being undertaken by private firms, (5) that the enterprise is necessary for purposes of military strategy, (6) that the enterprise will serve as a source of public revenue, (7) that government ownership of the enterprise is necessary in order to control the consumption of its product which, if used unrestrainedly, does harm to the economy, (8) that private motivation in the enterprise is toward cutting costs which are necessary in order to safeguard the public health, and (9) that the enterprise is peculiarly ill-adapted to competition in that under competition it results in inefficient operation.²²¹

Mr. May suspects that these arguments are really excuses for collective action, or reasons offered as sufficient for it, rather than being "in any specific case actually the efficient causes of the collective action ..."²²² He concludes that [119] "it is not so much theoretical support as evidence of profitable achievement which led to an ever wider extension of government activities."²²³ But in the adjustment of structural institutions, and unquestionably in those cases which require specific legal designation, the point of departure is based, at least ostensibly, on "evidence of profitable achievement." In such adjustments, "sufficient reasons" are the efficient causes at the stage in the adjustment process at which people must make choices. In economic theory, all any reason may ever accomplish is through serving as an efficient cause of human action. This, in fact, is seen to be the causally efficient relationship between the classical general theory and the problem of government ownership. In so far as a theory serves as a sufficient reason for making up peoples' minds on the matter, it serves as an efficient cause in the process of adjustment. For it is quite clear that the decisions of people specify the particular immediate adjustment. And all human actions which may be characterized as purposeful can be so only by virtue of the fact that there is "sufficient reason" to direct the action. Otherwise, the action cannot be said to be purposeful - it becomes merely a "random" action. The "evidence" may be misconstrued in a "sufficient reason," but it forms the substance of the reason and it is given causal effect in institutional adjustments only through becoming a

²²⁰ Stacy May, "Government Ownership," Encyclopedia of the Social Sciences, Vol. 7. The Macmillan Company, New York, 1937, pp. 111-119.

²²¹ Ibid., p. 112.

²²² Ibid., p. 113.

²²³ Ibid., p. 114.

sufficient reason. The evidence may be misconstrued, but it [120] cannot be absent. So the “sufficient reasons” of which Mr. May speaks are not, as such, disqualified from serving as efficient causes in determining the government ownership of any particular enterprise.

Appreciation of the fact that the determinants of adjustments in structural institutions must take effect through the comprehensions of people has been the occasion for at least one important study of such adjustments in certain economic enterprises.²²⁴ A group of thirty professional scholars collaborated during a period of five years in investigating the development of various instances of collective enterprise and published their report in 1943. Their report includes the pertinent data pertaining to twenty enterprises which have become, or are becoming, socialized in the sense that discretionary control over them is vested in groups of people who do not stand in the relation of private owners investing capital in the expectation of profits.

The investigation was designed and executed to throw light on the “dynamics of socialization.”²²⁵ The general hypothesis in terms of which the study was set up is that the adjustments under consideration are made in response to group interests. And the particular hypothesis which grew out of [121] preliminary studies and which was to be tested in the investigation is that the “primary factors in socialization” are “to be found in the pressure of consumer and general public interests ...”²²⁶

Factors in socialization are thus thought of in terms of human needs and interests and related group pressures, such as are open to fairly direct observation. But it was recognized that identified with and largely shaping these interests are industrial technology (including means of transportation and communication), prevailing modes of property, operation of price and market mechanisms, standards of living, the system of politics, government, and civil liberties, influences of educational and other social institutions, current mores and folkways (in addition to those indicated), land and other geographic conditions, inborn human traits and capacities, and the whole system of production and distribution with its personnel and capital equipment growing out of such factors.²²⁷

Thus the whole social and economic complex was recognized as playing in on the problem, but the “concept of group interests” was chosen because it was thought to reflect “better than any other the endless variety of causes and circumstances.”²²⁸

Professor Seba Eldridge of the University of Kansas, who organized the inquiry, concluded from the studies and reports on special problems that the factors which act as “the final and decisive controls of the process” are “consumer and public interests as these are interpreted by consumers and [122] citizens themselves.”²²⁹ Professor Eldridge surmised also that, where consumers and citizens are comparatively free, this same conclusion is indicated by general observation.

²²⁴ Seba Eldridge et al., Development of Collective Enterprise, University of Kansas Press, Lawrence, 1943.

²²⁵ Ibid., p. 3.

²²⁶ Ibid., p. 4.

²²⁷ Ibid., p. 6.

²²⁸ Loc. cit.

²²⁹ Ibid., pp. 541-542.

From the proposition that consumer and citizen choices are comparatively free, it follows that collective enterprises and individually owned enterprises, too, grow in accordance with their decisions, or what they take to be their interests. Consumer-citizens are the selective force, the ultimate control, in this very important matter.²³⁰

It should be noted that the consumer-citizen principle, as stated, neither contradicts nor supports any of the principles already considered. All of the other principles are statements of situations which stimulate recognition, or force people to recognize, that an enterprise should be government-owned. Those principles are conceived as sufficient reasons for government ownership, and they may serve therefore as causal factors in the actual determination of government ownership. If the enterprise in question is technologically necessary to the physical provision of the means of life and if the “should” takes the form of the only recognized control arrangement that will permit the enterprise to be carried on, then government ownership is without question the answer, regardless of classes or whatever. In those instances in which the technological necessity is less clear or in which the technological possibility [123] of alternative control arrangements is recognized, the matter becomes a debatable question. But the outcome of the debate is the form of ownership specified for the enterprise. In either instance, the government ownership of an enterprise becomes “what is” by virtue of having become recognized as “what ought to be.” Thus the establishment of the government ownership of an enterprise points the inescapable connection in economics between theory and policy and between policy and practice.

The consumer-citizen-interests principle, on the other hand, is a statement of whose minds are made up. It is phrased in terms which indicate a presupposition that consumers and citizens determine their interests differently, in view of the same facts, than do owners, managers, and laborers. But since almost all consumers and citizens are either owners or managers or laborers, and since Professor Eldridge does not intend to say that an individual’s interests as a consumer-citizen overshadow his particular interests as an owner or a manager or laborer, it would seem that what the principle really is saying is that the socialization of an enterprise is in response to the interests of people outside that particular enterprise. This principle’s contribution, in terms of the other principles, seems to be, then, that the conditions by virtue of which an enterprise can be more efficiently operated under government ownership are given recognition and effective expression through people who are not directly engaged in that particular enterprise.

²³⁰ Ibid., p. 546.

EXAMPLES OF GOVERNMENT OWNERSHIP IN
THE UNITED STATES

The collaborative study mentioned in the preceding chapter is important to the present study not only because of the conclusion which Professor Eldridge draws from it but also because it contains an important and extensive collection of data concerning particular government-owned enterprises.²³¹ In searching for pattern in the determination of government ownership, the present study is enabled to rely on that collection of data. The data which were collected for that study may be used also as a referential check for the principles of government ownership which have been proposed in economic literature.

Those principles, in turn, serve the present study as a point of departure in looking for pattern in the sequence of events leading to government ownership in particular enterprises.

Classification of the Principles

The principles of government ownership may be classified in any number of ways, but they fall most readily into two [125] general categories. First, some principles are statements of situations which specify government ownership without recourse. That is to say, they leave no choice in the matter. When those conditions prevail, there is no alternative to organizing the enterprise so that the body politic exercises the functions of ownership. The other general category includes the principles which propose to state the conditions which are sufficient to motivate the shift of an enterprise to government ownership even though alternative organizations of the enterprise are possible.

The conditions which specify government ownership without any possible exception are all predicated on the supposition that the enterprise in question is absolutely necessary to the continued functioning of the economy. All of them are statements of conditions which make it impossible for the open market, operating on the profit motive, to provide for the initiation and continuation of the enterprise.

Adam Smith evidently had something of the sort in mind when he observed that some enterprises cannot return the cost of the investment to an individual or small number of individuals but may return much more to society at large.²³²

John Stuart Mill's dictum that the necessity of some things cannot find expression as effective market-demand covers the same idea. The benefits of things like education and [126] scientific research, although they return benefits far in excess of any expenditure on them, and although the actual process of production cannot be carried forward without them, fall "so insensibly" upon an individual that he is not motivated in the ordinary market sense.²³³ The open market, then, cannot provide such necessities.

Alfred Marshall's statement of the three conditions under which a necessary enterprise must be government-owned covers the same ground.²³⁴ In case the supply price is unavoidably above the demand schedule at all points, it is obvious that private initiative motivated by profit

²³¹ Cf., pp. 120-123 above.

²³² Cf., pp. 21-22 above.

²³³ Cf., p. 53 above.

²³⁴ Cf., pp. 67-70 above.

would neither create nor operate the enterprise. And in case the supply price is driven above the demand schedule by risks which can be avoided by the body politic acting through its government, the same obvious conclusion must be drawn. Also, there are cases such as public streets in which Marshall thought that the plain physical requirement of constant and universal use forbids private ownership and operation irrespective of the profit possibilities.

Two determinants listed by Mr. Stacy May as having wide credence may be placed in this category. They are the extreme postponement of returns in a necessary enterprise and the destruction or depletion of a necessary resource if [127] it is left to private exploitation.²³⁵

It should be noted that each of the eight principles listed in the “necessity” category is a function of what Veblen called “the state of the industrial arts.” It goes without saying that such things as “natural resources” and things like streets and harbors are instrumental developments and that they are meaningful by virtue of their function in the process of providing the material means of life. Even such things as education can be thought of as “absolutely necessary” only by virtue of the fact that an illiterate population cannot carry on the economic process in the current stage of technological development. In so far as consideration of government ownership is restricted to “absolute necessity,” there can be no doubt that its specification is prescribed by the state of the industrial arts.

But it should be noted also that the prescription, even in the case of “absolute necessity,” is not automatically transmitted into the specified institutional structure. It can be and is so transmitted only through people making up their minds on the matter. The import of the “necessity” characterization is that, in some instances, people can survive and make up their minds on no other basis than that which is specified by the physical circumstances.

[128]The second category of the listed principles may be described as including those conditions which are thought to serve as “sufficient reason” for making up peoples’ minds about the ownership of enterprises which are not considered absolutely necessary or for which alternative control organizations are possible. This category may be subdivided in terms of the grounds on which the determinants serve as sufficient reasons. The determinants in the second category are founded on three such bases which are as follows: greater technological efficiency, protection of the consumer, and social or political security.

The technological-efficiency appeal has been expressed in many ways. It includes all of the determinants listed in the first category when applied to enterprises which are not absolutely necessary in the technological sense. It is the content of Senior’s and Jevons’ principles which turn on accomplishing greater “results”²³⁶ and on effecting “great advantage and economy.”²³⁷ In the opinion of John Stuart Mill, it is what is reduced in case a privately owned enterprise must be organized so that ownership is divorced from its control function and in the case of an inevitable monopoly.²³⁸

[129] An appeal based on protecting the consumer cannot be separated entirely from the technological-continuity frame of reference. But it may be used without any explicit reference to, or deliberate correspondence with, that basis. It is in part what is connoted in Senior’s principle of protecting those who cannot protect themselves,²³⁹ and it is the basis of the

²³⁵ Cf., pp. 117-118 above.

²³⁶ Cf., p. 38 above.

²³⁷ Cf., p. 59 above.

²³⁸ Cf., p. 52 above.

²³⁹ Cf., pp. 40-41.

maximization-of-consumer-surplus principle.²⁴⁰ This appeal may be used also in those cases, such as water supply in which private-profit motivation may result in harm to the public health. An appeal of this sort is founded on the idea of maximizing consumer satisfaction or minimizing disutility.

The social-and-political-security appeal usually is framed in reference to military strategy or to the control of a product which, if left to private initiative, may result in social and political danger by producing moral turpitude and by allowing moral turpitude to be expressed in ways which endanger the social and political certitudes. This appeal, like the preceding one, cannot be separated entirely from the technological-efficiency concept. Indeed, the appellant may directly correlate the two. But it likewise may be used with reference to any other conception of social and political certitude which does not result in technological impotence. In the latter case, the ill effects of private ownership are [130] thought to work out through moral turpitude.

The three frames of reference in which the proposed determinants of government ownership have been thought to be meaningful are technological efficiency, consumer satisfaction, and moral efficacy. It has been indicated that the last two can be defined and stated in terms of the first. But it should be emphasized that the converse does not hold true. Technological efficiency cannot be stated in any terms other than the scientific evidence in the run of the facts. That is why the concept of "necessity," in the sense of being unavoidable, is restricted to the technological frame of reference. And that, at bottom, is why no "inviolable" principle of government ownership has ever been framed on any other basis.

The Principles and the Run of the Facts

The three frames of reference in terms of which the principles of government ownership have been proposed are nothing less than the theories of value which have prevailed in capitalistic history. They are the concepts which have been used in identifying economic validity. As such, they have served as the guiding principles in making up people's minds about the matter of government ownership. And, as has been observed, the determination of government ownership for an enterprise in a capitalistic economy requires that a specific decision be [131] made to that effect - that particular pattern of control-organization must be chosen for that enterprise. An inquiry into the determinants of the government ownership of a particular enterprise should run, then, in terms of how the conditions of that enterprise enter into making up people's minds to that effect. There are, then, two general aspects of such an inquiry: (1) the theory of value in terms of which decisions are thought to be valid, and (2) the situations or conditions which, when considered in those terms, result in the decision for government ownership.

The economic enterprises which are cited in this chapter have become government-owned at various stages in American history. Selection in this regard is deliberate. Since the present study is concerned with general pattern in the determination of government ownership in a capitalistic economy, it is thought best to avoid the exclusive consideration of the process in any one period. Accordingly, the examples are cited somewhat in the chronological order of their determination as government-owned enterprises.

Streets and Highways. The government ownership of streets and highways has long been a settled matter. There always have been some privately owned streets and roads, but they have become such a minor fraction of the total that the phrase "streets and highways" has come to connote government ownership.

²⁴⁰ Cf., pp. 67-68. 111-113 above.

[132] From the earliest colonial days in America, the most important streets have been public operations, but the roads were at first left to private initiative. From that beginning, public streets and roads in the United States have been expanded to approximately 3,425,000 miles representing an investment of about \$20,000,000,000.²⁴¹

These roadways connect every separately controlled piece of real estate in the United States. They are the guarantee of physical entry and exit for every productive unit of physical property in the nation. Quite certainly, the economy could not be carried on without them - they are "absolutely necessary."

It also is quite certain that any known arrangement for collecting a price directly for each usage of the roadways would reduce their efficiency. A full try was made on that basis. By 1821, some 4,000 miles of turnpikes capitalized at \$11,000,000 had been built in New York State alone; and by 1832, about 2,400 miles had been built in Pennsylvania.²⁴² Subsequently, the states of New York, Pennsylvania, New Jersey, and Maryland chartered 705 companies which invested approximately \$10,000,000 in toll roads built of lumber.²⁴³ Some of these roads were purely promotional schemes which were designed only [133] to acquire funds by selling stock, but most of them had some basis in terms of estimated demand and cost schedules. They were built where the demand already existed or was expected immediately in terms of physical traffic. To have done so would have required a pay station at every farm and household and shop.

Also, as adjoining land was enclosed, and therefore as alternative routes were less and less available, the payment of tolls came to appear as a direct infringement of personal freedom of movement. As such, it violated the common sense and customs in communities in which the pattern of mores and folkways had been fashioned in a frontier environment where movement was free. The toll gates became a common object of disapproval at the same time that the roads were considered a blessing.

Long before anything approaching full use of any of the toll roads was attained, and therefore long before it could be determined if a road actually could possibly support itself in the open market, public opinion was finding effective expression, through political action, in specifying public ownership and operation. The Constitution of 1789 delegated to the federal government the "power to establish post-offices and post-roads,"²⁴⁴ and Congress, in the act admitting Ohio to [134] statehood in 1802, specified that five percent of all receipts from sales of public lands within Ohio be allocated to the construction of roads.²⁴⁵ But the road requirements of the westward movement far exceeded the provision of funds by such arrangements. It was perfectly clear even then that the provision of roads must precede economic development of interior regions, that to await the development of sufficient traffic to stimulate private provision of toll roads would be to strangle the economic development of those regions where waterways did not provide ready-made shipping and trading avenues. Without roads, the interior regions of the nation would have to remain on a locally self-sufficient basis, and the water-route trading centers would be denied the increased custom. But "strict construction" of the Constitution forbade appropriations for "internal improvements"; and even if the money market would provide the states with funds to construct highways which were not designed entirely for the exclusive benefit of individual states, the state government were disinclined toward it. By 1806, pressure

²⁴¹ John A. Vieg, "Roads and Streets," Development of Collective Enterprise., p. 36.

²⁴² Ibid., p. 41.

²⁴³ Loc. cit.

²⁴⁴ The Constitution of the United States of America, Art. I, Sec. VIII, par. 7.

²⁴⁵ John A. Vieg, op. cit., p. 38.

on Congress was sufficient to secure passage of the first appropriation for a national highway. From that year to 1856, the United States Government spent \$7,000,000 on the Cumberland Road running from Cumberland, Maryland to Vandalia, Illinois.²⁴⁶

[135] The advent of the railroads in the 1830s and their rapid development up to about 1890 returned the highway question back to the states where the problem took the form of "getting to the railroad." From about 1850 to about 1890, the road problem was almost altogether restricted to the states. The problem of getting to the railroad became an important one, and it began to be considered more and more on a statewide basis as the railroads approached their final pattern in the 1880s and 1890s. New Jersey began a plan of state-aid to local jurisdictions for road construction in 1891, and Massachusetts assumed responsibility about ten years later for a state system of primary highways connecting all parts of the state.²⁴⁷

But the movement for a national network of highways in the modern sense had its beginning among bicyclists.²⁴⁸ The bicycle was, and is, a good-road vehicle, and by 1900 there were in the neighborhood of 1,000,000 people in the United States who used them as their major means of personal transportation. The League of American Wheelmen, which was formed in 1890, agitated for improved highways through its publications and its membership. Other groups were interested as shown by the attendance at the first national Assembly for Good Roads Promotion in 1902. In attendance at that conference were delegates from state good-roads organizations, boards of trade, [136] farmers' organizations, agricultural colleges, wheelmen's leagues, and railway associations. The delegates formed the National Good Roads League which held its first convention the next year in Washington, D. C. During the same year, Congress created the Office of Road Inquiry in the Department of Agriculture.²⁴⁹

The automobile was entering the scene about the same time. In 1895, there were fewer than 100 automobiles in America; by 1905, there were 15,000; by 1937, there were 31,000,000, almost an automobile for every four people in the nation.²⁵⁰ The entire population could be put on wheels at the same time. The automobile was a fact which could be argued with only unsuccessfully. It forced the highway question back to national scope, and it even placed considerable pressure on the independent authority of contiguous nations. Correlative decisions had to be made for the several states and, to some degree, for adjoining nations. The most obvious way for getting correlation among the states was through the federal government. The pressure in that direction resulted in the federal-aid act of 1916 which, with its subsequent amendments, looks toward developing the road network of the entire nation into one, integrated whole through Federal grants-in-aid to the states to assure [137] development and through qualifying specifications to assure integration, physical quality, and continued expansion.²⁵¹

Did streets and highways become government-owned for reasons which find expression through the market process? Quite clearly, the immediate specification in each case was through people making up their minds that government ownership was the proper pattern of control organization. But why did people decide on that answer? Was there insufficient private capital? No, road bonds have always found a ready market. Was it that consumers could not pay for the service? No, the users of streets and highways have paid and do pay for the

²⁴⁶ Ibid., p. 42.

²⁴⁷ Ibid., p. 43.

²⁴⁸ Loc. cit.

²⁴⁹ Loc. cit.

²⁵⁰ Ibid., p. 45.

²⁵¹ Ibid., pp. 46-47.

service.²⁵² Were the prospective returns postponed beyond the market vision? No, the returns are current throughout the life of the enterprise. Did divorce between ownership and control reduce the effective exercise of the ownership motive? No, this seems to have had nothing to do with the matter. Was it to maximize consumers surplus? No, the greatest prospective return would seem to be at the maximum utilization of plant. Was it to control the use of the product - to control traffic? Clearly not. The government ownership of streets and roads seems to have been occasioned by situations which do not find [138] expression through price.

First, roads became a physical necessity and were recognized as such.

Second, the market process did not keep up with the recognized need. The market failure in this regard evidently was not occasioned by unwillingness or inability of consumers to pay for the product. Nor was it a dearth of the materials and labor and capital funds required in construction and operation. In those cases in which the road was built originally under government ownership, the failure of private initiative was an entrepreneurial, not a consumer, failure. This seems to have been, at least in part, the result of both financial and physical inability to collect for each individual consumption of the product. Because of the money-income arrangements of the economy at large, collection had to be on a different basis than a sale of each individual act of consumption. But such an arrangement takes on the character of a tax, and the people had learned well the results of paying a tax to anyone not under their selective control. This was so obvious that the problem was never mentioned in that connection. The same set of circumstances spelled the failure of toll roads even in those cases in which they were successful private enterprises in the sense that they were profitable. The physical needs of roads could be better met by payment through taxes than by sale of the service. And, as this became apparent to the community at [139] large, politicians were not long in using it for political purposes.

The general pattern of the institutional adjustments relating to streets and roads has been in the direction of setting up the control devices which permit the optimum physical correlation between roads and the remainder of the economy.

This pattern of adjustment has not been restricted to the problem of ownership; it is apparent also in relation to the level of organized efforts to get more and better roads. As long as the physical problem was a local one, the policy problem was restricted to that level; when the physical problem became a national one, the policy problem shifted to that level.

In each instance, the general pattern of the causal sequence seems to have been as follows: (1) the development of a physical need, (2) recognition of that need by the people involved, and (3) selection of the most efficient, available control-device. The first step was a matter of people and geography and invention. It was occasioned in some measure by people pushing beyond the area of the price-determined economy because of comparatively superior living-getting possibilities in the relatively non-price frontier-economy. Thus, price determinations may be thought of as a causal factor. But that relationship was one of restriction and limitation rather than one of positive dynamic. The first step bears out the principle of technological determination. The second step was a matter of enlightenment. It bears out the principle of recognized [140] interdependence. The third step was a matter of accommodation within the limits imposed by the first two steps and by those aspects of the total institutional structure which did not enter the problem as items on which choices could be made. For example, the decisions to place roads under government ownership did not entail any prospect of abandoning payment by the people who used the roads generally, nor did it involve any idea of the roads not being paid for in money terms. Thus the government ownership of roads was made with minimum dislocation to the institutional structure generally.

²⁵² *Ibid.*, pp. 50-51. The net receipts from automobile license fees and gasoline taxes for the year 1939 was \$1,234,150,000.

Harbors and Waterways. The same general pattern of adjustment which has been seen in the ownership of streets and roads may be observed in the case of harbors and waterways.

Natural harbors and waterways, like urban streets, began on the basis of collective control, and the pattern has never been seriously challenged.²⁵³ Government operational control was recognized early in the common law and reinforced by the Constitution.²⁵⁴ Within a month after the Constitution went into effect, Congress passed “an act for the establishment of lighthouses, buoys, beacons and public piers”²⁵⁵ as [141] government operations. Since then, the federal government has spent more than \$2,500,000,000 in the construction of harbors and waterways.²⁵⁶

Although the proprietary relationship between government and natural waterways has never been seriously challenged, there has been no prohibition of private construction and operation. Before railroads attained the degree of mechanical perfection²⁵⁷ which permitted them to become the primary carriers of the economy, many canals were built by private firms, and some of them survived as commercial enterprises until quite recently. The Chesapeake and Delaware canal was privately owned until 1919, the Cape Cod canal until 1927, and the Dismal Swamp canal until 1929.²⁵⁸ A few small toll-canals still are privately owned, but all major waterways in the United States are now government-owned and government-operated.²⁵⁹

Agitation to develop a waterway under government ownership or to take over one already constructed has been initiated, in most instances, by those who stood to gain most by the existence of the enterprise or by the government ownership [142] of it.²⁶⁰ But, in each instance, the “sufficient reasons” offered for the action have been in terms of increased benefits to the economy at large. In the plea for free use or lower transportation costs, the theoretical significance of the argument has been that rates which were required or permitted under private ownership disallowed other economic developments the existence of which would increase the aggregate of economic benefits;²⁶¹ in the case of pleas for soil conservation, flood control, and recreation, the theoretical significance has been that the market process offered no way in which demand for these benefits could find expression as a causal force.²⁶² In either instance, the argument has been that the economic contributions of waterways could not be realized through the open market.

²⁵³ Harold Kelso, “Harbors and Waterways,” Development of Collective Enterprise, pp. 55-67.

²⁵⁴ Ibid., p. 65 n. See also The Constitution of the United States of America, Art. I, Sec. VIII, par. 1, 3, 7, 16, sec. IX, par. 6, Sec. X, par. 2.

²⁵⁵ Harold Kelso, op. cit., p. 55.

²⁵⁶ Ibid., p. 65.

²⁵⁷ The railroads could hardly serve as a large network without air brakes, the rigid wheel-and-axle combination and the inclined-tread differential permitted by it, signaling and switching devices, and correlated accounting methods.

²⁵⁸ Harold Kelso, op. cit., p. 55.

²⁵⁹ Ibid., p. 65.

²⁶⁰ Ibid., pp. 57-61.

²⁶¹ The U. S. Government gave explicit recognition to this principle when it decided in 1908 to develop the Ohio River on the assumption that it would “breed traffic.” Harold Kelso, op. cit., p. 59.

²⁶² The TVA is the outstanding example of this situation. David E. Lilienthal, Democracy on the March, Harper and Brothers, New York, 1944.

Government owned waterways have been greatly extended for military reasons and for “pump-priming” purposes. The military-advantage argument has played an important role from the very start. The Erie Canal was laid out with due consideration to possible invasion by the British.²⁶³ Ship canals such as the Chesapeake and Delaware, the Cape Cod, the Panama, and the proposed Florida waterway have been advocated as lanes for fighting ships,²⁶⁴ and the internal waterways generally have been proposed for military-supply reasons. Work-relief expenditures on rivers and harbors totaled about \$525,000,000 from 1933 to 1941.²⁶⁵ The work-relief motive has not been offered as a reason for government ownership; rather, it has been the occasion for increasing expenditures on whatever kinds of projects were established already as government functions.

But such extensions, in the case of river developments, brought into public attention the possibility of correlating the several functions which such developments might serve. It was argued that electric power, water and soil conservation, irrigation, flood control, and recreation could all be accomplished in some instances by correlating the technical installations so that all these functions would be mutually supportive. It was argued further that, since the optimum correlation of these functions would not be in the interests of private entrepreneurs, it could be accomplished only through government ownership. The arguments against these possibilities under government ownership received their weakest support under conditions in which the necessity for relief from unemployment [144] was apparent to everybody. It was under such conditions that the Tennessee Valley Authority was initiated as an experiment in correlating the functions which a river system might be made to serve by direct planning toward that end.

By the end of 1944, expenditures on the TVA project exceeded \$700,000,000.²⁶⁶ Of this total, \$450,000,000 was allocated to power investment and the remainder to a 650-mile navigable channel and to flood control for the entire Tennessee River basin. For the fiscal year ending June 30, 1943, a surplus of \$13,000,000 was realized from the sale of electricity after paying all operating costs and \$3,000,000 in taxes and after setting aside \$6,000,000 for depreciation.²⁶⁷ On the matter of returns, the Chairman of the TVA has stated:

Even if the total investment for power, navigation, and flood control - the entire \$700,000,000 - were all charged against power, revenue from electricity would repay the entire amount, in less than sixty years.²⁶⁸

.....

But there is an additional value that attaches to the power facilities of the river not to be overlooked in resource development. For the total investment of \$700,000,000 in river development produces not only power, but also the benefits of navigation and flood control. By combining these three functions in single structures that serve all three purposes, so that costs common to all three may be shared, great economies are produced. Navigation and flood control benefits have thereby been secured at a lower cost. Similarly, because navigation and flood control are combined in [145] the same structure with power, power is produced more cheaply than if the

²⁶³ Harold Kelso, *op. cit.*, p. 56.

²⁶⁴ *Ibid.*, p. 57.

²⁶⁵ *Ibid.*, p. 61.

²⁶⁶ David E. Lilienthal, *op. cit.*, pp. 45-46.

²⁶⁷ *Loc. cit.*

²⁶⁸ *Ibid.*, p. 50.

sole purpose of the structure were power.²⁶⁹

The same authority estimates that the rate of money savings in shipping costs alone already exceeds the rate of expenditure in providing both navigation and flood control.²⁷⁰ Thus the whole project is a “going concern” in the financial sense although its greatest benefits are thought to be incalculable in money terms.²⁷¹

In the case of waterway developments, it seems that the beneficiaries of the enterprises are both willing and able to pay for the benefits. Here, as in the case of roads, the decisions in favor of government ownership resulted from conviction that entrepreneurial motivation would not result in those benefits even though both the ability and willingness to pay were sufficient to meet the full costs of the enterprise, including the costs of the entrepreneurial function of organization and direction. The decisions to organize and direct the development of waterways under government ownership have not been choices as to whether or not the product would be paid for. Rather, they have been choices between alternative methods of organizing and directing certain physical processes.

Those processes do not lend themselves to ordinary [146] market determination for several reasons. First, some functions of waterways cannot be made to bring in a cash return through sales of the product.²⁷² Flood control, water conservation, and soil conservation are examples. Sales of none of these can be individualized. Second, the optimum correlation of multiple functions cannot be achieved through direct sales of the product. Third, the enterprise sometimes must precede the developments which would permit reasonable use of plant, and the developmental period may be relatively long.²⁷³ Fourth, the money costs of construction and operation sometimes cannot be estimated in advance.²⁷⁴

Failure of the entrepreneurial function under private ownership of waterway developments still leaves the problem of why government was chosen as the alternative. The function of government traditionally has been synonymous with the exercise of the power of mandamus and the power of injunction. In the event that either power is involved, government is the most nearly obvious choice. And in any case in which the product cannot be withheld from the individual in order to coerce payment, as in flood control, the direct exercise of both mandamus and injunction is indicated. This is particularly [147] pointed in those instances in which the military factor is important. In addition to the power of mandamus and injunction, and partly because of them, governments have comparatively great financial-investment power. The taxing authority alone assures the financial backing of the entire community. In the case of a sovereign government, the money-defining authority gives unlimited power to pay in terms of its legally designated monetary units. Some waterway developments have involved very large monetary outlays, larger than any non-business institution other than government could make available.

²⁶⁹ Ibid., p. 49-50.

²⁷⁰ Loc. cit.

²⁷¹ Ibid., p. 52.

²⁷² Harold Kelso, op. cio., p. 64.

²⁷³ Loc cit.

²⁷⁴ Loc. cit.

Waterworks and Sewage Disposal. Urban communities in the United States require an average daily supply of about 100 gallons of water per capita.²⁷⁵ Twenty to 50 gallons of that supply must be satisfactory for home consumption; and, since the employment of more than one set of water mains is more costly than purification, the entire supply usually is brought up to the standards of purity required for direct human consumption. Quite obviously, anything which affects the quantity or quality of the water supply immediately becomes a concern of the utmost importance to the entire community.

Of equal importance and concern is the disposal of water after its pollution through use by the community. And [148] closely related to the disposal of waste water is the problem of waste disposal generally. An increasing proportion of waste removal has been waterborne. The earliest sewers were designed for surface drainage only, but more recent engineering developments have permitted the use of sewers for the disposal of most wastes which are soluble or which have a lower density than water and can be reduced to small particles.

The earliest waterworks in the United States were privately owned. Of the seventeen plants in existence in 1800, only one was constructed under government ownership, and one of those seventeen plants became government-owned as late as 1923.²⁷⁶ From 1800 to 1939, the number of waterworks increased from seventeen to 12,760, and the percentage of those plants which were government owned increased from 5.9 to 73.²⁷⁷

Sewage-disposal installations have shown a similar trend except that they were developed later and have been more nearly altogether government-owned. The first comprehensive, water-carriage, sewage-disposal system was started in the City of Chicago in 1856 after that city's representatives reported on a study of the installations in Hamburg, Germany where a similar system had been installed in 1843.²⁷⁸ In 1938, only [149] 7,490 of 16,303 incorporated communities in the United States had sewage-disposal facilities. Of this number only 255 were privately owned.²⁷⁹

The debate over the form of ownership of waterworks was at its height from about 1875 to shortly after the turn of the century. Private companies fell into disfavor in part because of higher rates granted in earlier franchises. Capitalization of earnings under those rates made it extremely difficult to regulate prices, and this resulted in continuous controversy and discontent. As late as 1932, rates of privately owned firms were from 58.9 percent higher for 5,000 gallons per month to 20.7 percent for 1,000,000 gallons.²⁸⁰

Health and hygienic considerations have given some impetus to the government ownership of both waterworks and sewage-disposal plants.²⁸¹ Public health authorities and private physicians have worked through every educational means at their disposal to impress upon everybody the importance to community health of the proper provision and use of water and waste disposal. But the explanations offered by the experts have run in terms of prophylaxis and physiology, not in terms of effective demand and cost schedules. Medical experts thus [150] have helped in convincing the community at large that the comparative need of an item which directly affects the health of the community is not necessarily reflected in

²⁷⁵ W. Rolland Maddox, "Water and Sewerage Works," Development of Collective Enterprise, p. 82.

²⁷⁶ Ibid., p. 84.

²⁷⁷ Loc. cit.

²⁷⁸ Ibid., p. 88.

²⁷⁹ Ibid., p. 90.

²⁸⁰ Ibid., p. 92 n.

²⁸¹ Ibid., p. 91.

comparative price and that it therefore may not be elicited through price adjustment. In addition, it has become increasingly apparent that the health of the community is endangered by any of its members being without sanitary facilities. For this reason, demands for extensions of mains into the less densely settled areas have found ready support by people who were not directly affected. Such extensions discourage private investment by increasing the ratio between capital investment and returns from sales.

Savings in the cost of fire insurance have been a further stimulus toward municipal ownership. Water supply has been a heavily weighted factor in the determination of premium charges. And the cost of providing the extra capacity needed for fire protection frequently has been more than offset by savings in the cost of insurance.²⁸² For this reason, persons who otherwise have had comparatively little interest in a unified waterworks system have favored it. But since a comparatively small fraction of the total volume of water has been consumed in fighting fires, the sales for that purpose by private firms have represented a comparatively smaller return on the corresponding capital [151] investment. As the number of fires is reduced, the sale of water for that purpose is reduced; but money savings to the community are thereby increased. It is not consonant with the interests of a private owner to make capital investments for the purpose of reducing income from sales.

After the development of modern plumbing and sewers and after the discovery of the bacterial origin of many common diseases, it was no longer a question of whether the character of the services should be left to the discretion and efforts of each individual; the only question was what control device was to be used to bring into existence and to operate the physical plants which were themselves specified by the scientific “know-how” of the community. In settling that question, in regard to waterworks and sewage disposal, the conjuncture of circumstances in most instances has ruled in favor of government ownership.

It should be noted that there has been no dearth of private capital for investment in waterworks and in sewage-disposal plants. Bonds for these plants have had a ready market. Also, there has been no indication of inability or unwillingness of communities to pay for the services. The inclusive difference here, as in the case of waterways and in the case of roadways, has been that the private-business organizational pattern has provided no way in which the ability to pay could be exploited without contravening the community’s conception of the proper physical operation of the enterprise.

[152] Schools. In 1647, the Massachusetts colony passed a law requiring all towns of fifty or more families to establish common schools because “one chief point of that old deluder, Satan, (is) to keep men from a knowledge of the Scriptures.”²⁸³ Those schools were placed under civil authority but since civil government was in fact a function of the church, the schools were parochial in character. The religious motive remained the dominant influence, though a declining one, until after the beginning of the nineteenth century.

Many civil leaders in the later colonial and early national period were aware of the social and economic significance of organized education. Benjamin Franklin established the American Academy about 1750. Men like Jefferson, Washington, Noah Webster, Rush, Coram, and du Pont gave the problem extended consideration.

Washington and Madison wished to establish a national university at the seat of the federal government, and Washington left by his will (1799) \$25,000 of stock in the

²⁸² Loc. cit.

²⁸³ Quoted by Ernest E. Bayles, “Education,” Development of Collective Enterprise, pp. 117, 120.

Potomac River Company to aid in its establishment. Presidents Washington, the two Adams's, Madison, and Monroe repeatedly called the matter of a national university to the attention of Congress, but without success.²⁸⁴

The general public was not actively concerned. The ordinary concerns of the average man could be carried on with very few [153] of the knowledges and skills taught in most of the common and Latin grammar schools. Almost all curricula were designed with a view to preparation for classical college studies, and the run of the daily life of the ordinary man offered him very little evidence that such studies could be of much value in relation to those things with which the conjuncture of circumstances forced him to be concerned.

That conjuncture of circumstances was radically changed during the period from about 1800 to 1860. And that was the period during which government ownership of schools was established. The period was one of rapid development in industry and trade and therefore in urbanization. Such developments as railroads and highways and the telegraph accelerated the westward movement and permitted almost immediate incorporation of newly settled areas into the national economy. Immigration, mostly from non-English speaking countries, more than offset westward emigration from the cities, and it infiltrated into the new areas. Within the period of one man's memory, the nation expanded across the continent and became a single, interdependent economy.

The new physical circumstances placed heavier penalties on illiteracy. Active participation in increasing areas of the economic process became more and more dependent on ability to use the conceptual tools which comprised part of academic curricula. Also, the process of parent-to-child instruction in the use of conceptual tools broke down almost completely in [154] the urban situation in which the production unit was no longer family-operated.

The changed circumstances also brought on a new pattern of citizenship. Men who had never been permitted to vote in the old circumstances found themselves members of governing bodies and therefore responsible for formulating and stating social policy in the new communities. Frontier settlements offered new social, political, and economic ambition to many who had been part-citizens in the older communities. The old states tried to hold their people by broadening the franchise, and thus manhood suffrage became fairly universal except in the slave-holding areas. Final responsibility for deciding questions of public policy was thus shifted more and more to the underlying population.

The need of organized education was there, and the people who were not receiving it were in a position to give effective expression to their need. But the first demands for universal schooling did not come from those people; they came mostly from educated persons who were, in effect, demanding that the untutored poor be taught good manners.²⁸⁵ Precautions were taken to assure that the conceptual tools, such as language and mathematics, were used toward that end. The poor were not enthusiastic; they resisted by not cooperating. And it was not [155] until the need of skill in the use of the conceptual tools which were incorporated in school curricula for other purposes - it was not until these skills became physically imperative that the general public actively demanded free, universal schooling. When that demand came in the thirties, forties, and fifties of the nineteenth century, political support by the educated portion of the population already had been assured for quite different reasons. Thus, universal schooling came to be very generally approved by all groups.

²⁸⁴ *Ibid.*, p. 121.

²⁸⁵ *Ibid.*, pp. 118-119.

The demand for universal education through schools could become effective only through political channels. Effective demand, in the market sense, was being satisfied, as always, by private sales; and various institutions other than government had been trying to meet the problem for two centuries.²⁸⁶ Government support of popular education first took the form of financial aid to other, nonprofit institutions. But where there were numerous organizations, such as various religious denominations, asking for aid, the system caused political difficulties. For example, an interdenominational controversy which developed in New York City prompted the state legislature to stop the fight in 1842 by creating the City Board of Education and by forbidding appropriations to any religious sect.²⁸⁷

[156] Development of the American free public school system has been devious and intermittent. The pauper-school idea was the conception of the earliest free schools, and it continued to be associated with public schools in some of the states until about 1870. For example, public schools could charge tuition for children of all but indigent families in Pennsylvania until 1834, and in New Jersey until 1871.²⁸⁸ The process of dissociating educational opportunity from ability to pay is still going on. Such adjustments as free text books and free immunization against certain diseases have become fairly general. Free dental care, eye examinations and corrections, and even lunches are furnished by many public schools to children of indigent families; and some schools have made these items a matter of individual choice. Also, free educational opportunity still is being extended to higher levels of study. Many public school districts operate free junior colleges, and some districts have established standard colleges and universities which are partly supported from school district tax funds.

Schools for the people at large are uniquely modern. Before the modern machine technology came into general use, there was no time in history in which the social and economic process could not be carried on without organized training of [157] the whole population in the use of conceptual tools. Schools for the military arts and for special ceremonial functions have an ancient lineage. And in those schools were developed many of the conceptual tools of language and mathematics which serve the modern organization of life. But they could be restricted to a fraction of the population because the matters with which the ordinary man was concerned could be carried on without them. Indeed, in so far as academic learning served as a basis of invidious distinction, it was more effective when restricted to as few as possible. In contrast, the development of democratic processes and modern technology require universal schooling on quite different grounds. Those grounds are the continuation of the productive process.

As the modern physical organization of the economy took shape, there were increasing compulsions on the individual and on the community to arrange for increased literacy. Those compulsions were irrespective of decorous behavior or good manners or a fear of untutored masses. They could not be avoided by the attainment of all those virtues on the part of the underlying population and therefore by the alleviation of fear on the part of the overlying population. Regardless of seemly decorum on the part of the masses and placid confidence on the part of the overlying population, compulsion toward increasing literacy would have remained a palpable fact. The heritage of private schools was in promoting decorum, and they were unfitted by that heritage to meet the problem of educating [158] an entire people for instrumental reasons.

In the case of public schools, as in the previous examples, an essential enterprise was determined by the community on grounds which had no bearings in market price. Here, again,

²⁸⁶ Loc. cit.

²⁸⁷ Ibid., p. 121.

²⁸⁸ Ibid., p. 119.

the pattern of income distribution made it impossible to create and to operate the required enterprise through the open market because effective demand in the open market did not correspond to the instrumental need as understood by the community.

Among all of the structural institutions which were available for the purpose, other than the open market, government was the only one which performed the function of organizing and operating the enterprise with tolerable physical success. There seem to have been several reasons for this. In deliberately striving for universal literacy, some direct applications of the power of mandamus and the power of injunction were involved. School techniques were manifestly unpalatable to many pupils, and some parents were inclined or compelled by circumstances of poverty to use their children for money-earning purposes, and this conflicted with scholastic schedules. In either case, alternative corrective measures were not known to the science of education and they were not within the community's pattern of recognized interdependence, and so legal compulsions were used. Also, the required financial outlays were greater than the resources of any non-business institution, other than government, in most local communities. A further circumstance was the fact that government was the only institution which [159] included all of the people. Where several institutions with divergent ends in view tried to handle the problem, partisan controversy over the character of the enterprise was the inevitable result. This was not eliminated by government ownership, but that pattern of control did leave school affairs more nearly open to the entire community and more responsible to community opinion.

Forestry. From time to time since early colonial days in America, some public concern has arisen in relation to forest resources. In 1626, Plymouth Colony passed an ordinance restricting timber exports.²⁸⁹ The immediately local supply was of great importance as the source of fuel and building material since heavy transportation was restricted to waterways. On several occasions during the colonial period and during the first century of national life, efforts were made to control exploitation of the nation's forests.²⁹⁰ But the present policy of government ownership and operation of reserve timber supply did not begin to take shape until the last decade of the nineteenth century.

At that time, the American economy was beginning to feel the effects of the disappearance of the frontier. During the first century and quarter of America's national history, [160] one of the most important factors in her economic life was the presence of seemingly unlimited and easily attained natural resources. Unexploited land had been a major factor during 150 years of colonial experience, and it remained a part of the picture more than a century after the attainment of political independence.

On the frontier, the manner of life was very different from that in the more settled areas. The family unit was almost a complete economy. The frontiersman was his own blacksmith, carpenter, tanner, planter, weaver, baker, candlestick maker, and even his own army. His development of such an array of arts was not in the pattern of his inheritance. Here was a new way of life, and it brought forth new attitudes and a new demeanor - it created the frontiersman as a type. His range of honesties was different; his attitude toward authority was different; his concepts of fair practice were different; his hospitality was different; even his language became different. There was no mistaking a frontiersman when he came to town - he was obviously a frontiersman - and yet the most obvious thing about him was that he was different from every other frontiersman and very different from the people in the old settled communities. It may be said that a common characteristic of frontiersmen was their belief in a man's right to be different.

²⁸⁹ John Ise, "Forestry," Development of Collective Enterprise, p. 211.

²⁹⁰ Ibid., pp. 211-214.

This type of man was selected by the run of circumstances to lead America's expansion to the west. His concepts set the pattern in each new-settled area. He had to change his techniques [161] as he passed from one type of unsettled region to another,²⁹¹ but there was always the "golden opportunity" offered by free resources until the land of America came under private ownership. When T. E. C. Leslie wrote, in 1888, that American conditions lend themselves well to the idea that there is beneficence in the arrangements of the economic world,²⁹² he was looking at the incomparable development of America during the period when the application of the new technology to comparatively free resources permitted the United States to absorb most of Europe's "surplus" production. This is witnessed by the fact that the United States entered the twentieth century the greatest debtor nation in the world.

But the disappearance of the frontier changed all of this. It brought about a reversal of the government's policy of giving land subsidies to railroads; it prompted attention to humus conservation; it stimulated consideration of the effects of land use on the hydrologic cycle. In short, it brought into focus the necessity of land-use planning.

The frontier heritage of free-use continued to influence national land policy. The West continued to elect congressmen who favored rapid exploitation of timber resources. In 1880, [162] almost all conservation votes in Congress came from New England and from east of the Mississippi and north of the Ohio.²⁹³ By 1891, a general revision of the public land laws was widely advocated, and an omnibus bill for that purpose was passed by Congress. In the closing days of the session, a Forest Reserve Section was attached in a rather devious manner while the bill was in joint committee.²⁹⁴ The bill passed without extended debate the day before adjournment; but when President Harrison, within a few days, exercised the power to establish timber reserves by proclaiming the Yellowstone National Park Reserve, there was vigorous objection. However, the policy stood, and President Harrison added about 13,000,000 acres to the national forest reserve.²⁹⁵ When President Cleveland set aside an additional 21,000,000 acres in 1897 on the recommendation of the National Academy of Sciences, "a storm broke loose in Congress."²⁹⁶ However, in the debate which followed, a bill was fashioned and passed giving the Secretary of the Interior the power to sell timber and to "make provision for the protection of the reserves."²⁹⁷

Thus the federal government went into the business of [163] growing timber and selling the product. Under the leadership of Gifford Pinchot the Forest Service established its reputation as a model of administrative efficiency, and after being transferred to the Department of Agriculture in 1905 developed the permanent policy of managing the public forests to provide a sustained yield by selling the mature trees and tending the immature one.²⁹⁸ In 1911, the policy was extended to buying up and reforesting denuded land in the Appalachian and White

²⁹¹ Walter Prescott Webb, "The Great Plains and the Industrial Revolution" (paper read at a conference at the University of Colorado, 1929), The Trans-Mississippi West, University of Colorado Press, Boulder, 1930, pp. 309-311.

²⁹² T. E. C. Leslie, Essays in Political Economy, Hodges, Figgis and Company, Dublin, 1898, p. 139.

²⁹³ John Ise, op. cit., p. 214.

²⁹⁴ Loc. cit.

²⁹⁵ Ibid., p. 215.

²⁹⁶ Loc. cit.

²⁹⁷ Ibid., p. 218.

²⁹⁸ Ibid., pp. 216-217, 225.

Mountains areas. By 1940 there were 227,536,705 acres within national-forest boundaries, and of that area 176,567,095 acres were being managed on the basis of sustained yield.²⁹⁹ For that year, the Forest Service was allocated \$76,404,234 including \$32,929,351 for work relief; and during the same fiscal year, sales amounted to \$5,859,183.87.³⁰⁰

The physical interconnections between forests and the remainder of the economy are not confined to the provision of timber. Forests protect watersheds from rapid soil erosion and thus prevent silting of stream beds and waterways. By reducing the rapidity of runoff in periods of heavy precipitation, they increase water flow in periods of drought. These factors are important to waterway development for transportation, power, flood control, and irrigation; but watershed protection cannot [164] be sold in the open market. The owner of a forested watershed cannot exact payment from downstream property owners for maintaining his forests and thus rendering them important services. On the other hand, he can strip the watershed of timber and thus cause those same owners to incur damages. The open market has no device by which the culture and sale of timber can be brought into rapport with other aspects of the economy which depend on it in considerable measure.

This basic disrapport comes into sharper focus when it is remembered that the long growing period of most trees forces the commercial operator to consider timber much as the mine owner thinks of coal - private owners most generally "mine" timber.³⁰¹ To cultivate a crop of Douglas fir until maturity would require entrepreneurial anticipations to extend over about eighteen or twenty generations, and the anticipated price would have to be astronomical. Manifestly, entrepreneurs cannot operate in such terms. In most cases, the profit motive is best served by stripping the marketable timber in the least expensive manner and diverting the land to alternative employments. In many instances, no marketable alternative is available, and so [165] the land is left unused.³⁰²

The national forest policy was developed under strong protest from very powerful financial interests.³⁰³ Both "producers" and "consumers" of the commodity objected to nationalization of the forests. Nor did support for the policy come from people who had any peculiar relationship to the industry as consumers of lumber or timber. Conservation of forests was favored most strongly in the northeastern states, but there is no reason for thinking that the East was more dependent on the conservation of forests than was the West. And there is no evidence that any profit-motive enterprise in the East was to be given a peculiar advantage, as compared with any other section, by planning for continued supplies of timber and for the other advantages which were claimed for the policy. In fact, the immediate pecuniary interests and consumer interests of all these groups would cause them to oppose both conservation and planned correlation.

Leadership in the movement was furnished by men who had studied the problem from the standpoint of continued material benefit to the entire economy. Some of them spent their personal wealth in furthering the movement,³⁰⁴ and there is no evidence [166] that personal gain

²⁹⁹ Ibid., p. 216.

³⁰⁰ Ibid., p. 218-219.

³⁰¹ The growth period of a Douglas fir is about 600 years, western pine 350 years, western larch 500 years, white oak 350 years, lodge pole pine 200 years, ponderosa pine 500 years, tulip poplar 250 years. John Ise, op. cit., p. 221.

³⁰² This circumstance was what prompted the law of 1911 which established the policy of buying up and reforesting denuded lands.

³⁰³ John Ise, op. cit., pp. 212-214.

³⁰⁴ Ibid., p. 216-217, 219.

could accrue to any of them through adoption of the policy they advocated. The simple fact is that their arguments were more readily understood in the areas where the results of free-enterprise operations in the timber business were more nearly apparent. People in the eastern states had witnessed the aftereffects of unplanned timber exploitation. They had seen sawmill towns come and go; they had seen floods rush out of the hills; they had seen almost bare-rock watersheds where topsoil once supported thick stands of timber; they had seen clear streams turn into muddy swamps; and they had seen mud flats where river boats once had landed. Those people were not so difficult to convince that unplanned individual exploitation of timber resources did not increase the real wealth of the nation.

The policy whereby the government owns and operates more than 200,000,000 acres of forest land cannot be explained in terms of private gain or consumer interests. And it cannot be explained by a failure of private initiative to supply the market demand for forest products.³⁰⁵ It seems to have come about through conviction that the industry must be planned directly in reference to the physical needs of the economy on a national scale. That conviction was the result of evidence [167] that the forces of the market impelled private owners of timber land to act in a manner which precluded optimum physical correlation between the provision of timber and the remainder of the economy. Such things as continuation of the supply of timber and other forest products, the conservation of water and soil, flood control, irrigation, the protection of waterways and power sites, the preservation of wild game, and the provision of recreational facilities were recognizably connected with the management of timber lands. But all of those recognized needs not only were not implemented by private management of timber land, they were obstructed by such management.

The federal government was the only control device which could give promise of achieving the necessary correlations. Since the government already had vast areas of timber land in its possession, the minimum dislocation obviously was merely not to dispose of some of those holdings.

Housing. If residential housing in the United States was considered a problem before 1834, no comment to that effect was recorded.³⁰⁶ Significantly, the first recorded comment was made by a public health officer in New York City.³⁰⁷ Already, it was beginning to appear, from the standpoint of health, that [168] the general pattern of the evolution of cities could not be left to the guidance of a free market. Twenty years later, the Association for Improving the Condition of the Poor began a model housing project on a limited-dividend basis combining "philanthropy and six percent."³⁰⁸ In 1867, the first tenement-house law was enacted at the request of the Citizens' Association of New York City.

For almost a century, the limited-dividend idea and legislation against bad housing were the only devices countenanced in efforts to solve the housing problem. Whatever housing reforms were accomplished had to include arrangements for rents which would at least equal full cost. Measures within that limitation accomplished some results, but the slums continued to grow.

³⁰⁵ Of course effective market demand, by definition, always is supplied in the open market. But, up to the time the policy was adopted, there seems to have been no monopolistic decision to withhold production in order to raise price.

³⁰⁶ Seba Eldridge, "Housing," Development of Collective Enterprise, p. 261.

³⁰⁷ Loc. cit.

³⁰⁸ Ibid., p. 262.

The New York State Housing Act of 1926 provided for city and state tax exemption of limited-dividend housing companies. Several companies, including three cooperatives, took advantage of the subsidy and built almost 6,000 dwelling units for which rents were set below the market rate.³⁰⁹ But the slums continued to grow.

Another attack on the problem was to arrange for government aid to business interests in the real-estate field in order to reduce capital costs.

[169] In 1932, the Reconstruction Finance Corporation was authorized to make loans to limited-dividend companies for the construction of housing projects.³¹⁰ Only one such loan was made. The Federal Home Loan Bank Board was created the same year.³¹¹ Its immediate purpose was to protect local building and loan associations and other lending institutions from bankruptcy. The Board was empowered to make loans to local firms which could offer real-estate mortgages as security. But public confidence in local saving-and-loan associations was not restored until two years later when the Board was given authority to insure individual deposits up to \$5,000. This was accomplished through the creation of a subsidiary, the Federal Savings and Loan Insurance Corporation. But the most important government aid to the private financing of residential construction has been the insurance of mortgage loans through the Federal Housing Administration.³¹² From 1934, when it was created, to 1940, the FHA insured private loans totaling \$4,076,264,676.³¹³ By 1940, FHA was insuring and thus assuming almost all risk in the financing of 42 percent of all new single-family homes.³¹⁴

[170] The services offered by these agencies have enabled them to influence interest rates, terms of payment, design of building, and neighborhood planning. They generally are credited with bringing housing within reach of the lower middle-income brackets and with raising the standards of residential construction. Also, it has been expected that by raising the standards of construction and increasing the convenience of purchase and by reducing capital costs the supply of standard dwellings would be increased and thus cause a movement away from the slums. But the slums have continued to grow.

For more than a century, there has been a constantly increasing realization that the existence of slums imposes inescapable penalties on the entire economy. That realization has been augmented as the relevant data have been collected and brought into view. But it never has reached the point in public comprehension which would stimulate direct corrective action. The first specific provision for the physical destruction of slums had to await the convergence of the problem itself with another problematic situation which did arouse direct action. The other problematic situation was severe, continued, and widespread depression.

In the depression of the 1930s, the American people demanded corrective action. During the first three years of that period, corrective measures were restricted largely to making available capital funds and to raising the propensity to consume. The former was the intention of such agencies as [171] RFC, FHLBB, and FLB; the latter was attempted through personal appeals by lenders and through advertising campaigns. Both kinds of efforts were continued after a change of administrations in 1933; but, in addition, a policy of direct relief and public works was inaugurated. The National Industrial Recovery Act of 1933 included a minor clause

³⁰⁹ Loc. cit.

³¹⁰ ibid., p. 264.

³¹¹ Loc. cit.

³¹² ibid., p. 265.

³¹³ Loc. cit.

³¹⁴ Loc. cit.

which permitted the construction of low-rent and slum-clearance projects out of the appropriation for public works.³¹⁵ The pressure of the general emergency and the fractional character of the housing provision were circumstances which favored a minimum of objection to the prospect of public housing as it was prescribed in the bill. Congress displayed very little interest in the housing clause, and it was enacted as part of the general bill for industrial recovery.

The Housing Division of the Public Works Administration set about solving the legal and technical problems involved in the inauguration of public housing as a slum-clearance and an employment-generating enterprise. Court decisions holding that PWA could not condemn land for public housing forced the agency to ask for state legislation creating local public-housing authorities which could condemn land for such purposes.³¹⁶ The Housing Division continued its activities until 1937 when it was replaced by the United States Housing Authority. At that [172] time, \$134,000,000 had been spent on 51 projects in 36 cities and on two projects in insular possessions.³¹⁷

The USHA was authorized under the 1937 act to give financial and technical assistance to local housing authorities.³¹⁸ The authority could make loans up to 90 percent of total project cost, but all such loans must be repaid with interest. One condition of such loans was that the local authorities must arrange for slum clearance which would equal the housing capacity of the projects. Another condition was that the local "subsidy," either through tax exemption or cash payment to the local authority, must be at least twenty percent of the USHA annual grants in aid which may be as high as 3.5 percent of total construction cost but which usually approximately cover interest on capital investment. Since aggregate rents for each project must cover operating costs including replacements, maintenance, and repair, the federal subsidy is in effect a government guarantee that interest on all bonds will be paid. And, to the extent that the federal government holds the bonds, the federal subsidy is, in effect, the government paying itself interest. The local and federal "subsidies" have reduced the necessary rents to operating costs plus perpetual maintenance. On this basis, the average monthly rent in 1941 was \$12.79 per [173] family dwelling unit.³¹⁹ By establishing rental schedules on the basis of family income, most local authorities have been able to accept some very low-income tenants. At the end of 1940, seventeen percent of all tenant families in USHA projects had incomes under \$600 per year, and 44 percent had yearly incomes under \$900. Only seven percent were receiving as much as \$100 per month.³²⁰

In February of 1942, the USHA, together with other government agencies engaged in the construction of housing, was incorporated into the Federal Public Housing Authority which now administers almost all government-owned housing. In the low-rent, slum-clearance program, the FPHA is continuing the USHA pattern essentially unchanged.

The policy of the FPHA is to avoid all competition with private investment in the construction of housing. No family is accepted as a tenant if its income permits buying or renting adequate housing in the open market, and continued occupancy is dependent on the same condition. Thus publicly owned housing in the United States is intended to provide

³¹⁵ Ibid., p. 266.

³¹⁶ Loc. cit.

³¹⁷ Ibid., p. 267.

³¹⁸ Loc. cit.

³¹⁹ Ibid., p. 268.

³²⁰ Loc. cit.

adequate housing for people who are unable to secure it in the open market. Up to 1941, public-housing provided for about 190,000 families.³²¹ But estimates of the number of [174] families for whom the open market could not provide adequate housing vary from six to seven million.³²² Obviously, if slums are to be destroyed, or even arrested, through public housing, the effort will have to be greatly expanded.

Public housing, like public forestry, was initiated as a minor phase of a more inclusive program. Gradually, the general public had become convinced that the open market did not arrange the housing situation in the best interest of the community. For a century, studies of the problem had accumulated evidence that there were inescapable connections between inadequate residential facilities and the general welfare of the entire community, including the well-housed. Certain connections, in the sense of consequence, became fairly evident through such things as disease, crime, and fire hazards; but the causal antecedents of the situation obviously were very complex, so complex that students of the problem, even yet, hardly have begun to attain a systematic analysis. Complexity forced the analysis to the level of general community planning. And when planning for the general level of employment was engendered by economic depression, housing had become acceptable as a phase of that planning.

Here, again, the community at large was convinced by the run of the facts that the open market in housing interfered with the economic and social process.

[175] Housing differs from the preceding examples in that the government-owned item is for the exclusive use of an individual person or family. Community ownership of items which are used by the entire community is not a rarity in capitalistic economies, but housing is perhaps the only instance in which a privately consumed item is government-owned during its consumption. This dispels the hypothesis that an enterprise must be one of public use in order to qualify for ownership by a democratically organized government.

The failure of the private provision of housing for low-income families has not been a failure in the sense that the enterprise could not be operated at a profit. On the contrary, the very poorest housing often has given the highest rate of net returns on capital investment. The failure has been, rather, that the character of the product under private ownership has not permitted the enterprise to perform its function efficiently in the instrumental sense. The judgment of failure has rested on non-price evidences entirely.

Government ownership of low-rent dwellings seemed to be unavoidable if the problem was to be solved at all. To acquire the necessary land and to destroy slum dwellings required direct exercise of the power of mandamus and injunction. Also, the financial requirements exceeded the resources of any non-government institution other than business enterprise.³²³

[176] It should be pointed out that the initiation of public housing, like that of the previous examples, was accomplished with minimal institutional adjustments. The effort of federal agencies to exercise the right of eminent domain for low-rent housing was thwarted in the courts with the result that local jurisdictions were created by state legislation with authority to own the housing projects. Federal financing was arranged in the form of loans to the local authorities. Thus federal-government financing was combined with local-government ownership without disturbing the current pattern of legal authority. Bookkeeping transactions were devised whereby federal "subsidies" to meet the interest on local-authority bonds held by the federal

³²¹ *Ibid.*, p. 267.

³²² *Ibid.*, p. 277.

³²³ Estimates of the investment required to replace all American sub-standard dwellings range from twenty to forty billion dollars, depending on the definition of "standard," the land policy, and the bookkeeping system used in the estimates. *Ibid.*, p. 274.

government were paid to the local authority and then repaid to the federal government. The propriety of bonds bearing interest thus was not infringed.

Pattern

No one of the principles or combination of the principles of government ownership which have been proposed in economic literature is common to all of the examples cited in this study. For example, there is no reason to think that forestry and [177] housing were tending toward monopoly when they were established as government-owned enterprises. For another example, inability of private owners to make a profit because of the relation between cost and demand schedules under private ownership certainly does not apply to waterworks, forestry and housing; and it is not altogether certain that it applies to schools or even to highways. Also, there is no evidence in any example that private enterprise has lacked the required capital funds. Such factors as universal use, conservation of natural resources, extreme postponement of returns, and military strategy have played parts in particular cases, but none of them has been common to the whole sample.

Quite clearly, the economic enterprises which have become government-owned in the United States cannot be characterized in terms of a particular type of physical process or equipment or organizational structure; and they cannot be explained in terms of rates of profit or loss to private owners or by ratios between operating and capital costs or by a dearth of private capital funds.

If the phenomenon, as a category, is to be explained at all, it must be regarded in terms of its interconnections with the whole of the economic process. The least inclusive and most specific level of generalization which makes the run of the facts in each instance must comprehend the determination of purposeful choices which are made by the community. At that level of generalization, pattern becomes apparent.

[178] First, a problematic situation arises in relation to an economic enterprise. What constitutes the problematic situation in each instance is divergence between the possible contributions of the enterprise to the general economic process and the actual performance in that regard under non-government ownership; what occasions the problematic character of the situation is a change in the physical circumstances relating to the enterprise on the one hand and the concurrent maintenance of existing control arrangements on the other. In other words, a problematic situation is occasioned by a failure to adjust the control mechanism in correlation with other aspects of the enterprise. This is tantamount to saying that if the control problems relating to an economic enterprise are to be resolved at all, the answers must be in terms of instrumental efficiency. Second, government ownership of the enterprise in question becomes recognized as a possible alternative control device.

The compulsions of the problematic situation stimulate general public concern about proper control arrangements for the enterprise. As the compulsions bear more heavily and as public concern and consideration increase accordingly, alternative control arrangements are proposed. In some instances, for example schools and low-rent housing, several alternative control devices are tried. But as long as disrapport between physical possibility and actual performance continue to stimulate public consideration, further alternatives are brought into view. Government always has been among the available [179] alternatives; and when the public

comprehension of the problem settles on government as the most desirable control device, arrangements to that effect are brought about through political action.³²⁴

There is a third factor which is common to all the examples cited in the present study and which is borne out by general observation. In establishing government ownership of an enterprise, institutional adjustments are held to the minimum. In no instance do the adjustments exceed those which are necessary in order to resolve the problematic situation.

³²⁴ It is presumed here that the people are the ultimate sovereign in the body politic. It would seem that the pattern of adjustment presented here holds to the degree in which political institutions permit the popular determination of social policy. Presumably no society ever existed in which some degree of popular sovereignty did not exist.

CONCLUSIONS

The conclusions to be drawn from the present study are simple, and they are fairly obvious in view of what has been presented in the preceding chapters. Some of them are implicit in the context of their presentation, and some of them have been explicitly stated. At this point, it is convenient to present them in the order of their emergence in the study proper.

The Classical Theory as the Basis of Analysis

It has been shown that the classical general theory offers no basis for a consideration of government ownership in a capitalistic economy. And so it is that, although the major spokesmen for the classical general theory always have favored the government ownership of some economic enterprise, they have been forced to go outside their general theory in order to explain their position on that matter. This is not accidental. A central content of the classical general theory, from its first inclusive statement in The Wealth of Nations to its last reformulation in Marshall's Principles, is that the only way in which the real and basic economic factors can be judged is [181] through the adjustment of price in a free and open market. Then the circumstance that the spokesmen for the general theory have been forced to found their explanation of government ownership outside of the price structure means more than just an excursion in search of extended evidence. In fact, it is a disavowal of the central content of that general theory by its foremost spokesmen. For it is quite clear that to plan the creation and operation of an economic enterprise under government ownership requires the assumption that there are other ways than free-market price in which the basic economic factors can be judged.

A corollary of the dictum that free-market price is the only way in which the basic economic factors can be judged is the dictum that the free market is the only structural institution which permits the logical administration of an economic enterprise. This is necessarily the case since administration is nothing more than the making of judgments which determine organization and operation. Thus the assumption of a particular structural institution is germane to the classical general theory. Here again the classical theorists have had tacitly to disavow their general theory in order to find any warrant whatever for the government ownership of any economic enterprise.

Each example of government ownership cited in the present study is an instance in which the community, including almost all economists, decided that the price theory of valuation [182] did not hold and that there were alternative structural institutions which could be used to give effect to the decision. The decision in each instance was made in reference to the instrumental functions of the enterprise and to the comparative efficiency of structural institutions as alternative control devices.

The classical general theory not only furnishes no basis for solving the problem of government ownership, but also denies the possibility of logical consideration of the problem.

The Underconsumption Theory as the Basis of Analysis

The underconsumption theory is an analysis of the internal workings of the market process. Its claim to generality was deleted by the Keynesian development in which the basic economic forces are found not to correspond with the pecuniary accountancy. In the Keynesian analysis, as well as in the underconsumption theory proper, the open-market process is found to be defective in that it cannot provide sufficient effective demand to maintain full employment of the factors of production. The theory further indicates that effective market demand, except under "novel circumstances," is a constantly decreasing factor. Then it follows that since the free-market process cannot, alone, maintain the requisites of its own continuance, [183] deliberate measures must be taken to correct the deficiency if the economic process is to continue.

Government is the only modern structural institution with the financial resources required to correct that deficiency. Government is also the only modern structural institution the control of which is, to any considerable, degree, in the hands of the people upon whom the incidence of unemployment falls most heavily. It is therefore to be expected that at least some measures to relieve unemployment would be taken through government,

Most government measures for this purpose have taken the form of direct relief to unemployed persons and increased expenditure on public works. Generally, the public works have been those which were already recognized as government functions; but when the requirements for increased expenditure have pressed heavily on the outlets already established, new government-owned enterprises have been instituted. Public housing and some aspects of waterway development were begun under such circumstances.

The Underconsumption analysis does not explain how or why economic enterprises become government-owned. But it does explain the circumstances under which resistance to the government ownership of an economic enterprise is minimal.

The Institutionalist Theory as the Basis of Analysis

Alternative to the classical theory, the only non-revolutionary economic analysis which still can claim generality is the institutionalist theory. It is the only such theory which purports to set forth the inclusive and continuing factors in the economic process.

It has been pointed out that the institutionalist theory contains two principles which may be applied to the problem of government ownership in a capitalistic economy. The principle of technological determination is simply that economic problems can be solved only by adjusting the institutional structures involved in the problems so as to bring them into instrumentally efficient correlation with the technological aspects of the problems. The principle of recognized interdependence is that the pattern of interdependence which is recognized by the persons whose actions are correlated in a structural institution specifies the character of any adjustments in the institutions.

The run of the facts in the determination of government ownership in the examples cited in the preceding chapter conforms with these two principle. In fact, the pattern of adjustment which is seen to be common to all of the examples is almost identical, even in statement, with these principles. The evidence here is unexceptionally in support of the institutionalist general theory.

A third element has been observed in each instance of [185] a shift of government ownership. In all cases the institutional adjustments have been minimal in both degree and number. Adjustments which are necessary to the solution of the instrumental problem in view are the only ones which have been made. Adjustments which might increase the efficiency of the operation under government but which do not necessarily enter the case as a problematic

factor have been avoided. If the evidence of further inquiries supports the same observation, a third general principle may be indicated.

Pattern and Process

The present study originated as an effort to find the determinants of government ownership in a capitalist economy and to use the pattern of those determinants as a referential check for general economic theories.

The determinants of government ownership display pattern only in the sense of process or sequence. They display no pattern in the sense of a particular arrangement of incidental circumstances or characteristics which are common to all government-owned enterprises. Such circumstances vary from enterprise to enterprise and are observable in none-government-owned enterprises. The pattern of adjustment can be explained only in terms of the process of adjustment.

The process of adjustment in the examples considered in the present study conform to the institutionalist theory which is itself a general theory of the economy as a process.

BIBLIOGRAPHY

- Ayres, Clarence E. The Theory of Economic Progress, The University of North Carolina Press, Chapel Hill, 1944.
- Chamberlin, Edward, The Theory of Monopolistic Competition, Harvard University Press, Cambridge, 1938.
- The Constitution of the United States of America.
- Eckard, E. W., Economics of W. S. Jevons, American Council on Public Affairs, Washington, 1940.
- Eldridge, Seba, et. al. Development of Collective Enterprise, University of Kansas Press, Lawrence, 1943.
- Encyclopedia of the Social Sciences, Vol. VII, The Macmillan Company, New York, 1937.
- Haney, Lewis H. History of Economic Thought, The Macmillan Company, New York, 1936.
- Homan, Paul T. Contemporary Economic Thought, Harper and Brothers, New York, 1928.
- Jevons, W. Stanley. The Principles of Science, Macmillan and Company, London, 1887.
- _____ The State in Relation to Labour, Macmillan and Company, Ltd., London, 1910.
- _____ The Theory of Political Economy, Macmillan and Company, Ltd., London, 1936.
- Keynes, John Maynard. The General Theory of Employment Interest and Money, Harcourt, Brace and Company, New York, 1936.
- Leslie, T. E. C. Essays in Political Economy, Hodges, Figgs and Company, Dublin, 1888.
- Lilienthal, David e. Democracy on the March, Harper and Brothers, New York, 1944.
- Malthus, Thomas Robert. An Inquiry into the Nature and Progress of Rent, and the Principle by Which It is Regulated (edited by Jacob H. Hollander). The Johns Hopkins Press, Baltimore, 1903.
- [187]Malthus, Thomas Robert. First Essays on Population, Macmillan and Company, Ltd., London, 1926.
- _____ Principles of Political Economy with a View to Their Practical Application (2nd edition, W. Pickering, London, 1836), The International Economic Circle, Tokyo, 1936.
- Marshall, Alfred. Industry and Trade, Macmillan and Company, Ltd., London, 1919.
- _____ Memorials of Alfred Marshall (edited by A. C. Pigou), Macmillan and Company, Ltd., London, 1925.

- _____ Money, Credit, and Commerce, Macmillan and Company, London, 1923.
- _____ Official Papers (published for the Royal Economic Society), Macmillan and Company, London, 1926.
- _____ Principles of Economics, Macmillan and Company, Ltd., London, 1939.
- Mill, John Stuart. Essays on Some Unsettled Questions of Political Economy, Longmans, Green, Reader, and Dyer, London, 1874.
- _____ Principles of Political Economy with Some of Their Applications to Social Philosophy (edited by Sir W. J. Ashley), Longmans, Green and Co., Ltd., London, 1926.
- Montgomery, R. H., "Government Ownership and Operation of the Electric Industry," Annals of the American Academy of Political and Social Science, January, 1939.
- _____ "Government Ownership and Operation of Railroads," Annals of the American Academy of Political and Social Science, January, 1939.
- Pigou, A. C. Economic Essays and Addresses, P. S. King and Sons, Ltd., London, 1931.
- _____ The Economic of Welfare, Macmillan and Company, Ltd., London, 1920.
- _____ Wealth and Welfare, Macmillan and Company, Ltd., London, 1912.
- Ricardo, David. Notes on Malthus' Principles of Political Economy, The Johns Hopkins Press, Baltimore, 1928.
- [188] Ricardo, David. The Principles of Political Economy and Taxation, (Everyman's Library Edition) E. P. Dutton and Company, Inc., New York, 1911.
- Robbins, Lionel Charles. The Nature and Significance of Economic Science, Macmillan and Company, Ltd., London, 1936.
- Roll, Erich. A History of Economic Thought, Prentice-Hall, Inc., New York, 1939.
- Scott, William A. The Development of Economics, D. Appleton-Century Company, Inc., New York, 1933.
- Senior, William Nassau. An Outline of the Science of Political Economy, Farrar and Rinehart, Inc., 1939.
- _____ Industrial Efficiency and Social Economy (original mss. arranged and edited by S. Leon Levy), Henry Holt and Company, New York, 1928.
- Smith, Adam. An Inquiry in to the Nature and Causes of the Wealth of Nations (edited by Edwin Cannan), The Modern Library, New York, 1937.
- Veblen, Thorstein. Absentee Ownership and Business Enterprise in Recent Times, The Viking Press, New York, 1938.
- _____ Essays in Our Changing Order (edited by Leon Ardzrooni), The Viking Press, New York, 1934.
- _____ Imperial Germany and the Industrial Revolution, The Viking Press, New York, 1939.
- _____ The Place of Science in Modern Civilization, B. W. Huebsch, New York, 1919.
- _____ The Theory of Business Enterprise, C. Scribner's Sons, New York, 1927.
- _____ What Veblen Taught (edited by Wesley C. Mitchell), The Viking Press, New York, 1936.
- Webb, Walter Prescott. "The Great Plains and the Industrial Revolution," The Trans-Mississippi West, University of Colorado Press, Boulder, 1930.
- West, Edward. Essay on the Application of Capital to Land: with Observations Showing the Impolicy of Any Great Restriction of the Importation of Corn, and That the Bounty of 1688 Did Not Lower the Price of It (edited by J. H. Hollander), The Johns Hopkins Press, Baltimore, 1903.

3. "VALUE AND ITS DETERMINANTS" lecture notes.

lecture 2

Last time I was trying to eliminate some of the difficulties which I have felt inhibit the study of social sciences. In that connection, I mentioned several items and, at the end of the hour, we were concerned with this sequence of events in the development of value theory, in the development of a particular criterion [*utility*] being raised to the level of comprehension that we have been speaking of as articulation, and then its bifurcation [*into pleasure and pain*] and the development out of that bifurcation of nihilism, and then the reorientation of value theory. I gave you a few examples--the Greek Stoics and Epicureans.

To illustrate what I was saying about this bifurcation and reorientation [*within the utility theory of value*], I would like for us to take a glance at how people have thought about the problem of value within historical times. We aren't very clear on anything prior to that time. As you know, the ancients--particularly the Greeks after they learned to read and write ... (It didn't take them but a thousand years after they got acquainted with people who could read and write. Pretty smart folks, the Greeks; not as smart, of course, as college students at this time. It doesn't take them quite that long--usually.) ... were directly concerned with, and understood, the problem.

Particularly, I should say, their great triad--Socrates, Plato, and Aristotle--began to try to make sense out of community policy and social analysis generally. And they began also to associate with the economic process. At that time, the stage of analysis was such that you can find two very divergent kinds of formulations resulting from these two bifurcated approaches to the value problem. One we have captioned, in a general way, Stoicism, the other, Epicureanism.

I suggested last time that what they were looking at was the same thing, but they were approaching it from two different avenues. In the case of the Epicureans, the utility positively, and the Stoics, disutility. Or if you will, in recent years, the parallel between real cost analysis and the utility theory. I think also, in the present state of affairs, we can discern efforts at reconciliation of these two in the current literature. It has taken several forms. One, an effort to disregard the problem altogether but, since it cannot be disregarded in fact, an unadmitted use of a common basis of estimation, and that the present state of affairs is confused in a fashion that it never has been confused before because of the rise in recent years of instrumental theory. Heretofore, there has never been any real excuse back of this bifurcation. Always, I think, they were talking about utility. In the present conjuncture of circumstances, they aren't talking about it very much, but they are using two different kinds of theory or of value back of this bifurcated stage [*i.e., the utility and the instrumental theories*].

Now the Greeks thought and talked with each other and the rest of the world as if they were talking about two different kinds of things, the Stoics talking as if what they were using as a criterion of judgment--utility--was altogether different in their analysis--disutility. I'm talking about their analysis since, as I tried to make plain to you to start with, people have always used [*the instrumental*] theory of value because there isn't any escape from it, and we will have more to say about that later. But they thought they were talking about two different kinds of things. I think they weren't.

We now are, in fact, talking about two different kinds of things. The one--utility theory--is as old and certain as human history, and comes with a whole complement of theoretical apparatus which permits its application in analysis to any particular problem. It comes equipped by virtue of the five or six thousand years of the recording of human thought. I think all utility theory uses that apparatus. The other--*[instrumental theory]*--which we will try to identify in this

course, comes unequipped. It has no application-level formulation. There is no theory of valuation ready to use. There is no concept, for example, comparable to the cost concept we find in the classical economic analysis.

Just now, we are beginning to realize for the first time in history that we need an economic accounting of value theory. That is to say, we have come to realize that the conceptual tools with which we have accounted our affairs are not economic in character. They are something else--business tools. And they were business tools at the time of *[the Greeks]* no less than they are today. These tools are highly refined, and there are a great many of them. We have become experts in using them. And we have come to realize that they aren't what we require.

This realization is, I submit, the necessary outgrowth of the realization that it isn't utility with which we are concerned. These tools do about as well with the utility theory of value, I suppose, as could be done. The complexity and minuteness and fineness with which they have been manipulated and arranged and rearranged ... is something to be astounded at. And then we have come to realize that what they are good for isn't what we require. And, I repeat, that realization is a result of the already accomplished efforts at reidentification of what is the theory of value, at what is one step back of these bifurcations and recombinations and rebeginnings.

And so the bifurcation, which is really a dichotomy, in current thinking is a different thing than has occurred before. Heretofore, it has been one step this side of value theory [*i.e. analysis has been concerned with the theory of valuation rather than the theory of value*]. Like the Epicureans and the Stoics; like the cost theorists and the utility theorists. All of them are talking about the same thing: *[the utility theory of value]*. In the literature, for example, you find--especially in economics, but also in anthropology-- you find the classical theory proper, as well as the neoclassical theory, distinguished in terms of the theory of value they use. The distinction is not in the theory of value at all, but in the theory of valuation, in the theory of how you go about measuring value, whatever it is. The labor theory of value--so-called--of Adam Smith, David Ricardo, and Karl Marx--the classical theory proper, is a theory of how you measure the real worth of something.

Now the utility theory of value is a theory of value in so far as it is a theory. But we do not consider that at all. What we consider is the theory of valuation, which comes to us in the form of price theory, or supply-price theory, or cost theory in the form of price theory, all of which presumably parallel the actual fundamental operations in human behavior with the experiencing of utility and disutility and the anticipation of it. And so what we are now concerned with is not the theory of valuation, but the theory of value itself. The two general developments now are not theories of valuation, but theories of value, one--I repeat--coming well equipped with the theory of valuation in two forms of price theory and labor theory; the other unequipped.

Note the great difficulty those of you who have formed opinions and what-have-you on the instrumental basis, have in applying that theory to a particular problem. That is the third part of this course: What theory of valuation do you use to measure instrumental efficiency? How do you go about it? What is, in some sense, more than something else? Immediately you will recognize that we are not yet equipped with the necessary tools.

Now, first, I want to get this bifurcation thing in order, and also the utility theory, how utility theory easily lends itself to that kind of taxonomy [*of bifurcation*]. Let us use the ancient [*distinction between utility and disutility*]. They insisted that there is a missing middle here, that they are different things. Are they? I have said that the Greeks seemed to be talking about the same thing. They are approaching the same item from two different avenues, two different facets.

Well, are they, or aren't they? Are they in fact two different things? Were the Stoics talking about different matters, using a different criterion of judgment than the Epicureans? Note

that they behaved differently. In fact, the word Epicurean has come to mean someone who wines, womens, and songs, with no thought for tomorrow. A Stoic has been defined as someone who has reconciled himself to the discomforts of human life, reconciled to his fate. I submit that a Stoic is an Epicurean who has been beaten on the head considerably.

Test it in your own behavior. If you were ever in the army you will know exactly what I am talking about. You can be quite human and even happy, and then you hit a series of systematic and organized insults--well, isn't that what a peacetime army is?-- and what is your reaction? You freeze up. You take it, we say; you sweat it out. You become a Stoic. You become an Epicurean who is being hurt. It's a survival characteristic, you see. You have to be that way. And if you will look carefully at the Greek literature, you will find that the Epicureans came from very well-to-do people. They talked and acted that way. They had numerous statues in their gardens, and worshipped Bacchus very frequently. He was the god who gave you an excuse for getting drunk without violating the law. But if you were a poor man, you couldn't very well worship Bacchus. Bacchus was an expensive guy; he was the big shots' god. It's the difference, of course, between intoxication and drunkenness. The poor man gets drunk and the rich man gets intoxicated. But you're in the same condition. Now Epicurus himself would lament greatly that anyone would use him as an excuse for getting drunk, because he was quite a guy.

But that was a minor incident; the actual facts are otherwise. Yes, I think the Epicureans and Stoics are talking about the same thing. They are talking about pleasure and pain, or want satisfaction. Where they differ is on the characteristic experience being one way or another. Both have resigned themselves at different spots on the utility axis: one is on the positive side where it feels good; the other on the negative side where it hurts.

And note the great accomplishment of the neoclassicists, because in the latter part of the 19th century they got both on the same axis, with negative [*utility or opportunity cost*] a different place on the same axis. They made disutility and utility the same thing, just different locations. A little bit of disutility is just a little less of something than a very little bit of utility. All along in this situation where there is in fact no missing middle. There are two different ways of talking about, looking at, and approaching the central problem so nearly the same that they could live in the same community quite well.

It would be completely impossible if you could in fact apply two different theories of value. It becomes tolerable by virtue of the fact that you can't apply them, and the level of intolerableness that you experience is by virtue of the fact that in the one instance all you can do is try to apply it, and in the other you in fact apply it in terms of working, actual behavior.

The Greeks and other ancients pretty well understood not only this general problem of valuation and of value, but also the problem of institutions and how the concept of value is involved in institutional problems. As you know, Aristotle made an effort to analyze the economy in what he called home economics--household economy. That's how economics got started. And he pointed out, for example, the famous quotation which every sophomore encounters: the uses of any article or tool. For example a shoe, may be worn or it may be exchanged for something else. And he goes on to say, as you recall, that the first is "proper" to the object and the second in some sense is "improper." In his time, it was "improper" in the sense that gentlemen didn't exchange shoes. In fact, gentlemen didn't do much of anything. They never have. They don't yet. In fact, isn't that how you prove that you are a gentleman? You just don't do anything. You demonstrate a very high degree of abstinence from the productive process. You don't get your hands dirty. That sort of proves you're a gentleman. And you demonstrate that adequately by your dress, your behavior, etc. You spend all of your time being [*idle*], an invidious display of the capacity to waste.

Well, modern man is distinguished, I submit--and I'm thinking of Aristotle this way--not only by his technological achievements but by his institutional achievements as well. He is peculiar in the technological sense, but his distinction is not attributed to that. As early as the Greeks, that began to be apparent. They began to distinguish between "proper" and "improper" on some other grounds than what they were saying. What they were saying had a terrific effect upon what they were doing, as it always does. What they were thinking clearly had a great effect on what they were doing. In fact, it determines what you do, where you have to make choices. It determines what you do in all problematic situations. And as early as the Greeks, the beginnings of what we call "modern man," both his institutional accomplishments and his technological accomplishments, were beginning to be apparent.

In that sense, you see, all that we are concerned with is the modern period, as it were. Man became what he is only a short while ago. The illustration I like to use in that respect to get that in mind is that, if you put the whole of known human experience on one sweep of the [*minute*] hand of the clock, man learned to write less than two minutes ago. That's the whole of written history right there. Man was here a long time before that. In the history books, we speak of "modern history" as beginning with Columbus, the discovery of America. Particularly in the U.S. we do that.

Man learned to write just yesterday, as it were. And already he had learned a great many things technologically and institutionally, and he is distinguishable from what came before by his accomplishments in these areas which, of course, is what we call civilization. Man began to be civilized in a scandalously rapid manner because he began to be able to accumulate his theory. As soon as he learned to write, you see, he could put it down. That is an important matter. And only a few minutes ago, as it were, in the middle of the 14th century, he began to learn to print so he could say it over and over again. And then everybody could learn what everybody else said, and then, of course, he was on his way. He is on his way so fast that he can't even see the events go by.

The peculiar characteristic that I speak of as modern man is that he deliberately applies theory to the solution of his problems, not only technologically but institutionally. That is to say, he lives sufficiently differently than the other species that you can very readily tell the difference. We call each other dogs and sons of dogs, but we know the difference. There isn't any difficulty. However, there are tribes yet who are primitive enough that it's not quite--they have to prove they are better than monkeys. They don't like to be called anything like that; they constantly prove that they are better than monkeys. We are not emburdened that way. I think we can now proceed with sufficient confidence that there is considerable distinction. We can even joke about it and not get angry about it. But they couldn't.

And that characteristic is at bottom the recognition of the place of value theory in the everyday life of everybody. Not only in the social area of our experience but also in technology. In physics no less than economics or no less than aesthetics. And another thing: I shan't present a thesis at the moment in this regard, but another thing began quite discernibly at that point: science. Science in the sense that man uses it on the street corner. And, of course, he uses it correctly. Science and philosophy we say began with the Greeks with the development of some things that permitted us to get highly organized and continuously developing bodies of thought. That is to say, theory. Science I guess we could characterize as building generalizations and constantly verifying or negating those generalizations through singular and individual application, applications being made in the form of hypotheses.

Philosophy is a deliberate effort to think coherently over the entire area of man's experience. We say science and philosophy began here, and it just happens that it couldn't be any other way, I think, because at that point man began to apply theory deliberately in an organized and conscious way. That happens to be true in both what I have termed philosophy

and science, and it just happens that they are the same things. They had to begin together, because they are the same things, I think. We think of philosophy as a deliberate effort to think coherently over the entire area of our experience, to set forth the inclusive and continuing factors of the whole of human experience.

The universe of philosophy is the whole of human experience among men. The whole of his social experience. Science, what the man in the street calls science, is the same thing restricted to particular universes--in the statistical terminology a universe being a separately identified area of inquiry. The science of physics, or the science of biology, or the science of economics, etc. Now no science, you see, takes the position that it is not related causally to all other areas, all other sciences. Certainly the chemists and the biologists can't say that chemistry and biology are unrelated. They are convenient areas for deliberate and concentrated inquiry. And when they get so close together that they can't distinguish it by name, they call it bio-chemistry.

The reasons for not only the congruity I have indicated but also the simultaneity that has in fact occurred, will be embodied in the identification, I hope, of philosophy and science, as I hope to make it in this course. What I'm saying, of course, is that it was not accidental that they are simultaneous. They are, I think, the same thing. Now, holding that as hypothetical for the moment--for the next six weeks--I think we can prove it. Man at that point began to think carefully and extensively enough about his institutional affairs as well as his technological affairs that he could in an organized and deliberate way set down the theory of value. And it seems to me that he got off on the wrong track.

But right or wrong, the track he got off on is the utility theory. And that still is the most common sense of the community. It is still held that, in order to be human value, it had to be utility. Now, we call it many different things, but kick it around a little bit and scratch the paint off and you'll find John Stuart Mill's utility. Sometimes they speak of "need." And what does a person "need?" Well, if you boil it all out, you will find Mr. Utility standing there. The satisfaction of wants. Both heterodox and orthodox theory. The utility theory of value. And it is that theory of value which is supposed to give meaning to *[life's experiences]*. This can very easily be set up in terms of utility.

Now, this becomes questionable if you set it up in terms of utility. But the sciences dealing with human affairs, particularly those dealing directly with the psychology of human motivation, in which you are asking how people go about making decisions (which seems, at first blush, like what the philosophers are and were asking... But let that go for the moment.) The difference between science and philosophy has been carried down to now as a missing middle in this sense: that they are two different kinds of things. Not, as I shall propose, that *[philosophy]* is simply a larger universe of inquiry than any one of these that we have been calling science, but they are the same thing at any given level of inclusiveness. That the philosophy of atoms is exactly the same thing as the science of atoms. That the philosophy of human motivation is exactly the same thing as the science of human motivation. And suffice it for the moment, until we come to it inescapably, note that if you get different answers from these two areas, we already know in terms of behavior that one or the other at least--maybe both--are wrong.

But if we get a different answer in regard to human behavior out of what the man on the corner calls science and what the man in the ivory tower calls philosophy, then the children of both know that somebody is in error. Then we ask ourselves, well, which is right, the philosophical method or the scientific method? Which is correct, the scientist or the philosopher? Then somebody studies economics or sociology or some sort of science and thereby gets himself confronted with that question, and his response has been several. But the modal average is: they're both right or, don't look at it. But of course students won't let you not

look at anything. They peek. And what you do is say, well, at bottom [*philosophy*] is the determination of the ends. Now, after you have determined that we use this to attain those ends, the general situation in the literature you will note, and many times deliberately set forth--as by Lionel Robbins (bless him)--that the ends are determined philosophically and all the rest is determined scientifically. Sometimes it is said this way: where you are going is determined philosophically, and how you get there is determined scientifically.

Now, in finding out how you get there, you may come out with an inequality with the necessary corollaries of where you are going, and when that occurs, somebody is wrong. We already know that much. Then the immediate question, of course, would be, is it necessary and inescapable that these two have common points. If it is necessary and inescapable, then these aren't different things at all--science is the same as philosophy. If this isn't true, it seems to me, it would be possible to make the two impossible although existing in the same frame of reference.

lecture 3

Last time I think we were discussing the concurrence of the development of what we call philosophy and science. I tentatively defined science in regard to building generalizations in evidential terms, capable of verification through singular applications of those generalizations. I indicated that the building of a generalization and the process of verification through application were not separate, nor could either exist without the other.

At the same time, I think that I indicated that philosophy is an effort to think coherently over the entire area of our experience, which proceeds in the identical fashion of building generalizations which are inclusive in the sense that they are common to all human beings, and verifying or negating the validity of these generalizations by observing singular applications.

Of course, those two statements are not only generic, they are identical, or almost so. And there is a reason for this conformity between them. The reason is that science and philosophy are the same thing, that is, the same intellectual process. They are the same kind of human operation. The old caption "natural philosophy"--which was how the degree Doctor of Philosophy got its name--was a doctorate in natural philosophy, as the sciences at that time were called. And I think that happened because of the realization that they were the same. Since then, however, we have learned to avoid that realization in some detail. But I think that when we get down to it, the only difference between science and philosophy is in what statisticians call the universe of inquiry, the universe of applicability of the principles.

In the case of philosophy, it's an effort to develop the principles which are applicable to all known phenomena. In the case of science so-called, deliberately restricted applicability. The science of optics has to do with looking at things. There is such a thing as just looking at things, and you just say, "Now we are going to inquire into this looking and develop principles applicable to that phenomenon." Now as you work back toward more inclusiveness, you work back toward philosophy. And when you hit philosophy, you hit all humanly discernible phenomena. And so, I would take the position that philosophy is the all-inclusive science. Individual sciences are simply singular applications of philosophy, differing only in the inclusiveness of their respective universes. And I would like to try to get rid of what seem to me to be unconscious misconceptions relating to these two general working concepts of science and philosophy.

The question is whether philosophy and science are two opposite extremes of the same attribute, whether philosophy deals with the extremely normative and science with the extremely not-normative. If what I have just said has any validity at all, of course, the answer must be no. Science and philosophy are not differentiable on that sort of basis. They are not distinct by virtue of the kind of phenomena investigated, nor in terms of the degree of any attribute in that sense. If it be true that philosophical principles are to be applicable to all human level

experiences, all communicable experience, they are not distinguishable as being opposite extremes of the kind of thing considered. Nor are they distinguishable in regard to questions of fact or not-fact, or more or less fact. Philosophical questions are as much questions of fact as any scientific questions are. They are uniform and parallel in all these senses, and likewise in their kinds of operations. They are not opposite extremes of an axis depicting any combinations of attributes, and they are not different in a missing middle sense in which one goes so far and stops, and the other takes up and continues. They cover the same areas and explain the same things in the same fashion. Now, they may both be mistaken, but there can be no contravention by one of the other in fact.

All of these things are, I think, frequently misconceived without articulation or conscious comprehension. We say "That is a philosophical question!" meaning not factual but something else.

STUDENT: *"In common argument it is usually put forth that you can corroborate scientific explanation, such as the Archimedes Principle, but you cannot do so in philosophical explanations because of unpredictability of human nature. How do you explain that away here?"*

Well, of course, it is clear that my position would be the contrary of that. And I think not only contrary, but most frequently it is easier in fact to corroborate, to demonstrate the philosophic than the scientific. We have been acquainted with those inclusive facts longer, and often see them more clearly.

Economists generally set up the distinction between philosophy and science in terms of value: the latter has nothing to do with value, but the former does. It is a different kind of thing and not quite facts in the sense that science is facts. Science deals with opaque facts (that's Veblen's way of saying it), but philosophy, leave that to the philosophers, under the supposition that philosophy doesn't really mean anything anyway, and no one listens to the philosophers anyway.

Economists set up their science of human relations in those functions involved in providing goods and services, or the means of experience. And in that provision, the analysis comes to focus in ... the operation of the human mind, the kinds of judgments he makes, the combinations of the factors, how the entrepreneur makes up his mind, and what forces are at play in causing him to judge this or that or more or less. And every consumer buying more chewing gum and less axle grease because of variations in price levels. No value, says Lionel Robbins; they make judgments. Under what criterion? Well, the criterion is the theory of value.

Now, how economists could have failed to understand that the very core of what they are examining is how people make judgments, which involves the theory of value, escapes me. And making a judgment, of course, ... involves the theory of value. And a judgment made is specified in a determinate way by the criterion used in choosing among alternatives. Yet we say we are not concerned with value judgments but with science. Well, what is science concerned about? Value judgments. And that's all!

When you get below that level ...

(Shall we say below? Notice the influence of the invidious connotations of the language in my speech, because I was about to identify, for example, a numerical identification and the listing of attributes as something less than, below, science, where science would involve the comprehension of the relationships. The difference between thinking and stacking things up. The difference between the theoretician and the clerk. The difference between the bookkeeper and the accountant.)

Well, I think there is a distinction there. I shouldn't have said "below." "Different than" would be accurate. One is the application of theory to the problems involved, and the other is a routine mechanical operation, like running through the multiplication tables over and over again.

You see, we try our best to make you into clerks, even in the first grade. If you spit over someone's shoulder in improper circumstances, the teacher makes you write on the board a hundred times after school, "I shall be a good boy." All the time you are thinking up ways to be as bad as possible, to get even with the unkind treatment imposed on you and thus, of course, like Adam Smith's economic man, accomplish a purpose which is no part of our intent.

Yes, I think philosophy and science are the same kinds of human operation. They all concern questions of fact. I never could understand how we ever got to thinking we have questions which are not questions of fact. We say, "Oh, that's a question of opinion." What do we mean? Well, we can mean several things, but we usually mean we don't know enough about it yet to identify the principles, so we have to guess on very light evidence, on a hunch as it were. Or, if you are talking about women, you would call it intuition. But they act on the evidence, and necessarily so. They are just much better at it than men, and much more frequently erroneous, of course. For thousands of years, they had to make up their minds instantly when they met somebody in the woods. That was an unfortunate example. Maybe I ought to stop this thing. Suppose you are a delicate [*cave*] lady and meet [*a cave man*]. You have to do several things correctly and quickly. With only the slightest indication of his behavior, you have to decide whether to run like the dickens or to try to vamp him or to try to avoid or fool him. Men have something of that experience too, but within greater limits. They learn more slowly and are more deliberate, or at least time-consuming, in their judgments.

We frequently have to make judgments on very slight evidence, do we not? Sometimes after extremely long and careful consideration we still are so deficient in the facts at hand within comprehension that we have to make an extremely tenuous guess, we say. And the fewer the facts, the more apt we are to make the wrong judgment. But we are acting, note, as a scientist. We are adding up evidence and drawing conclusions, the conclusions being a generalization that we then apply to the immediate matter at hand. And if this singular application doesn't work, we change our hypothesis, whether it be "philosophical" or "scientific."

There are several attributes of what we generally call science in the factual sense which it is presumed are not true of philosophy, but they are. One is that you can't repeat because you can't control conditions, you can't experiment as in a physics laboratory. But it is also true that you can control some things better in human relationships than in a physics lab; you can repeat more nearly one particular sequence in human affairs than you can in physics. You can repeat the rate of national income over and over again, going through the same operation counting the same things, with appreciable confidence, much more accurately than you can control and repeat the release of mesons from an atomic structure in a cyclotron. You can control the determining conditions.

The determining conditions of national income are much wider in scope, and the theory of probability is much more definitively applicable, because of the greater number of items which make up your aggregate estimate than one electron. It is much more controllable. The two do not differ on that score, do they?

[*Consider*] the question of opaqueness. Physicists and physical scientists operate constantly with such constructs as time. How opaque is time? How verifiable is time? What does it look like? Opaqueness means you can look at it; you can sense it. Well, I can sense anger much more easily than I can sense time. And I can count sacks of flour and hours of labor, and--bless my heart--even pain much more confidently than I can sense time. The physicists now define time as the sequential relationship of events and/or objects. That is to say, time is time, whatever it is. Very frequently that trick is pulled, you see. In all analysis, when you encounter something that you don't quite know what to do with, you say it in one word, and then in ten words, and then you've got it. That is the dictionary operation, and it is

useful because it frequently stirs up some cogitation. It may lead you to investigations that will permit you to explain. But dictionaries themselves are not very helpful in explanation.

Well, what is time? My point is that science deals with things that aren't opaque and philosophy deals with things that are. It may be said that philosophy deals with ends, and economists frequently say, "The ends belong here, and we have no concern with them. We are just concerned with how you get those ends." I'll bet one third of economic theory textbooks start out that way, and then tell you what ends you ought to have and why they are valid. But you can't explain means without ends. They are understood either tacitly or explicitly, and any student of recent American philosophical developments understands there is no distinction between means and ends. The whole of human experience has been with the continuum. No one has ever arrived at any end. Things never stop, they happen. We have never had any experience with cessation. There are ends of particular things, lo, even of you and me. But you make a pretty good humus for poppies, and "every hyacinth that the garden wears dropped in her lap from some once lovely head." You may stop smiling or grinning or fighting or loving, but so far as we know the whole of human experience has been of unceasing process. There is no opaque evidence to the contrary, and there are countless billions of evidences denying the end of anything.

So far as we can tell, we are concerned with processes and causal relationships between them. It is simple and obvious in most instances, as when you play marbles you apply pressure and release it and the marble shoots away. But it is harder to sense such process with value judgments; it is less opaque. An idea is a fact, but not like a brick or a goose. You may call it an opinion or something, but it is a peculiar kind of fact. What kind? Well, you get into various attributes such as lack of opaqueness. But time is not opaque. Neither are weight or velocity or color. All organized bodies of inquiry are concerned with facts. And some factual things are opaque and some are not. And so, in this course we shall proceed as if, when we ask a question, we are questioning facts.

lecture 4

I would like for us now to consider the relation between value theory and social analysis. I suppose that the relation is fundamentally obvious and simple, after you identify what you are looking for in the theory of value. That theory identifies the criterion of judgment, that in terms of which you choose between alternatives. But that is simply an identification of what it is; that does not help you too much in working out the theory of value except in the sense that you can't work out a theory without identification. What we want to know or what we want to get in view of in this course, what is the criterion of judgment in fact?

I indicated already that there is some debate about whether that question is a question of fact. It is, I indicated, the point at which most distinctions between normative and positive take shape. Things having to do with value are being considered normative, and being considered in some sense or other not practical. That distinction, in any of its dozens of forms, is related to the distinction between what is and what ought to be. And I would like to say a few things about that particular problem. It is not worked out in the literature, and I think we ought to look at it very carefully, because you cannot understand the factual character of the referent for value theory unless you get this relationship in mind.

It would seem from reading the literature and from listening to spokesmen that the relationship between what is and what ought to be is the relationship between the run of the facts and what someone wishes the run of the facts were. Or what someone thinks the run of the facts ought to be which, of course, presupposes a theory of value to begin with. Thus you get into a sort of tight little circle which I think is a stumbling block to most of the more advanced thinkers who have been concerned with this problem of value. Furthermore, it seems to me

(and I have a guilt complex about it because it seems fairly simple and completely obvious) ... that our difficulties for the most part have been semantic in their immediate origin, and then work out into blockages of various sorts. So I urge you to consider the area on your own very carefully.

The run of the facts involves ... all of the items in the continuum under consideration which are causally related in causal sequence in the process, any one stage of which is causally related to each preceding stage and chronological sequence. The continuum in social affairs at all points involves purposeful human behavior: choices are, in fact, made, which is the exercise of valuation. That is to say, there is an application of the theory of value at all those points. And those points are all points at which human beings engage in consciously purposeful behavior, at which judgments and choices are made. That is the most obtrusive fact in the run of the facts about human behavior, more obtrusive even than Veblen's habituation, because it is more nearly constant. Habitual behavior is by definition not obtrusive, it is already known and does not divert or excite opinion. It is a matter of course which you can anticipate because of the established habituation.

But at all points at which judgments are made, however minute, however inconsequential, ... there is the fact of the exercise of judgment and the application of value theory. Now you can see what I tried to prepare you for when, some days ago, I took the position that there is no criterion of judgment in fact applied which is different than the correct theory of value, taking the position that that would be a paradox if it were [*not*] true. We are asking what in fact people use as the criterion of judgment in social affairs. We are not asking what people ought to use. We are not raising the question of creating a universe to fit the specifications of the theory. We are here asking what people do in fact use as the criterion of judgment.

Already it seems quite clear that every person does in fact use a criterion of judgment, because every person does in fact judge very frequently. Now most students of the problem have got that mixed up with accuracy, and have accuracy mixed up with science and the scientific method. And for some very clear reasons. But you can make mistakes scientifically, and you can make mistakes in your value judgments, without which there is no science and which mistakes will lead to constant error. So there is some peculiar relationship between value theory and the accuracy of judgments in the application of the theory.

But I want you to see first that we are asking what in fact people do use in making value judgments. And here is where I differ most radically with the more able scholars in the field, and somewhat self-consciously because of the terrific contributions and accomplishments of these persons, particularly John Dewey and C.E. Ayres. You recall that I took the position some days ago that there is only one criterion of judgment that is used or ever has been used or ever can be used in making value judgments. The most you can say to the contrary, I think, is that persons have tried to use other criteria. There can be no effective and causally determinate use of other criteria if there be such a thing as value in fact. If there be such a thing in fact, it is an attribute of human judgment. It would be a paradox to say people apply other criteria.

I think this is the blockage in the work of the best scholars in the field. It seems still to be true in the thinking of John Dewey (after bowing down three times in that direction to be sure we recognize his dominance. And I mean that instrumentally.) He has done more than any other living man, but it seems to me he is simply mistaken on the matter, and has convinced Ayres to the same effect, that there is no paradox at all in the position that people in fact apply the wrong criterion of judgment and, at the same time, that the criterion of judgment is a question of fact. It's like the classical theory that all deviations from what they prescribe as the universe under investigation are exceptions to something. Exceptions to what? Well, exceptions to the universe under consideration. Are they not part of that universe? Of course they are.

Now, Mr. Dewey is quite right about his identification of that criterion and its character. But it seems to me that he blocks us in our efforts to interpret what he says about it by admitting for consideration the possibility of other criteria being in fact used, in fact applied, and then to say the criterion is something else. I submit that that is a genuine paradox and therefore impossible. That is to say, they can't both be the case at the same time. To exclude something from the universe that is admittedly part of that universe is a paradox. What happens is that we try to apply something other than the criterion and thus make mistakes that we would not make if we didn't. We would still make mistakes in applying the correct criterion, but they are different from the mistakes that arise from application of the wrong criterion. There are other origins of error in judgments than the criterion. The importance of the criterion in that respect is this, it seems to me: it is involved uniformly in all judgments, and thus if it is in error, all of your judgments are in error when you try to apply them except by some sort of accident.

Now, back to my positive position in the matter. It is impossible to apply an erroneous criterion. The question of value is a question of fact: what is the criterion of judgment. It is a fact that people think certain things ought to be, and they think certain criteria of judgment ought to be used. The criteria they try to use may not in fact be the criteria that are applicable. If a criterion isn't applicable, it can't be applied. So we avoid the paradox that might be stated as the application of something which has been proven inapplicable.

Now I want to repeat myself often in this course ... to help you work through what might strike you as troublesome in your reading, as something wrong when the analysis proceeds as if you were considering what people are applying which is inapplicable. The inquiry can most fruitfully be approached by trying to find out how persons try to apply an inapplicable theory of value and, if inquiry reveals that they in fact apply a criterion of judgment, we have to admit that it is applicable.

It turns out, if I am correct about it, that what in fact happens is that we frequently try to apply a theory of value which is inapplicable, which is untrue, and thus come out with the wrong answers that fail to solve the problematic situations with which we are confronted in the social area. So the first point I would like for you to get in mind is that our analysis should proceed as an inquiry into something that is, in fact, there: what criterion is used in judging among alternatives, remembering that we are not permitted intellectually and integrally the luxury of paradox, nonsense, or irrationality in our pursuit. If we were, if it were all a matter of predilection or desire, then there would be no point in your coming here and allowing me to waste your time. You already know what you like, don't you? Most of us could answer that quite easily. Most of us could say, "The criterion ought to be what I say." That would make it just Jim Dandy, wouldn't it, if you used for the criterion of judgment just what I say, and when the world wants to find out about anything, just use my opinion. And presto bingo, it is done.

But facts have a peculiar persistence, even when they contravene our predilections. And the fact of valuation has no different persistence than any other facts. They're just like a flat tire on your car: predilection or desirability are irrelevant to fixing it.

And so in this class, we are not asking what the criterion of judgment ought to be. We are asking what is the nature of the criterion of judgment applied in choosing what ought to be. Now there is a question of fact. That is to say, what ought to be is a question of fact. And we can make mistakes there just like in our multiplication tables or anything else. The difficulty is mostly semantic. The relation between the run of the facts and the ought-to-be-ness involved is difficult but not complicated. The criterion is a fact, and what ought to be is a fact. At any instant in anyone's experience, the present existence of the fact of judgment is a present fact, even though that judgment be about a future attainment. The rational faculty in human behavior connects the present and the future. We know for certain that the future will become the present, and our judgments now are questions of fact about a particular operation of choosing

among alternatives the functioning of which are projections in human imagination into the future. You can't make a judgment in the past, in that sense. All judgments are connections between the present and the future; they are hypothetical projections of choices within one's area of discretion into combinations which are not yet. If the combinations exist now, you aren't making that judgment; it has already been made.

The question we are trying to resolve here is what is in fact the criterion of judgment among alternatives, and thus in the determination of some future human behavior in relation to other human behavior. And my position shall be that the error involved in value theory is not the application of an inapplicable theory, but rather efforts to apply a theory that cannot be applied, thus forcing judgments exterior to the facts of the universe composed of the things chosen. We shall be asking ourselves what is in fact the criterion of judgment which is in fact applicable, not in terms of application of that which is inapplicable. We shall not speak of the application of the wrong theory of value, but of efforts to apply the wrong theory plus wrong judgments which result from that error.

I shall take the position that there is no escape from, and there has never been any application of, and there cannot be an application of, anything but what is in fact the criterion. And again I warn you about the semantic difficulties involved, because the ordinary presentation of our problem at this point is so sloppily done: that by "applying" the utility theory you get this answer. We all talk like that, don't we? Everyone who hasn't had this course. We say "in applying utility theory," under the assumption that it is a criterion of judgment and can be applied. Observed mistakes are not positive eventuations of actual applications of a mistaken theory, they are eventuations of efforts to apply a criterion which is in fact not a criterion and, therefore, the eventuations from which are not in fact resolutions of the situation in which the alternatives must be chosen.

Mistakes can arise in applying the correct theory of value as well as in trying to apply incorrect theories. The position that once you have the correct theory you can go directly to the solution of problems is wrong. You are only half way there.

Now we have the problem here, you see, of identifying the actual criterion which you are using all the time, but you think you are using something else. We mistakenly identify the theory of value, and therefore the theory of valuation as well. Our inquiry must be into the rational determination of rational and irrational judgments, their rational explanation and identification. It is inaccurate to say "In applying the utility theory of value," but not "In trying to apply the utility theory of value." The two points I want you to get are:

- 1) Judging what ought to be enters into the immediate run of the facts as an item in the continuum of judgment;
- 2) We must distinguish trying to apply a criterion of judgment from actually and effectively applying it.

....

lecture 5

STUDENT: *"It seem to me that yesterday you were--maybe intentionally or not--getting at the point that, although there can be only one theory of value, there may be various theories of valuation which may be applied to certain universes of inquiry."*

I should not have said--if I did--that there can be one theory of value. There can be any number of theories of value, but only one correct, applicable theory of value. In the same way, there can be any number of theories of gravity, but whatever gravity is, it is one thing which must be explained by a single theory.

Now in the relationship between the theory of value and the theory of valuation, the best treatment of which is John Dewey's contribution to the International Encyclopedia of Unified

Science on that topic [Theory of Valuation, 1939], there can be any number. There must be as many theories of valuation as there are areas of application. How you go about measuring value or identifying comparative value is determined by the things which you are comparing, is it not? That problem frequently arises and troubles students, and it involves recognition of the difference in components of different kinds of problems. Now, I think that it should be possible to state the theory of valuation for any category of problems which have sufficient genericity to permit common identification.

For example, there should be a theory of valuation in the totally inclusive sense--all valuation. All actions of evaluating have certain common attributes, otherwise you would have no such category. You could not speak of them as all being evaluative, or actually attaining valuation. Such a comprehensive theory would be inclusive of the subdivisions of valuation. The subdivisions will require different statement but include the general theory.

It has been argued that a general theory requires a common unit of measurement for all problems, but that is mistaken. There is no common unit of measurement between the efficiency of a telescope and the efficiency of an internal combustion engine. The problems involved in the functions of a telescope are not the same as the problems involved in an internal combustion engine. We measure the efficiency of the engine by the ratio between energy input and energy output, meaning its energy consumption in operation. But we don't measure energy consumption of a telescope. It performs a function of directing certain light rays in certain patterns, not energy output functions. So, we have a theory of the efficiency of telescopes. But if you try to measure efficiency in the same units and with the same attributes when comparing two telescopes built for different functions, you cannot ask the astronomer the question which is better, the Mt. Wilson Observatory telescope--the 200 inch one--or the McDonald Observatory telescope--the 100 inch one made for taking pictures. He cannot answer. Each is best for its function--one for seeing great distances and the other for taking clear-cut pictures. There is no common unit of measurement or comparison between those two instruments. How can you compare accuracy of a picture with distance? I don't know. But both telescopes were built scientifically, applying the instrumental theory. If you try to choose parts for a telescope non-instrumentally--meaning apply a non-instrumental theory--you just don't have a telescope.

If you try to inflate a flat tire--my favorite example--by blowing hard verbally, that's the wrong theory, you can't apply it. It won't work.

(I'm sorry I said that. This whole business of "work" has been so kicked around that it practically doesn't "work." I filled a tire with sand once, and it sort of worked. You can go places on it and it won't destroy the tire; in that sense it "works." But it doesn't work nearly as well as air. And "as well as" is what we are trying to get at [*--judgments of relative effectiveness, of working better or worse*].

[*Take the example of the fascist.*] He's got two theories which necessarily destroy each other, so to speak. He wants to kill everyone except those who agree with him, but then he doesn't have anyone to kick around, and that's what he lives for--to kick people around. That's the criterion of judgment of fascism: power. Put in vulgar terms, power means discretion over behavior of other persons, and it doesn't mean discretion in the sense of teaching them better ways. It means making them behave like you want them to behave, and that means kicking them around. Fascism is a validation of kicking people around with immunity. And the most efficient structure for that function culminates in one person, the leader, the great man. Otherwise, you see, the theory would be incomplete. That's the only thing common to all patterns of fascism, but their function is common and the institutions through which that function is performed depend on whatever is available institutionally. In Germany they used one set of institutions and in Italy another. But they all tried to perform the same function, so that certain

persons could kick other people around. That's why they were so frightened of and hateful of the democratic idea, which is the antithesis of fascism.

STUDENT: "Is 'what is' inclusive of 'what ought to be?'"

Well, you are asking one of two questions, and I'll answer both. Is "what ought to be" included in the whole of "what is?" Yes. The valuation activity is included in "what is," and that involves the determination of "what ought to be," or estimations. It was included in the classical theory in its early stages, and in Utopian social analysis and anarchistic analysis. The assumption of rationality in human behavior.

Now the other question. Is "what is" "what ought to be?" Again, yes. The determination of "what ought to be" is a constant part of "what is." It is the key to the relationship between present and future affairs, and is therefore the focus in analysis looking toward any inherently continuous development. People are rational in the sense that they can reason.

This whole ancient controversy between rational and irrational human behavior strikes me as surprisingly naive. It seems to me to be simple and obvious that humans behave rationally in the sense of using reason to select alternatives. They may make mistakes, but they are exercising the capacity we call reason. And they exercise it where it is applicable, in choosing among alternatives. In all problematic situations we exercise reason to some degree, and that is a constant situation in human experience.

Where it is not possible to apply reason, we don't apply it. Where the problems have already been solved and the response is repeated, we respond by habit. You don't have to think about it. The controversy has been on this level, "Are human beings creatures of habit or are they rational?" Why, heavens to Betsy, they are both. We use habit where habit is "useful"--which is nearly as bad [*as the word*] "works" until we get the identification of value clearly in mind. Then it all becomes clear so that you can use "works" or "useful" meaningfully thereafter. We use [*these words*] where they functionally satisfy the requirements of the situation at the moment. And we use reason where *it* functionally satisfies the requirements of the situation. And that is not a matter of choice. That is a matter of fact, the determination of which is what it is irrespective of your choices regarding that matter. Habits are applicable where solutions to particular kinds of problems have been attained with sufficient accuracy to permit continued operation without serious infringement of the continuum in question.

We walk habitually. We put one foot in front of the other without considering the problems involved in the process. But when we first learned to walk, it was a terrific exercise, one of the most exciting experiences that humans encounter. Every time I observe it, it strikes me with great admiration. Here is a little fella, smart as a whip and about that tall, usually around a year old. He is watching other folks, who seem to him about as high as that ceiling, walking around as if there were nothing to it. And he has a little brother or sister who runs around all the time. You learn to run before you learn to walk, you see. You find out later that you can do it at almost any speed you want. Now it looks like a desirable thing to do, and he figures out the theory pretty carefully. He tries it, and is admirably padded in the right places to give him the possibility of repetition. He does it over and over and the consequences are about the same. But watch him closely. He figures it out a little at a time. He usually holds on to something, stomps up and down and kicks things. Then he pulls his leg up and puts it in every direction until he gets it out in front, and then he grins. By golly, he made it. The "instinct of workmanship," literally. Then he has another problem. He's got that other leg back there behind. Always got a problem. So then he's got to think it over. And he picks it up, pushes it around, maybe puts it down in the wrong place. But finally he gets it out in front, and then he grins all over again. And it just exhausts him at first. Then, when he solves it a couple of thousand times, he gets to where he can sort of do it without thinking. Then he stops thinking about it and starts thinking about other

problems. Walking then becomes a habit. But in the initial establishment of the pattern, he had to solve a problem with every move. Now, he is built in such a fashion that he learns it fairly easily, unless there is something wrong with him.

That's true of everything we learn. Watch a brand spanking new baby learning to suckle. It is the only way he can learn to eat very readily at that stage of his development. But he learns it right off the bat. First the mother's breast or an artificial bottle: you put it in his mouth, and he doesn't know what to do--just sort of random behavior. Then the mother or physician or nurse activates the muscles around the mouth, and he gets it. Then he really goes to town; it doesn't take him long--maybe thirty seconds, maybe a day or two. But he learns pretty fast, and it just tickles him pink--just the way you feel when you write a good examination or do anything well that fits together, that solves a problem. Efficient relationship is established.

We can call it (heaven forgive me) "human nature." Human nature in the sense that we don't sit down frontwards; we sit down backwards because we are built that way. We learn to walk fairly easily because we are built that way, even though the operations involved in walking are terrifically complicated. It just happens that we have bifocal vision, and also semi-circular canals in our ears. Little bubbles pass over the cilia, giving you the position you are in, and you have to learn to respect those bubbles. At first, you have no respect at all. Babies really like standing on their head better than the other way when they are first born; they have been doing it for nine months. And even after they are a year old, pick one up the wrong way. He particularly likes that. Everything upside down amuses him and he likes it. When he grows up, he won't like this upside-down business. He is built that way. And when he walks, all his muscles are involved, while he constantly estimates different distances which permit him to use the semi-circular canals in walking, to compare past experiences with what is going on at present, the feel the pressure on various parts of the bottom of his feet. They tried experiments in which they made shoes that put pressure on your toes when you stood back on your heels. People did the darnedest things you ever saw.

A newborn baby learns readily, and that requires working out the theory. In some sense, he establishes control of his nervous operations to direct the activities which solve the problems at hand. Humans constantly do that, choosing one pattern of behavior as preferable to another, as more efficiently operative. In that sense, valuation is constant. It is the selection of proper behavior, choosing among alternatives that are available in the sense that they may be chosen but are not yet operative. That selection determines which alternative becomes operative, and that is the truth in the dictum, "Man is captain of his soul." He determines the future through operations we call logic.

All living beings operate that way. They also operate habitually in response to problems which have been frequent enough to allow habituation to be established, and that necessarily is far and away the larger part of our behavior. If it weren't true, there would be no civilization. If you had to figure out everything all the time, you would never figure out very much because you would have to figure out the same things all the time. If you start at zero, birth plus one hour, what is your situation? Well, you've got to figure out the theory, as it were. you've got to learn to suckle. Then you stuff yourself and go to sleep, after burping a time or two. Then you wake up and start yelling to the high heavens for the nurse or any similar source, and you want to eat. But you've got to figure it out again, how to suckle, until you get the habit.

That's what jars the intelligent conservative at any suggestion of change; he gets the sense that you are going to disrupt his habits and do him some harm. His reaction usually comes from repeated experience of harm done by efforts to apply the wrong theory. And you can easily realize how an intelligent person could form that habit of response in a situation in which the theory of progress has not been worked out sufficiently well to make it available to the

community at large. He will recognize the inadequacy of the theory, and habitually distrust proposals of change.

And so, young radicals and most heterodox folks are inclined to believe that conservatives are by nature stupid. They aren't at all. And you will note a tendency on the part of Disraelis to be conservatives much more than Blackstones. Blackstone never had the experience of constant repetition of mistakes like Disraeli. It takes a very good man, we say, to be raised on the wrong side of tracks and not be a conservative.

The whole idea of what generates heterodoxy is in error. It comes from the Marxian idea that the underdog will rise up and shatter the overdog and then, depending upon what school of Marxism you belong to, there will be only one kind of dogs--middle or over or under. Proponents of heterodoxies almost always come from groups which have had fortunate experiences in the form of abstention from repeated error as aberrations of the established order. They never come out of the underground. No Frenchman of any intellectual stature in the heterodoxy sense ever came out of the Apaches.

Now, it is true that the great leader, the great thinker, comes out of the underground, and he comes out so seldom because it takes a great mind constantly to encounter repeated error and not become extremely conservative. And most of us are not equipped that way. Consequently, the leaders come out of those who have not been overburdened with repeated error. They are not afraid to examine possible variations. You will find revolutions are not led by men from the other side of the tracks, and the men from the other side of the tracks who follow them don't go with them on heterodox terms. They go on some orthodox terms. What do you think the religiously heterodox are doing in the declining period of the feudal era? The most conservatively patterned groups in any society are in the poorest communities.

lecture six

STUDENT: *"Is knowledge the same thing as theory, since it functions to bring order out of confusion."*

.... No, in that the two terms are usefully separate. We can't interchange the two without losing some cutting edge of either. Theory I think we talked about sufficiently to understand what we meant by that symbol. Knowledge, of course, is involved in all theory. But I think the community, along with John Dewey, uses "knowledge" as a symbol for particular items at whatever level: you can have knowledge of a theory, the theory can be knowledge, and items of which that theory is a composite can be knowledge. Note that Dewey's title was Logic: the Theory of Inquiry, not Knowledge: the Theory of Inquiry. His effort was to identify the functional operations of what we call knowledge in logic as a theory of inquiry. Dewey's thesis is that you have knowledge only in that you have theoretical operations appertaining to the items of which you have knowledge. That is to say, only in so far as you can place it causally in the continuum of which it is a part. That placement is what we call knowledge. It involves comprehension of the causal relationships with other items in the continuum of which it is a part. And that, of course, is an operation of theory.

So theory and knowledge are separately identifiable, but they are not separate in operation. Just like goats and kids: you can identify them separately, but you can't have either without the other. And so if you use the terms interchangeably, you lose the cutting edge of both.

STUDENT: *"Dewey said that the reason for growth of the idea of two kinds of reasoning is judging things out of context with the whole. Now you have just said knowledge is the proper placement within the continuum, thereby sort of ... The two types of reason then become what? Lack of knowledge?"*

That is an example of the difference between statement of various applicabilities of theories of value, as Dewey put it--and as I think it should be put. You see, if you think of theories of knowledge as generic in any sense other than as claims to explanation, you get into the dilemma ... of investigating the application of non-applicable theory. The two types of knowing and of reasoning that Dewey talks about are reflections of that confusion, as is Ayres's questions--which he stays not to answer-- "Can you know something that isn't true?"

If you grant that you can know something that isn't true, you assume a sort of impossibility of resolution in terms of sharp, specific identification of the theory of value. That implies two kinds of knowledge, knowledge #1 involving theoretical comprehension of causal relationships, and knowledge #2 which is non-causally related, separated from the universe.

An example: "Art for art's sake." "If eyes were made for seeing, then beauty is its own excuse for being." This is the difficulty Dewey gets into (if I may criticize Professor Dewey, and I may) with various applications of value theory. "If eyes were made for seeing," then beauty couldn't be its own excuse for being. There can be no such thing as self-contained meaning. You can't say "Beauty is its own excuse for being," without giving an excuse outside of beauty, like eyes. The poets--and heaven knows we allow poets things we won't allow anyone else--even the poets cannot be permitted complete nonsense.

The effort at independent identification of anything is beyond the realm of social theory. I do not question the private experience, non-communicable and non-social, of anybody. That is your business. I would object to any effort to infringe upon that. But I do think that it is literally and exactly impossible to know something independently of everything else. You can believe something on quite other grounds in private comprehension--knowledge #2--but you can't operate socially on any other grounds. You may operate between yourself and God, whatever you conceive that to be--and I suppose there are as many conceptions of God as there are people who conceive it--but you can't operate with me on those grounds because when you operate with me, it means communication, and you can't communicate those things.

What we are concerned with here, of course, is social value, and I take the position that the knowledges which are operationally active in social behavior are necessarily of the knowledge #1 type, not knowledge #2. If you grant applicability to knowledge #2 that isn't true, you claim applicability for inapplicable theory.

STUDENT: *"You raised the point of Ayres's example [in The Theory of Economic Progress] of mechanics [making] instrumental choices of tools, and the tendency of people to say they prefer a certain tool. Then he went on to say that art can be instrumentally evaluated, but the tendency was for people to evaluate it in terms of autobiography. I was never clear on establishing the instrumental validification of art in other than autobiographical terms."*

What Ayres points out seems to me to be true. Very frequently two kinds of problems are confused in the aesthetic experience, which is always involved in the fine arts. One is autobiographical, while the other is the art item itself. When you say, "I like this picture as compared with that one," you can be saying either of those two propositions. You can be saying you're the kind of guy in whom desirable responses are aroused by that sort of picture, which is autobiographical. Or you can be saying one picture is better than the other. Both propositions are genuine, but they are different and unrelated as operations in aesthetics even though expressed in the same words.

....

Art may be of two kinds--creative and non-creative. Both have the common function of expression, as distinct from the crafts. Crafts are involved in all art, but art means expression, I think, to all artists. The creative artist is one who conceives things others have not yet conceived or seen. He creates things and then presents them to you. He may be a sloppy

craftsman. Many of the greatest artists have been pretty sloppy painters, as many of the greatest composers have been sloppy musicians. And frequently the non-creative artist is a craftsman, but a craftsman in communication. That's what makes him an artist. A creative artist is a craftsman in communication who creates something for you to see even if it is a simple picture with a narrow audience.

Great art means greatness in comprehension. That is why we say of some of the poorest craftsmen that they were great artists. Especially along about the 15th century when they first began to get hold of permanent pigments, linseed oil. And, gosh, they got good. They had been storing up things they couldn't accomplish with other media, and they turned loose and really went to town. And we are doing it now again. Example: perspective. No depth to early pictorial art, no matter what the conception. Finally, an artist saw how to get depth--one building looks bigger than another, but it looks littler than I am and the other looks bigger than I am. Great stuff. That's the function of an artist. He is a teacher. All creative art is teaching, but not all teaching is creative art.

Now, invention is the combination of existing tools. That is Ayres's thesis: invention is combinations of existing conceptual and physical tools. This seems to me to be incomplete and not too useful. The fact seems to be that invention may also be not combinational but extensional, linearly extensional, not compositionally extensional. Ayres doesn't say what I've just said because he was concerned with erasing the fallacy that invention is a matter of human genius, springing out of creative potency with no relation to anything but genius. He was so intent on erasing that fallacy that he couldn't quite grant what seems obvious to me that we do, in fact, create without combination. We conceive new forms which are modifications, not combinations, of previously existing forms. Modification in reference to the function of an item, not in reference to other items which have the same or other function.

.... It appears that people learn all of their knowledge #2 about the age of 50. They can't learn past that age because they get it completely comprehended and there is nowhere to put anything new. But with knowledge #1, the more you know the more you can learn. The more you can comprehend additional to what you now comprehend--witness John Dewey and Albert Einstein. With knowledge #2, the more you learn the less there is left to learn. It obstructs itself because it is not continuous, it fills in, it stops. It isn't knowledge because it has no possible verification in the sense of truth. Truth is inseparable from continuity.

Now we will have reason to examine two meanings of continuity and, within those, get at the theory of knowledge itself. It is related to the relation between social analysis and value theory in that, if we are prepared to understand such a simple thing as "what is social value?" we will be prepared to understand it as knowledge #1 and knowledge #2.

But I will have no further concern with knowledge #2. To hypothecate propositions which you know beforehand are impossible is to talk nonsense--the application of inapplicable theory. Knowledge is whatever it is, and you can hypothecate alternatives conjecturally, which is completely proper, as hypotheses leading toward critical examination of alternative formulations looking toward discovery of what is in fact true, what is in fact knowledge, what is the operation to be called knowledge. But you can't discover that it is two different things at the same time. Hypotheses of that character can be useful only in so far as they lead you to what is in fact true. What we want to find out is what is correct, not "what I wish were true." What you can find out inquiring into what you wish were true is the effects on what is in fact true of wishing that something were true. Again you have two different kinds of problems, one biographical and the other extra-biographical.

Knowledge is knowledge #1. You cannot in fact apply knowledge #2 in social analysis, there is no such thing. And the evidences are more complete than that the sun will rise tomorrow. That is to say, we can operate on them with greater confidence in applying the theory

of probability than we can act upon the hypothesis that the sun will rise in the morning. When you apply a knowledge, in the sense of making it a functional part of a continuing operation, that is knowledge #1. You may use it for the wrong purposes, but what you apply is interrelationships, not isolated identification.

lecture seven

STUDENT: *"You were talking about theory and problems being operationally related, and in order to be operationally related, [the theory had to be true] to fit. I was wondering if one could have a partially correct theory, related to a problem but which would not resolve the problem?"*

No. That is an important matter which you are getting at.

What happens is this. You apply a theory, part of which is correct--not which is in part correct. You cannot apply a theory which is partly incorrect. the "partly incorrect" concept doesn't make much sense, if what I have said is correct. You work down from more inclusive theory toward theory applicable to restricted universes you can dissociate, as far as your conscious apprehension is concerned: the theory which you are applying and the basic theory which you hold or think you hold. For example, you can start with a theory of value which you may be able to present in a fashion which seems to you to be complete and satisfactory. As you work down toward applicability to, say, the problem of eating breakfast, you can completely dissociate what you are applying from the basic theory, an application of which is several degrees removed.

You see, there are inclusive theories, the principles of which are supposedly applicable to all human experience: philosophical principles. We apply these principles or philosophical theories to broad or inclusive subdivisions of human experience the inquiry into which we have advanced. Generally, they are physical science and social science, and each of these is divided into a large number of disciplines. Universities typically operate at these top two levels. Below that are applied fields such as engineering, and below that, the trades.

Each science discipline is made up of a body of theory which seems to have no relationship to the others, and which sometimes seems to operate under a distinct theory. You will find a person here and a person there operating through the application of different theories. You often hear, "Well, that may be true from the historical point of view, but from the economic ... or sociological ... or psychological standpoint, it is quite different." What is quite different? All they are saying is that sociology and economics are different, not that what you are talking about is different. So it seems to me to follow that either one or both of the two disciplines is operating under an erroneous theory. Naive physical scientists also think their disciplines are equally separated. It was once thought that biological principles and chemical principles had nothing to do with each other. Then we got into a whole area of inquiry which seemed to require being set aside for deliberate investigation, and we called it biochemistry, by which we mean complicated chemistry. And the principles involved there can do no violence to chemical principles, or one or the other is wrong. There is in fact unity of the facts and, therefore, unity of knowledge and, therefore, unity of theory in so far as it is applicable. It often happens that we apply the correct theory, but call it something else. We have been talking the utility theory of value for about 6000 years, and we have been applying something quite different all the time!

.... I used to amuse myself by kidding my physical science friends about the independence of physical and social sciences. If you ask them the right questions, you finally get them to decide that enzymes are purely a figment of the imagination, although they have isolated them and weighed them and had them in tubes. The problem you get the scientists to see is that they are concerned with a philosophical problem that has to do with "stuff," with matter you can bite and pinch and throw on the floor. It's a problem of identification and comprehension at the philosophical level.

What is wrong with their comprehension? What has dictated the current comprehension of an enzyme? Well, Newton's laws, one of which, for example, says "all physical change involves a release of energy." All chemical change, which is a particular category of physical change, is the same thing. But enzymes don't behave that way; they are outliers. They have a lot of consequences, and you can't live without them. But you develop them without the release or absorption of energy. In recent years that gave Dr. Einstein considerable concern, and he came to doubt his General Theory of Relativity by virtue of that fact, among others. He has in fact questioned its fundamentalness, generality, and foundation (not the accuracy) because of that phenomenon.

It's quite clearly a question of the criterion of judgment that becomes paramount at the border of human understanding--when you are working creatively toward discovery, invention, extended comprehension, addition to civilization--what we ought to mean by research. Everybody does research, but we have certain ceremonially identified behavior that we specifically call research--when you go to a university and get certain wiggly marks to put after your name, but not when you are just out in a field plowing. Not so strangely, the perpetual wailing of graduate students is that the staff won't let them do *[research]*. They make them go back and emphasize what the staff has said, which gives them the idea that the teaching staff is using them as an advertising means, and that if you do anything differently, and especially in addition, it's sort of an insult because, certainly, staff ought to have known it. But didn't know it, and so you feel squelched. In a sense, at the very spot where organized inquiry in the creative sense is supposed to be the sole function, we sort of don't allow it at all, but will allow it anywhere else.

That's not so strange as it may seem. We have always talked one way and acted another, necessarily so in so far as we have theory anywhere along the line between general theory and application.

....

In social science, there are some distinctly different kinds of problems, but not different principles. The problems are different because of the attributes of human beings. Among the things that permit us to identify the category "human being" is organized theory, and thus the capacity to teach, the capacity to do fine arts and sciences, the ability to find out theory and transmit it to other members of the species. That is peculiarly human. Other species work out simple theories, but can't teach them to others.

Our terrific advantage is that we can communicate theory and thus apply it to a problem effectively, and thus solve problems much more easily than any other species. That's why we have civilization and other species don't. We accumulate know-how as a species. We teach our young everything, while other species can only show them. Students with the advantage of the conclusions created by all previous experience can proceed to apply that theory and extend human experience in an amazing fashion. No other species can do that.

Differences among theories are not differences in whether principles that apply at one level also apply at other levels. Principles at one level cannot violate principles at another level. It doesn't make any sense to distinguish between the applied sciences and the pure sciences. The scientific process proceeds by a constant shuffling back and forth in terms of corroboration and reformulation and correction and extension. The supposition most frequently has been that a principle applied in physical science is different when applied in social science, one being scientific and the other not. Not really evidential, a matter of choice.

There is a matter of choice, in the sense that social theory is about choice-making things--humans. The real difference between physical and social science is the kinds of phenomena investigated. Humans are by their very nature choice-making things so, in human

affairs, making choices becomes a matter of justice. There is no justice between one molecule and another, but there is justice between one person and another.

The theory of justice, and I think this is as old as human thought, always takes one form, with the back door open in the form of another ancient human myth. The form the theory has taken I have been calling the equational theory, in which something is brought into equality or balance with something else, and thus justice is done.

That theory is not true, has nothing to do with justice and is, therefore, inapplicable. Efforts to apply it lead to the back door claiming that justice is done by fate. When it becomes clearly demonstrable in any particular instance that the so-called equational theory of justice is not applicable, we say it is just fate--perhaps the oldest of human myths. You can always use it as the back door to escape anything you are unwilling to face, especially if you are a coward, if you prefer to avoid rather than to understand. That's where making fun of people comes from, the moron's defense of name calling. Once you have said fate, you have excused yourself from comprehension.

In most of our experience we insist, for reasons Veblen was trying to get at in The Instinct of Workmanship, on understanding all that we can. We insist on exercising our capacity to reason as much as it is applicable. Ordinary human experience frequently doesn't provide sufficient opportunity for the reasoning activity of problem solving, so we create the need for reasoning. We may sit at a bridge table and have an elaborate system of creating problems that require judgments about who, what, where, and when. We try to solve them, and measure comparative efficiency with invidious differentiation of a score. We're built that way, in the same sense that we can't sit down backwards.

The problem of justice is, I think, the weakest area in general social theory at the moment. What we have been conceiving justice to be has been what I call the equational theory. A man pays his debt to society, and we say justice is done; an eye for an eye and a tooth for a tooth. In personal relationships, we apply it all the time: "He did so and so to me." What do we say? "I'll get even with him." And when you do, you feel all right; now justice is done. Of course, Jesus came along and said he didn't think that was the case.

What is price theory if it isn't an equational theory of justice in the economic process? It is a demonstration of justice when price equals cost, when reward equals contribution. How else could the theory parade as a demonstration of justice in any particular institutional structure, for example, the market process? We all say--but the socialists especially--that persons ought to be paid in proportion to their contribution. We say that, but we don't act that way at all. We couldn't solve the problem of carrying on the economic process that way. Note the Marxian theory traveling on the same proposition. The whole theory of exploitation involves the notion that it really belongs to somebody else and that the capitalist gets it and so is exploiting the rest of the community. The capitalist is getting something that isn't his, and that is unjust. He is getting more than he puts in; it's unequal, and therefore unjust. And the whole theory of surplus value is a demonstration that he gets something that he doesn't contribute. Now offhand, that seems to me to be so silly that it hardly requires consideration. However, it is the most prevailing, both laterally and chronologically and vertically as far back as you can find a trace. No one except a few lone deeply religious thinkers have questioned it, and not many of them. Confucius believed it, but Lao-tse didn't. It is a stumbling block.

lecture eight

Last time I indicated that there were two or three items which I wanted us to consider in the relationship between social analysis and value theory, one of which we mentioned as the equational theory of justice. We mentioned its place in social analysis as being somewhat

identified as the making of choices in relationships with other persons, justice and rightness being very closely associated in our thinking in a way which is inescapable.

We encounter justice in making estimates of two or more behavior patterns in relation to other persons. Some instrumentalists have tried to avoid the use of the word, and get at the same thing with other tools. If that be a valid procedure, then we shall have to discover those tools. I suspect it is in fact valid. What I would like to say about it is in contradistinction with the equational theory, which it seems to me is a result of [attempted] application of the utility theory. And one of the items in the demonstration of the long and continuous efforts to apply the utility theory of value is the unmistakably continuous and unexceptional use of the equational theory.

If it be true that the equational theory of justice is a particular application of the utility theory of value, and especially if it can be shown that it is uniquely and exclusively correlated with it, and then if it be true that we have always applied the equational theory in the matter of justice, then it would be considerable evidence that the value theory we have tried to apply has been the utility theory. Then, the immediate question would be, is there a unique and exclusive correlation between utility value and the equational theory of justice?

Only slight reflection is required to bring clearly to mind what we mean by "the equational theory of justice." When we go about determining justice it is habitual to think of it in terms of equating one thing with another. What things? Direct human relationships, it seems to me. It is the matter of utility and disutility. If you cause pain or unhappiness by your deliberate behavior, then justice involves imposing some form of disutility. For example in the courts, if the accused has already experienced a great deal of disutility, a lighter sentence can be imposed to achieve justice; whereas, if no such experience has occurred, then the court feels it must impose the maximum penalty.

What is justice about? Well, we make people "pay for." We use that expression to mean what neoclassical economic theory of the market process means by sacrifice in some fashion equivalent of what you receive. In fact, the epic significance of neoclassical price theory is that it demonstrates the justice of the market process by showing that utility and disutility are brought into equilibrium. Or, at least, it does as well as any other process can be conceived to do. I think it is completely uniformly applied in all cultures. You do this for me, then I am in some sense or other obligated to do that for you.

You can see how that can have come about in human thought. There is a matter of reciprocation involved in human relationships. The item of doing for each other constitutes civilization, along with other things. It is a necessary correlation, and the matter of equivalence comes in easily. But equivalence of what may be rather difficult. In legal theory, since psychological science has attacked the hedonistic-calculus presentation of it, the situation of what is equilibrated is pretty well bankrupt. But something is always equilibrated. Until and unless and except in those instances in which a problem is simple enough that we can see it clearly, and which must be solved--this applicability thing again--and its determinants are clearly in view.

Like juvenile delinquency. We know pretty much about it. We have the figures and the run of the facts. We have seen correlations between all sorts of variables like income, health, caloric intake, literacy, housing, parents, etc. Some of those things are subject to our deliberate choice, and some communities have tried to change those things with which there is a high correlation in terms of juvenile delinquency. Students are always doing that in term papers: going out and looking at some of these correlations, then finding another community where some items subject to choice are different, and describing that correlation. Where correlations vary, they conclude that one variable causes delinquency and what we ought to do about it.

Now, what are they equilibrating in such operations? What are you equilibrating when you build a slum clearance housing project? You aren't equilibrating anything! And that worries

us no end. When the Housing Act of 1937 was passed, it worried Congressmen and people at large so much that there didn't seem to be anything to equilibrate; it must be unjust. So they got around it by sort of forcing justice into it by making the remainder of the community pay for the project over and beyond what rents were paid by the tenants, on the proposition that the community would be done justly by virtue of two circumstances: 1) that these people wouldn't be so nasty, and thus would be nicer to have in the community, and that would occasion less disutility to the nicer folks, and 2) that the community (shades of Robert Owen, and a shadow of Clarence Darrow) is in part responsible for the condition that these people are in and ought to pay a little bit of it. By virtue of these two circumstances, it became tolerable to clear the slums through the use of other devices than purchasing power of the tenants who lived in them.

Then, if you want to see someone really get excited about the lamentable state of affairs, prove to them--as is quite easily done because it is in fact true--that no one pays anything for those projects. Never have, never can. There is no way to pay for them. No one sacrifices anything, everybody gains. And, of course, that doesn't seem right. Upon presentation of that proof, what else could bother them? Why should it disturb them so that everybody should gain? It would seem to me offhand that that would just tickle everybody pink. Oh, no! That can't be. As one of the largest bankers in America (now deceased) said to me upon presentation of the evidence to an official body of which he was a member, "By George, that's unnatural! That can't possibly be. Nature will force recompense on the community, and it will do so through the market process. And if you'll have lunch with me tomorrow, I'll show you. I can't find it now, but between now and then I'll find it."

We had lunch the next day and he hadn't found it. He said, "I know that the market process will find you out, that this project you want to build is going to cost somebody in the community as much as you're going to pay for it, and you're darn sure going to pay all its worth and they're going to sacrifice that much. I said, "fine. You just find one man who has less because this project is built than he would have had without it, and I'll say that that is his atonement for my sin." He worked on that for about three months, and got to where he couldn't sleep. And we had lunch together every day expecting him to disclose the discovery of how the market process would bring about justice in construction of this project. He never could find it, and I think he died a very unhappy man realizing that finally nobody pays for it.

Was that unjust? Of course it wasn't. Everybody sees that, but there is still something wrong with it. We set up our wage theory, do we not, on the basis that the marginal disutility of working equals the marginal productivity produced by labor. That makes us feel pretty good; justice is done. Man gets what he is worth. As Stephen Leacock said to Adam Smith in The Elements of Economics (if you haven't read that you must of course do so):

Adam, Adam, Adam Smith,
Listen what I charge you with.
The worker's worth just what he got,
That's what you said, was it not,
Adam Smith?

But what about a man or woman doing something he likes to do? Doing something he would do anyhow? Then is it unjust to pay him? Don't we all envy those persons who love to do what they are doing, who would do it for nothing? And the rest of the community--note many of the Quaker Colleges have--the rest of the community have always thought they were rather queer. They are a little bit "tetched in the head" in some sense of other, because they don't pay any attention to how much work you do. Some instructors are making ten times as much as full professors, and everybody knows that a full professor suffers much greater disutility teaching his

class than an instructor. An instructor's soul had not reached the point of development and his feelings are not so finely adjusted to experience sufficient disutility. We say he isn't worth much. They pay him whatever he needs, and if he has spending money, they won't pay him anything. And these guys go on working for nothing. We think that is peculiar. Of course we know better. It both pleases and displeases us to see injustice done in that sense.

And so you will find, in all demonstrations of justice of any institutions in any culture, a loophole. And in economic theory it takes all sorts of forms. In the last reformulation of neoclassical theory it takes the form of the consumer surplus. Here is a very fortunate circumstance in which justice is done at the same time you get injustice done through the realization of greater utility than disutility which is occasioned by purchasing consumer goods. Nevertheless, things exchange at their true value, the utility and disutility are brought into equality. And of course that is no less true of the Marxian theory, in which you get a surplus at the same time justice is done in that those who experience the terrible pain of direct participation in the economy are receiving the rewards of that pain. We have other ways of talking about those things which are equilibrated, but I would suggest that all of them are systems of valuation of the two basic things which are in fact conceived to be brought into equilibrium in the attainment of justice: utility and disutility, however conceived. Such things as labor theory of valuation, price theory of valuation, or anything else.

Note that in all cases there is a concept causally anterior to these theories. That concept is one of human nature and one of nature itself which sets into motion, or at least is composed of, forces which result in equality. And that is why nature is presumed to be "just." Everything that goes up, we say, is bound to come down. And that even works itself down to business cycle theory. Nature is that way. You'll pay for it, we say. Human observation has disclosed that sometimes that is not the case. So we catch them after they are dead and even up the account. Some systems do that in a very careful fashion so that the books are balanced before the attainment of justice. In some instances the attainment of nothingness is the attainment of justice at complete equilibrium.

Now, if you are approaching life from the direction of the Stoics, you would expect the final attainment of justice to take that form. If you are approaching it from the direction of the Epicureans, you would expect it to take some other form. Yes, a balancing of the books, but after that, "Oh boy!" Both rely on the same concept of justice as equilibration. Since these things are exactly opposite and are brought into equivalence in terms of human impact, there is no directional resultant when justice is attained. And without the creation of additional aberrations, especially if you are already dead, then you remain perpetually in equilibrium and no more injustice occurs.

Now, we balance the books as best we can before we kick the bucket. We do it through institutions, and we try pretty hard at it, even though it causes us no end of mistakes and trouble. We almost fight for the right not to apply any other concept of justice than that one. But we do apply another one if a problem is important enough and its determinants are clearly in view.

How would you solve the problems of slum clearance or juvenile delinquency through an application of the equational theory of justice? Well, one possibility is applying the neoclassical theory of price. You could stop interfering and let the market process determine it. We did that until a public health officer in New York pointed out that there was some correlation between health and slums, between the cost of city administration and slums, between fire losses and slums, between the level of taxation and slums.

Some people started thinking seriously about the problem. Now, if the people who live in slums are mean, and you can't control how mean they are but you have some control over where and how they live, what are you going to do? First make them good, then they won't live

in slums and there won't be any slums. We worked at that for a long time. There were several societies organized directly looking toward the elimination of such living conditions. And it didn't work; the slums got worse.

So we said, "Okay, we give up on making these people good." We concluded they were naturally mean and ought to live in slums--again, you see, equilibrating contribution and reward. But we still--and I would have you note this carefully in your thinking--could not escape the consequences. When a child in the worst slum of the meanest parents, brattiest brat, gets the measles, your kids get them too. There is no escape from the consequences.

The truth of Ayres's dictum that any community any member of which is in any degree crippled, to that degree cripples the community, cannot be made in terms of the equational theory of justice. That's why we find it so difficult to accept and use instrumental theory as a functioning concept of justice. It does great violence to an almost exclusively uniform theory. What is just about it? Well, the efficient operation of the social process, because every loss of efficiency of the economic process has inescapable incidences. But that may dictate all sorts of conclusions, all sorts of alternatives which would be precluded by, forbidden by, the equational theory ...

Where in the whole of human experience, in so far as we have any evidences, do you find the problematic situation solved by the application of the equational theory of justice? You find many problems solved, and you find people trying to apply the equational theory. But I think you will find that the problem is solved irrespective of that effort at application. A man commits a crime and we send him to jail if he doesn't have any other way of equating his sacrifice with his purse--let's say he isn't rich. But if you steal enough money to have enough to pay for that great sin, then the judge will even shake hands with you, maybe. You hire a lawyer, pay a fine, and the community accepts it as justice. If you don't have enough utility--meaning value, meaning exchange capacity, meaning wealth--to recompense your sins, then you have to go to court and to jail and suffer disutility.

If you had applied the efficiency theory of value to the problem, you might also put the one committing a crime in jail, but for different reasons: to protect the community from someone who can't react correctly to problematic situations. If you get to where he is hitting you on the head, you can't operate the community so you restrain him from hitting. You also must jail the person who has money to pay fines, but continues to run through city streets at high speed, endangering the lives of others. You can fine him from now until doomsday and not solve the problem.

So long as the seeming application of the equational theory of justice appears to solve our problems, we continue to do it. We love our mistakes especially. However, we have always known that the best that can be is the greatest aggregation of value that can be realized. And the miracle, as it were, of the more recent utilitarianism, either in the form of price theory or in its 18th century form of legal theory, is to reconcile the greatest value with the equational theory of justice. You get a surplus--in economic theory in the form of capital accumulation--at the same time that justice is maintained and everything sells at cost. That is to say, at every stage, to every member in the economic process, his return is no more than what he puts into it. You get your just deserts at the same time that the community attains a constant accumulation of more and more, over and above what it uses up in attaining more and more. That is to say, over and above real economic costs. And the miracle--and it would be a miracle because it is simply impossible, it is in fact a paradox--is brought about not by application of the equational theory of justice, but by granting discretion to those who can be justified by that theory. If you applied the equational theory consistently, you would have no theory of capital formation. So you either have to deny the theory or find some exception. And what we have done is find exceptions. As Malthus pointed out, and I agree with him, it seems "unbecoming" to have to explain almost all

of the operations of the economy as exceptions to what has been set forth as the fundamental principles.

lecture nine

I should like for us to look at what seems to be the relationship between the utility theory of value and the mores principle. The purpose of this course, its instrumental function in being centrally concerned with social values, is, I hope, to furnish you with some way of going about analyzing social problems. In doing so, the mores principle is always involved, and recognition of that fact without recognition of the relation between it and its many corollaries, brings about a subconscious use of the utility theory--even by those who are conscious of that theory's difficulties. What results, it seems to me--and especially in the professional literature, is the creation of a bunch of clichés growing out of applications of the mores principle. Those clichés mean many different things to different people, and thus obstruct communication and the attainment of understanding. It is one of those things, sort of a parallel case with justice, we ought to try to get straight.

The first step, after pointing out what the mores principle is, is to look at how it is involved in our thinking about institutional problems. You will note that it is never stated, although spoken of and about, so its meaning may vary. William Graham Sumner's effort at identification of the principle [Folkways, 1907] seems to me to be very fortunate in its central content. But others use it with connotations foreign to and even antithetical to the principle which he demonstrated.

The principle is, it seems to me, that habits of action and thought constitute the established behavior patterns of individuals and, therefore, constitute the structure of institutions. Or, identical in content and approximately in words, habits of thought and action constitute established behavior patterns of individuals and, therefore, constitute the structural members of institutions. Or, institutions are made of patterns of behavior we call habits. Or the correlation of behavior which constitutes institutions is habitual. That's the mores principle. Now you've heard it stated.

As some of you have heard me say many times, the most frequent corollary which supposedly constitutes the actual operating idea with which scholars have worked can be stated in this fashion: "Habit determines institutional structure." There is a very great difference between determine and constitute. The word "determine" indicates causal antecedence and direction and specification, that is to say, "determination," that habits "cause" institutions to come about. That is about the stage at which Thorstein Veblen left it, in so far as he discussed it directly.

Institutions seemed to Veblen to be the development of "incontinent habituation"--a very unfortunate phrase. Now Veblen worked at a very different concept but, never having stated it, kept saying such things, as if institutions were in themselves nothing more than incontinent habituation. As a matter of fact, they usually are to the individual. But a very little reflection will reveal that the determination side of it is not what has been proven in examination of the mores and folkways, but habituation is not even possible in the determination of institutions, the determination of course being a revelation of how they come about.

The causal sequences involved and the determination of a pattern of behavior--an institution--necessarily require initiation, and usually involve an antithesis between this so-called corollary and the mores principle. Initiation requires purposeful behavior, the making of a choice and, thus, the involvement of value theory. The constitution of the mores being habitual--commonly accepted, as we put it--they could not determine the initial action. And if it isn't habitual, it dead certain can't be incontinent. It involves making choices. The initial action requires choice and choice involves reason. Institutions are in fact initiated out of actions which are themselves efforts to solve problems. They are not and cannot be incontinent habituation.

They become accepted only when they become habitual. Otherwise they would not have any prescriptive force, without which we do not even allow a deliberate specification of a pattern to be called an institution. The coercive power of a dictator in any community, enforcing behavior which is not accepted by the community, does not establish behaviors we call institutions. It is only when that specification is imposed successfully, so that persons in fact act that way, that we permit ourselves to call it an institution, when it attains the status of habituation.

Now we shall probably say a great deal more about it, but this habitual business is the essential character of institutions. But it isn't how they are determined, because they are determined by behavior which, in its initial execution, is a matter of choice. Habit by definition is something which you do frequently enough to do it without calculation; you don't have to think about it to do it. And that, of course, constitutes behavior we call institutions.

....

Ayres senses some disrapport, some antithetical relationship between the operating idea--the most prevalent corollary--and the mores principle itself. That's why he never states the principle, because he is operating with its corollary, and that confuses his work. All due respects--and there are many--to Dr. Ayres, whom I consider the maturest scholar alive, but he can be wrong and, in this instance, he is.

STUDENT: *"I know I don't understand what you mean by saying that he is operating with a corollary of the mores principle."*

I put it this way: habits determine institutions. That is the corollary with which most social analysis proceeds, as if it were the mores principle. What has been proven is not that at all. What has been proven is the principle as I stated it--that our institutional behavior is habitual, and its prescriptive power ... is by virtue of that. Even where deliberately coercive power is applied for enforcing a pattern of behavior which is not accepted, we will not call it an institution. It is that prescription through common acceptance ... which puts it in the category of institutions. Now, most of those prescriptions are of course in other forms, frequently in written form, in the law and in ancient--meaning beyond our memory--establishment of those dicta. But determination is a very different matter than constitution, and the character of determination ... couldn't possibly be habituation.

Initiation is involved in determination, and initiation can't be habit because habit involves repetition sufficient in number and frequency to allow behavior without calculation. That's what a habit is. You walk habitually. Always there are new situations which specify variations from the established pattern, and that is why no one has ever been able to stop the roll of progress. You can slow it down by the application of coercive power, but can't stop it because there has never been any way devised to control the whole of human behavior through prescriptive use of force.

All institutions have instrumental functions, but no institution was ever accepted by the whole of society completely. It may be accepted by every individual but only in part. That is why for the individual, institutions are given data. He has, instrumentally speaking, no choice of alternatives which are so far out of the prevailing institutional structure that he contravenes the instrumental operations going on through that structure. No matter how dominantly ceremonial an institutional structure is, you as an individual may create more ceremony by going outside that dominantly ceremonial pattern. Your problem, and the problem to be solved where the institutional behavior pattern does not permit the instrumental function which it is presumed to carry on, is to change the institution. But you can't change an institution by going so far beyond it that you create destruction, because when you stop the working function, you also stop the instrumental function. So you as an individual cannot neglect proper behavior in the ceremonial sense if society is to survive. The leeway available to you is specified by observable facts, and

they differ for each continuum under consideration, for each problematic situation in that continuum.

You can't, for example, ignore the opinions of your neighbors. No matter how ill-chosen those opinions are, you cannot violate them in the sense of going beyond what I shall later identify as minimal dislocation and survive. And society is correct in forbidding you that alternative, because to take that alternative destroys the society instrumentally--which is *[the bit of truth]* in the arch-conservative position. He is about 1/16 correct, but he has some sense of something the revolutionary doesn't understand. The revolutionary is about 1/4 correct, which is more than the arch-conservative. But the part about which he is wrong is very important. And failure to recognize it is why all revolutions always have and always will fail.

[Conservatives also always fail and always must. They fail more readily than revolutionists because they operate with fewer facts applicable to real problems than do revolutionists]. They are trying to apply something that isn't applicable. In the American Revolution, there were great men involved, and by chance they were thrown into policy enunciation. Tom Paine, Ben Franklin were saying, "All men are created equal, and we are going to set up institutions that will work that way." So they set up the Articles of Confederation, which simply said nobody is going to tell anybody what to do any time about anything under any conditions. It wasn't that bad, of course, but they were pretty nearly anarchists: "That governs best which governs least." That's what Jefferson said, and I don't know how much better an anarchist could state his position. They won the battle with the help of the French and good weather and a lot of other things.

STUDENT: *[Isn't compromise necessary since revolutionaries and conservatives each possess an element of the truth--the position taken by Thomas Vernon Smith?]*

That is his position, and it is dead wrong. It grows out of the failure to comprehend clearly the distinction between the mores principle and its corollaries by Smith, Commons, and many other scholars. His suggested compromise between revolutionary and conservative positions comes out of the failure to comprehend a criterion of judgment which permits you to judge. Since you can't judge, all you can do is add it up and divide it by a number. That's Commons's theory of agreed compromise.

Without a criterion of judgment, what else can you do? If you have no way to calculate the range, what do you do? You find ten guys brave enough to stick their heads out and make a guess, then add them all up and divide, and you have got as far as you can get. No. The failure of two positions doesn't dictate a compromise between them.

The leaders of the American Revolution did sometimes compromise in the sense of Smith and Commons, but it was not a reconciliation of their positions. It was a hit-and-miss effort, and wonderfully successful, in part. But after the Articles of Confederation, problems arose all over the place because they tried to apply a theory that was inapplicable and created rather than solved problems.

What is generally called compromise means a little give and a little take; part of what you want I accept, and part of what I want you accept. The surrender of your dignity upon the agreement that your opponent will also become a little undignified. An abandonment of what you think to be right if he will likewise sin. That never solved any problem anytime anywhere. It begs the question of which thing you abandon, and that is the determination of the answer. Not how much but what, and you can't even see "what" in those terms. That is evading the question. The whole idea of compromise is misleading. You get the wrong answers if you try it.

lecture ten

STUDENT: *“You stated that the most obtrusive fact in the economic process is that of rational calculation between alternative choices within a problematic situation. Yet, at the same time, I gain the impression that you are saying that there is only one choice possible in resolving a problematic situation.”*

Then I haven't made myself very clear. I can see, though, how you could get that notion. The answer, I think, is pretty clear and simple.

What I have been saying is not that there is only one alternative, but there is only one correct theory. The function of theory is to lead you to available alternatives, and your effort is to make the best choice, and that is how value theory enters. Now, a theory which is not applicable does not lead you to the available choices. The choices may be innumerable; theory is singular. Whatever theory you try to apply determines in large measure the data you gather. That is part of its function. And the data you gather determine in a discernible way what alternatives are brought into view among which you are to choose. The whole idea of eclecticism is a myth.

STUDENT: *“I would like you to spell out what you actually mean by “efforts to apply” when you say, “efforts to apply inapplicable theory.”*

You activate yourself in trying to apply the theory to the problem in this wise: You gather the pertinent data in accordance with the theory. Now, if the data you gather are not determinate of the problem, then your concept of application has to be changed or it isn't being applied. It seems obviously true that what we mean by wrong theory is theory which does not lead you to the alternatives upon which resolution of the problematic situation may be obtained.

The literature makes the choice of correct--that is applicable--theory appear to be complex. I think it is simple. Any number of data may be applicable, but what we mean by applicable theory is theory which does bring into intellectual availability alternatives which in fact resolve the problematic situation. If they don't, that is what we mean by erroneous theory--theory which does not permit you to get at the right evidences or arrange them for analysis. The arrangement is the structure of the theory.

[Veblen never stated the criterion of judgment, but Ayres did.] In Ayres's work you go directly from the theory of value to the problem. And the theory of value doesn't tell you how to arrange the data. It tells you what kinds of data you have when you get them. It doesn't tell you whether you should collect this particular datum about this particular problem, as both Veblen and Ayres thought.

Veblen sets up his distinction which, it seems to me, ought to have permitted him to identify the theory of value, but it didn't. What he did was look through all these evidences, and then when he hit particular problems, he just applied the instrumental theory of value over and over and over again and came out with amazingly accurate judgments. But you don't know how he got there. You can't discover how by just reading him. Read the Fortune Magazine issue on Veblen [36(1947):133ff]. It is worth getting just for the picture of the old boy. He looks like he visited a haberdashery once in a while--he looks pretty good--but of course he never did. He would have been astounded if anyone intimated that they thought little enough of him to think that he might. But Fortune claimed that Veblen “was the last man who knew everything.” Now what astounds people about Veblen is that impression. He didn't know everything, but as a figure of speech I think it is well taken to characterize his amazing scholarship. But to put him on the terminal position of that axis is a mistake.

What is astounding is that you suddenly come out with some answers, but try to find how Veblen got them. You don't find it; all you get is the distinction applying instrumental value, the first step. Then you get a feeling of awe and reverence about such capacity. The fact is, it seems to me that anybody equipped with the same theory Veblen sort of unconsciously--and

therefore sometimes sloppily--applied could reach his unique judgments. Look at his Imperial Germany or his Nature of Peace. Amazing analysis, just breathtaking. Very heady stuff, along with being a lot of fun.

Veblen was a very funny guy, and I suppose he is spinning in his grave now from my saying that. He was funny in the form of humor you call satire, mostly. He was an expert fun maker, but he seldom laughed. He went to inclusive problems where the application of the theory of probability was high enough that he could, at his stage in the development of the social theory, make fairly confident judgments without having to take the trouble to work through the theory, its structure. He discloses nothing to you of how he arranges the data for analysis, nor which data he gathers, beyond showing that they fall into one or the other of the categories of the Veblenian distinction.

Ayres recognized that problem. He asked "What is the trouble here?" --in 1917 when he was a student at the University of Chicago and it was still under the stimulus of Dewey and Veblen and some pretty rugged scholarship was going on there, in the pioneering sense, in the contribution sense. *[Now, trouble]* is that Veblen doesn't tell you how he makes his judgments. Why doesn't he tell you? What is missing in the "how?" Well, the criterion of judgment is missing. He was applying a criterion of judgment, but didn't know what it was.

It seems to me the same situation exists when you leave Ayres's work. It always astounded me how Ayres could make such accurate judgments about things in the form of institutional problems as they in fact occur. When I originally examined how that came about, I couldn't see how he could do that, the fault being his: he had not revealed to me how he did it. And upon kicking him around about that, I found he didn't know. He just sort of did it. The absence of the how-you-go-about-it-ness between the theory of value and the judgments which he makes when looking at particular problems, as in the case of Veblen, leaves you sort of bewildered. You have a tendency to say, "Gosh, wasn't he a smart critter? Just think! how can he say these things." What you are saying is, "The bloke ought to have finished the theory." And it is not a matter of genius at all; it is a simple matter of understanding.

There are two sources of difficulty in intellectual comprehension. One of them is inclusiveness, requiring the comprehension of a great many variables at the same time. But if you look at any one variable at any one point in time, it simply follows another variable. Don't let the professional scholars bluff you into thinking that some things are just too difficult for you to understand.

STUDENT: *[Why, if technology includes ideational tools which constitute the level of comprehension, does not that technology specify choices between the available alternatives, and thereby specify the structure of the institutions arising from technology?]*

There are two problems involved, and I am afraid you might be getting the two confused. You have the problem of comprehension itself about any problem in the social process. Then you have the problem of which alternatives are in fact available to be selected. Technology, either in your definition or in physical-tools definition, does not specify the alternatives selected. It specifies the choice you would like to see made, that is, your comprehension of the correct choice. But it does not specify the choice selected, because that choice is a function--given the limits set by technological determination--of recognized interdependence and minimal dislocation. Technological determination sets the limits, the other two determine the specifics.

STUDENT *"It seems as though Veblen's students must have taken the correct first step [in using value theory.]"*

They all did. They got the facts, and they could tell the difference between technological and ceremonial *[facts]*. But they couldn't tell which of either to gather. They had a tendency to gather technological facts and ignore the institutional. Of course, Veblen knew better than that because Veblen was applying the *[distinction]* all the way down in some fashion or other. But his students went out and started counting things--a very important function. But when they came to the actual application of the theory to the solution of problems, they didn't know which way to turn. Veblen had not disclosed to them the structure of the how-you-go-about-it beyond his distinction. So what they did exactly reflects the theory they tried to apply. The neoclassicists who approached a mature comprehension of the Veblenian distinction began to count, to categorize, to list, to schedule. They drew supply and demand curves as best they could from historical prices; they showed variations of various things. They graphed things that are the determinants in classical theory.

[The historical school in America and central Europe was also influenced by Veblen.] They talked about the development of particular technologies; they examined the development of the glass industry. This was valuable work, but not for the reason they think. They wrote dissertation after dissertation of excellent description, and then came to the point of asking what the significance of this work was. They were the ones most impressed by Veblen's acceptance of the most prevalent corollary of the mores principle, in which he spoke of institutions as "gradually acquired modes of unconscious habituation." With that corollary, the historical school couldn't ask what should have been, only what had been. Their analyses were not the product of Veblen's contribution, but of the theory they thought applicable, the orthodox theory with which they were equipped.

And the Marxists, how they loved Veblen because they completely misunderstood him--but no more than the classicists. I heard an extremely able Marxist say recently, "All Veblen was saying, Marx said a century before him." Technology, institutions, forces, relations; it's a tempting interpretation, but dead wrong. This student found what Veblen said to be correct and to make sense. Then Marx furnished a theory that got him to applications--an easy imputation, since Veblen didn't explain how to get there. You could think he got there just like Marx did.

The same thing happened to Veblen's students. He made a little sense out of something that no one else had made any sense out of, so his students got all excited, and said, "Let's take off and solve all these problems; we'll do it before sundown." And they take off down that central high road at the beginning point, the Veblenian distinction, without examining what is back of that--the philosophical foundations. All they knew in most cases was Veblen's criticism of available foundations, while his foundations were not sufficiently developed to be articulated. They were developing mostly at the hands of John Dewey.

So Veblen's students took off down a nice, smooth, straight road. Then they came to a fork and didn't know which one to take. They had to do something. Some of them rode back and forth on the straight part of the road, counting blades of grass for the rest of their lives. Some went a little further. They looked around and found some sign posts. The neoclassical sign post said go this way; the Marxian sign post said go another way; the historical sign post a third way.

Reminds me of the story about three men drunk on different drugs--one on alcohol, one on marijuana, and one on opium. They came to a walled city and found the gate closed. How decide what to do for the night? The man drunk on alcohol said, "I'll just kick the blankety-blank door down. The one drunk on opium said, "Oh no. Just lie down and go to sleep, and tomorrow morning when they open the gate, we'll just walk in." (That's the historian) The one drunk on marijuana looked at it carefully and said, "Well you guys do what you want. But me, I'm just going to walk through that keyhole." (That's the Marxians)

The point I wanted to make was that the area of applicability, what the statistician calls the universe, specifies the level of generality of the theory, that is to say, its continuity and foundation. And a theory is, of course, general to its area of applicability. Now, if the universe of its applicability is temporary, it is temporary in that same degree. But what we are getting at here is that universe we call the social process, and it is coterminous with human society. Its generality is not religiously or philosophically inhuman. It is concerned with experience, and that is pretty general. It is very inclusive. It is that with which you are concerned in everyday life.

It seems to me that this blockage--to suppose that the mores principle means that the criterion of judgment between alternatives, the theory of value, is a function of habitual modes of behavior--precludes absolutely the use of institutional theory in the solution of institutional problems. That is what makes Veblen so bewildering to most students. That is why his critics say he isn't going anywhere.

The reason Veblen was in that position, I think, was that he was so clearly aware of the inapplicability of the received doctrines that he dared not state a theory. He constantly gives you the impression that there can't be any such thing as theory, and men like Commons took off from Veblen at that point and said, "If there isn't much theory, let's be practical." Then he sort of tries to develop a theory--which I think is about the state of social theory at the moment.

When you go out to solve a social problem, you come up against the same thing as Commons came up against. You come to the fork in the road and all these sign posts, and you don't know which to take, you don't know which theory to apply. Well, you had better find out where the road ought to go if none of these is right, and build that road. Build a road that will solve the problematic situation. That involves a re-examination and re-extension of the Veblenian distinction. [*As the story of Procrustes demonstrates*], without a theory of value, there is no way to tell whether you should cut off people's legs to make them fit the bed, or adjust the bed to the people. You have to have a criterion of judgment.

Let's put it this way. If institutional problems are not to be considered in terms of institutional theory, then in what terms are they to be considered? It is at this point that it becomes obvious what the relation between the mores principle and the utility theory of value ought to be.

lecture eleven

Last time we were talking about the relationship between the utility theory of value and the mores principle. At the end of the hour, I had pointed out that the relationship which comes into view most clearly is a supposed corollary of the principle rather than the principle itself. We were reduced to asking the question, if social problems--that is to say, institutional problems--are not to be considered in terms of institutional theory, then in what terms are they to be considered? Or, if the most prevalent corollary of the mores principle--that incontinent habituation determines institutions--be correct, then the mores principle would be equivalent to denying the point in considering social theory at all. Behavior would be all shadow play of unconscious and non-patterned institutions, determined by habituation in response to a continuously varying environment without responsibility or possibility of explaining the determination of those patterns. I pointed out additionally that what had been proven in the mores principle is a matter of constitution, not of determination, of the pattern.

The word "principle" is used to mean a great many things. Sometimes it is used to mean an important fact. To include all of the accepted uses of the word, I most frequently refer to it as the expression of a continuing factor which may be operational or descriptive, etc. The mores principle is not the operational kind. It is a figment of what constitutes institutions--their attribute of being habitual. And that is all it seems to me that has been proven.

It was certainly all that was in Sumner's and Frazer's works, which make it clear that the mores and folkways are constituted by habits, but not so determined. When the high priest is defending the golden bough to maintain his position of prestige and power as the guardian, his analysis of how that began--the development of the galaxy of correlated behavior patterns that accrued to it and around it--were matters of discretion, purposeful behavior. Matters in the initial stages including a big advertising effort to spread the myth regarding one particular guy who told the community he had something in the form of water and a tree and the golden bough that wasn't there. But if he could convince the community that it was there, then he could differentiate his product by putting on a different brand name. Subsequent generations came to take that development as a matter of course, as part of accepted behavior. Many candidates were found for the office of high priest, even though the severity of its occupancy always resulted in a fatality in a short time. He couldn't sleep, you see, because the chair was occupied by cutting someone else's throat. He destroyed the high priest in mortal combat, and thereby became high priest. But then he couldn't sleep because others were ambitious to occupy that position. This was not, in its initial stages, I submit, "incontinent habituation." The reason I labor that point somewhat is that it seems to me to be the point of takeoff in trying to get beyond the Veblenian or Ayresian stage of theory, particularly in reference to the theory of institutions, for which we look at the theory of value.

Now a sub-point. In the literature on this point, the notion for some reason emanates out that habituation as such is pretty weak stuff in value terms. Many students of Ayres get that notion, saying, "Oh, that's just a habit." "People act that way because they don't know any better." which is not the same as but is inclusive of "that's just a habit." As long as a habit is instrumentally successful, you don't need to know any better. No problem arises, nothing occurs which requires the choice among alternatives. This view can easily be generalized into the notion that institutions are themselves nonsense. Since they are habitual, there is no instrumental validification of institutions. And that is easily reenforced by a cursory reading of the evidences of institutions uncovered by the authors I have just mentioned, especially Sumner.

These are not evidences that habitual behavior is invalid or is not subject to validification. Far from it. What does follow is that habitual behavior does not and cannot serve as a basis for validification. The mores principle, as it has been most frequently applied, comes down to the conclusion that there is no way of judging institutional structures. You can't say one structure is better than another because both of them are matters of incontinent habituation; one cannot be more correct than the other. You will find, I'm sorry to say, many of us speaking as if one culture--other than our own, of course--is as good as another, especially if they are far removed or primitive. They're just different, we say. And I suggest also that we already and long have known better than that.

If the utility theory of value is viewed as fundamentally irrational, it is a matter of what pleases and doesn't please, it is a function of the culture which constitutes your behavior pattern habitually; and if that culture is a matter of unconscious habituation admitting of no positive validification, then there is no way to judge one pattern of correlated human behavior compared to another in terms of validity. No need would arise; the only excuse for studying it would then come to rest on an unconsciously determined "dance of the atoms," as it were, if you by chance found it interesting.

Veblen called it "idle curiosity," meaning something more than non-active or the absence of personal advantage; meaning something other than that peculiar motivation characteristic of some particular cultural pattern--inclusive of capitalism and its pecuniary standard. He was trying to talk about a continuing factor under the caption "idle curiosity," a part of human nature. And so was Ayres, bless him, revealing the fruition of the more basic mistake of assuming the

most prevalent corollary of the mores principle, which requires the application of the utility theory of value, which theory was unmistakably destroyed by both those scholars.

I point that out not just in an effort to criticize great scholars, but to emphasize (heaven help me for using that word) how difficult it is to avoid being involved in the application of a recognized theoretical error. It is one thing to say that you recognize the invalidity of the utility theory of value, and it is quite another thing to not make use of it in those areas of operations in which you have used it ever since you learned to use ideas. It is just like walking or any other established habit pattern, especially where it works successfully. And the difficulty is further heightened by being a member of a culture--which includes all cultures of any size up to date--which itself is constituted, in so far as it has pattern, by the application of that particular theory. The effort is made constantly to apply the utility theory of value consciously and unconsciously, primarily through the theory of justice. And it appears in the most scholarly work as well as the daily newspapers. It thereby constitutes this difficulty which must be overcome, or we cannot proceed towards an applicable theory of the social process.

STUDENT: *"If we identify a theory of value other than utility, won't it be impossible to incorporate the utility theory of value into the theory yet to be identified?"*

No. ... the utility theory of value can be stated as a theory of something (three different somethings) which may or may not be true, like any other theory, but which can be approached directly as any other problem in the study of any other myth to be approached. When Frazer went out to look at the origin and development of this myth about the golden bough, his use of the scientific method as an anthropologist did not disallow his recognition of the effect and character of the theory of the golden bough.

There is such a thing as utility in several different senses, any one of which can identify an important fact. It is unquestionably true, for example, that some things give more pleasure than other things. It is also true that some things hurt, give pain. It is also true that people make judgments relative to these two things, their probability, desirability, etc. Imagine a young boy deciding whether or not to jump off of a barn roof. He has an audience, which includes people whose good opinion he holds dear; perhaps he has something which will add display, say a large parasol which looks something like a parachute. There he is, poised on the edge. They're looking at him; he can't back out without some unusually effective escape device. The pressure is high, it becomes a matter of honor. He makes a nice calculation. He could become aware of the technological determinants, and decide he has really made a mistake. But still it might work. What happens, as I can well tell you, is he jumps off and breaks his neck and usually lives through it. He makes a calculation of pleasure and pain. Now, there is no heroism involved at all. It's connected with accurate judgments of fact, which have nothing to do with outside functions. We make calculations like that all the time.

There is no denying the very great importance of the hedonistic calculus, a thing which I and others attack constantly. But I will have you note that it cannot be attacked successfully as if it doesn't exist. It does exist. It can be attacked only as a theory of human motivation.

The theory, then, if it were approached scientifically, that is to say, rationally, involves the determination of how things come to be desirable or undesirable. And if you do it that way, then the question of motivation is beside the point, simply a matter of taxonomy without further recourse as such, a matter the explanation of which is causally exterior to it. Because then you have merely set up some captions and said by definition that whatever falls under this one is positive motivation and whatever falls under that one is negative. Then you still have the whole problem you had originally of explaining human behavior--choices among alternatives. Whether it is pleasure and pain or otherwise, you still have the theory of value to explain.

Now note, that if the utility theory is viewed as fundamentally irrational, then indeed all patterns of human relationships are relative to the total cultural pattern of which they are a part. Then, indeed, there is no way to cross between cultures, and then there is no way to cross over between alternative behavior patterns in a particular culture. It all depends on which one is successfully established, which is a matter of advertising, not a matter of scientific understanding; if you can get it adopted, you've got it made.

Then the question arises, are there no more continuing factors than that in the question of choosing among alternatives? Are there in fact continuous factors relating to the matter of the criterion itself? If this hedonistic business holds, then the corollary one of the mores principles does in fact hold. And if it does in fact hold, then it doesn't make any difference. Science becomes nonsense in its application to that problem. Instead of science, what we should do is advertise. Decide what we want, and then convince people.

Now, where it comes to equally convincing situations without understanding of either, then it "ultimately" results in fascism--conviction through force. Advertising, when it abandons explanation I suggest, is in fact an application of that principle. An explanation becomes useless.

But there is a difference between the continuity of the forces of explanation, between rational choice based on evidences, and establishing patterns of correlated behavior through coercive direction of those patterns.

lecture twelve

We have been talking about the relationship between value theory and social analysis, and I have tried to get at it so far through an examination of how utility theory has been and is involved in social analysis and social behavior. We have got at that through several different items, most of which have involved the mores principle and how the utility theory is related to some corollaries which are attributed to the mores principle.

STUDENT: *"Veblen in The Place of Science makes the statement than man's nature is teleological ... It seems to me that, if he really believed that statement, it is sort of predestination toward a preconceived end. And certainly that is not in conformity with the Veblenian distinction."*

Yes, but not necessarily. To say that man is driven in some sense toward behavior patterns in conformity with his nature may be teleological and it may not be. The teleology would require the preconception aspect of it, and that requires something outside of man. It requires the "guiding hand." To grant human nature doesn't mean that you grant a predetermined end in the sense that you grant a particular pattern of behavior as an end toward which the patterns of behavior are trending. The fact is, it seems to me, quite the contrary. If that were true, then the theory of value would specify the end.

The whole effort here is to identify the theory of value which, it seems, turns out to be such in fact as not to drive toward a particular end in the sense of a particular pattern of behavior, or even a very generally identified pattern of behavior within which there may be variations. We are thereby required to look at human nature to see if it does in fact correlate, dictate, in the sense of result in, a drive toward a particular pattern of behavior.

STUDENT: *"Maybe my interpretation of the word "teleology" is wrong, because I thought it connoted some innate characteristic, internal characteristic, that coerced arrival at some preconceived end."*

It does that, but that is also true of any concept of human nature. The teleological concept requires that that end be a specific condition, thus not by virtue of having innate

characteristics. You see, it is inevitably and necessarily true that anything separately identifiable has factors continuous with that thing, including human beings. Otherwise, you could not separately identify human beings. And if those factors are continuous, they continue to have their effect.

Now the whole point of the effort in this course is to see that it is not a particular pattern of behavior at any level of generalization. And when I say behavior, I mean social behavior. I don't mean the beating of your heart, which is a behavior pattern toward which, if you will, your very structure ... correlates at your commencement and your cessation. We act that way. That's the way we are. That is our nature, and it is continuous with the universe of application, that is to say, with human beings. That is a particular behavior pattern, but it isn't social behavior.

What we are here concerned with is institutions: correlated human behavior, relations between people. And that is a very different thing. Though there are continuous factors in social behavior, they are not such as to specify a given behavior pattern, nor are they such as to require that kind of end.

The teleology of it is not the acceptance of nature, as it were. It is not the acceptance of continuing factors, but the character of those factors. As Veblen explains in his attack on the received doctrine, the teleology, though in fact denied, is clearly there by virtue of the direction toward a particular pattern of behavior on the occasion of the removal of obstructions which deviated it from that direction. Veblen's proof of the teleology, even though everyone since 1776 denied the teleological aspect of what Veblen says, is still a part of their theory. And I think Veblen is right about it--going this way, toward that order which establishes itself as if of its own accord. The natural order, in this case that particular pattern of institutions we usually speak of as *laissez faire* capitalism. Then somebody does something, like impose a tariff or duty or restrictions or specifications in relation to price, or service, or character of the product, and it goes off in another direction, that is to say, welfare capitalism or something. Then it is going this way, and at this point you remove whatever it is that made it go down.

Now in nature, Veblen says, things go on until something changes. Well, the demonstration of the theory is not only if you take it away, it doesn't keep going, it goes back up and continues on its way. Something turns it back, something that is outside the process. That, says Veblen, requires an assumption which is teleological in character. There is an end toward which the continuing factors, both inside and outside of human nature, push the pattern of correlated human behavior. And it is that which constitutes the teleology, not the fact of continuing factors but that kind of continuing factors.

Now note that Veblen says that requires a consciousness of that end. Carl Becker tries to make this point--and I argue with him too, as you know--that though the spokesmen of the Age of Reason, including Adam Smith, John Locke and even Francis Bacon, destroyed the "Heavenly City" of St. Augustine by denying God's will, they rebuilt the city with *[natural]* materials, the classical theory. It isn't really nature that they are talking about, it is still God; someone who decides and pushes it. Nature doesn't change its mind, but there is mind involved here, say Veblen and Becker.

Where I argue with them is on the other point, that is, how man is involved in this. There is no possible conception of the utility theory of value in application to the problem which does not always involve an end in view. That is why the "isms." That is what an "ism" is: a demonstration of how you get to that end. Now that may take any form. And Veblen was trying to get at a demonstration ... of how discretion is involved here and how the theory of logic is involved. He doesn't attack the problem, but he did see that no matter what you have in view requires a teleological assumption of direction by the "guiding hand." There is something which guides the hand. It isn't altogether clear in Hume. It would be a little difficult to make the case against Hume on that score because he took the classical anarchist's position in a fashion which

sort of disallows the whole works. He argues with them too, like Veblen does, on the same score, but he comes out in the same place. But he denies it all the time, so when you get there, you just say, well, I just got here, it was no part of my own intention. Sort of like the drunk who ends up in jail. And he is sort of offended. He intended no wrong! Yes he did; he obstructs the sufficient participation of which he is capable.

The relationship we are seeking is the functions of problem solving which arise out of the human capacity to make choices, which necessarily involves the application of some theory of value. And that involves the demonstration of the capacity to make choices evidentially--not only the capacity, but the exercise of it, in fact, as a continuing factor in human behavior. That is what I was trying to get at last time when I was sort of kicking Ayres and Veblen around in terms of their blockage in respect to determination of habitual behavior.

Habitual behavior may be good or bad. The only thing we know about its being habitual is that it has been done a great many times. It has been repeated sufficiently often to become accepted without critical view, without the exercise of reason.

Now, we have gotten at value theory through several different ways: the mores principle, the theory of justice, the prominent position of utility theory, the distinction between application and efforts at application. All have this in common: they already involve a realization of the value problem as continuously and necessarily consonant with every item at every point or part of the social process. The problem is the relationship between social analysis and value theory. The relationship is this:

The successful continuation of human relations in correlation with each other, that is to say, the continuation of the social process, necessarily involves solving problems, resolving situations which infringe upon the continuity of that process.

We are not concerned with non-human, after-human, or before-human processes. We are concerned with social analysis which, to be significant, must necessarily be applicable to the resolution of those situations which do observably or comprehensibly infringe upon the continuation of that process.

Everyone agrees with what I just said in terms of their behavior, and most people agree verbally. Some, for amusement or otherwise, just say no, that death is a good thing and life is a bad thing. Then they go right on living, when it is very easy not to. They talk one way and act another, and I think that is dishonest. They say life doesn't mean anything, and then act as if it did. *[If such a person]* is alive very long he is acting as if life were preferable to death, and for that reason he could not make a rational choice of suicide. That choice isn't genuine: you choose not to have choices. There are no social choices beyond life. Choice means alternatives, and alternatives don't exist in death. Alternatives exist in life, and social alternatives exist in social life, and social life ceases at death.

And alternatives means the presence of problems. The problem is how you go about knowing which alternative to take. The answer is value theory. The significance of value in social theory is that it constitutes validification, comprehension of how to go about knowing correct choices. It constitutes how you go about finding out what is right and what is wrong socially, without which you can make no effective choices in social behavior. Deny it as you will, it is still true that wherever a problem exists--and that is a constant condition--that exercise necessarily goes forward. It goes forward as an observable fact. If it goes forward continuously, and the effort is to apply an erroneous theory, is not that effort also continuous with human experience?

Some students, I think, get the feeling that I am being inconsistent when I say--as I always do--that ever since we have had any knowledge of human behavior, they have been trying to apply the utility theory of value, and at the same time I identify continuity with truth, and thus with validity.

Continuity as we use it here does not mean lasting a long time. It means uninterrupted and necessary involvement in the continuum of which the question is asked. Then about human behavior, might we not say that efforts to apply the utility theory of value are continuous with human history, and that what I propose as the criterion of judgment seems not to have been spoken of very much until recently, and then only by a few--isn't that pretty temporary?

Of course that is pretty temporary, but let us get our two problems straight. One, the actual operation of a theory of value in human experience, the actual criterion of judgment in social experience. And two, those theories we say we are applying and those which we said we did apply. There is often a great difference between the way we behave and the way we talk, and especially is that true of the theory of value. And I think I am prepared to demonstrate that what we have done in its actual application has been completely contrary to, in the sense of not included in but rather exclusive of, the utility theory.

Of course, we use the hedonistic calculus in making judgments where it is applicable. And you can define the hedonistic calculus components in such a manner as to simply state the problem and forbid its examination. You can make it a sort of truism. But if you try to explain how we in fact behave in making judgments, and how that behavior impinges upon the social process in the form of resolving those situations which impinge upon it frictionally, the solely significant operating, effective criterion of judgment is quite something else. Of course you know we call it several things. I prefer to call it the "instrumental theory of value. Ayres calls it the "technological theory of value," which is a sloppy way to put it, it seems to me. It ought to be clear that not only is the theory of value continually involved in social analysis, but also that the theory of value which is in fact applied, is what is necessary to understanding as well as to understanding significance and effects of efforts to apply theories of value which in fact cannot be applied.

lecture thirteen

STUDENT: *"Is the animistic concept necessarily a part of the teleology conception?"*

Yes. Without *[animism]* there could be no teleology in the sense that Veblen tried to *[identify it in]* the classical theory.

Last time we were talking about the involvement of value theory in social analysis, and we bound it up with problem solving, suggesting that value theory is used wherever the function is carried on which involves it. To say that value isn't involved in problem solving but is only sort of an academic exercise would put us in the position of saying that a process is going on but the determinants of that process are not there. To repeat: to take the position that the process of selecting among alternatives--a process which everyone admits necessarily goes on constantly-- and at the same time to take the position that value theory need not enter in as a determinant of human behavior. You put yourself in the position of an impossible paradox of trying to explain a process while denying the possibility or need to identify its determinants. Even restricting analysis to description, you would thereby be taking the position that you can describe something, part of the components of which you will not recognize or tolerate.

The reason is that, if there is not in fact the relationship which we set up last time--the relationship between human predilections, preferences, tastes and the social process--then science has no place in human affairs. Rational analysis has no basis for consideration, and truth and falsehood become inseparable and indistinguishable, depending upon your predilections about predilections.

You can recognize predilections without taking the position that predilections are determined by your predilections about predilections. It is sort of the same thing as talking about non-evidentially determined areas of explanation. You are carrying on a double play which is necessary in the social sciences. If you recognize the place of reason in human behavior, you examine the determination of human decisions by making decisions about decisions. You make judgments about judgments, and some of those judgments about which you are making judgments are non-evidentially determined. This situation generates a tendency or feeling that you can't have a rational explanation of value. You can't have a non-magical explanation of magic.

If that be true, of course, then it is necessarily the case that science in the analysis of human behavior is largely irrelevant, because a large part of human behavior is irrational, in the sense that the conceptual operations of which the actual behavior other than those operations are physical presentations, are themselves irrational. The concepts can be irrational, and so the things which eventuate from them in the form of other behavior than the concept would be irrational. The imputation follows that you can't examine irrational behavior rationally.

Of course you can. How do you think the magician makes his living? Exactly that way. He pulls a rabbit out of the hat, and you know rabbits don't come out of hats. And the magician, knowing that the community knows that, makes it seem like rabbits come out of hats, and we think that's sort of funny. It is wonderful entertainment because it is a series of incongruities which you know beforehand have been carefully plotted. So you know he is fooling you, and the game is to find out how he is doing it. He says he isn't kidding you, knowing all the time that you know that he is kidding you, and that makes it funny.

But it isn't fully when you think he is really not kidding you, when men kill each other because they think that way. In a sense, all human mistakes are of that character: war, or two men fighting. There is nothing sillier than two men fighting. There is an old saying that two grown men can't fight, unless one or both of them is nuts or something.

There is no way to escape the plain practical fact that value theory plays a part in the ongoing of the social process. The part that it plays is that it serves as a criterion of judgment in choosing among alternatives, which operation occurs and can only occur in the resolution of problematic situations. That is a constant in human experience, not only individually, but to the community at large. It is not a question of theory but of fact.

Then the question arises, if that be true, what is this fact? What is that which serves in fact as the criterion of judgment in choosing between good and bad socially? Because it is immediately apparent that whatever that criterion is will determine the character of the choices made. You take any example of two persons trying to use different criteria in reference to the same set of facts. They get different answers. They can get the same answer to different sets of facts in trying to apply different criteria, but they can't get the same answer to the same set of facts applying different criteria.

Earlier, I used the example of two persons considering the matter of slum clearance, both closely acquainted with the facts, equipped with the knowledge in relation to the same items. The one using the utility theory of value with the only available theory of valuation--the price theory of valuation--comes out with the major corollary of the mores principle that there isn't anything you can do about it because you can't make a judgment until after the action the propriety of which is in question. The whole difficulty with that theory is that it makes planning impossible. If there is no way to make a judgment about an action except after observing that action, then anarchy is the only tenable position. That is to say, it makes laissez faire the answer to all problems. That is to say, it denies the genuineness of the problem. Thus, you can't have problems, "really." But if you can't have problems "really,"--and this begins to sound

very much like nonsense--the answer to the problems would be not to consider the problems. And that, I suggest, is nonsense.

To consider what to do about something about which you know that you can do nothing is nonsense, isn't it? No one ever really took that position, I guess. But they try to take it. And since no one has ever taken it, we might ask ourselves, why not? Is not the theory there, the whole apparatus? Is not the concept well pronounced? Are not the more restricted areas of application of the general theory available in specific presentation for application to a particular problem? Of course it is. It is the whole content of modern economics in the orthodox development. Then, if it is there, why don't they take a consistent position on that score? It is the non-applicability of erroneous theory. As Malthus pointed out in regard to Ricardo's work in 1821, it "ill becomes" economists to set up a theory to explain human behavior, and then be required by the run of the facts to explain most human behavior as exceptions to that explanation.

When you get more exceptions than you get conformities, then you ought to change the rules. Especially if you get more exceptions all of which have genericity sufficiently identifiable to permit the establishment of another rule or, as Malthus would say, a law. Well, I suggest that that is the situation now in relation to utility theory. It doesn't make the run of the facts. You have to have exceptions, and open some other door than the front door--value theory--or you just can't get out of there. You couldn't make a choice in terms of estimation of preferences, meaning in terms of estimation of comparative propriety. You couldn't do anything. You are in fact close to the nihilist. And I suggest that that is the source of the recent flurry of nihilism, which has been responded to with all sorts of positivisms all over the world, the most highly advertised one being the recent western European rise of Communism.

STUDENT: *"You said that ceremony doesn't solve problematic situations. Hasn't the ceremony of changing business symbols from monopoly to private enterprise made it more palatable? Hasn't that demonstrated the problem solving ability of myth?"*

Yes to your first question, no to your second. Myth inhibits problem solving. The fact that potassium cyanide is coated with sugar doesn't keep it from killing. And the fact that you die with a smile on your face, as if you love it, doesn't keep you from being dead. Acceptability does not keep it from being an error. I suspect that most of humanity which has been destroyed by humanity is in that category. It doesn't solve any problems, and that is what is so horrible about sugar-coating things where you aren't concerned with the coating but with the things.

STUDENT: *"Doesn't that make it easier for those in control to maintain their control--help them to solve their problem?"*

Yes. But it is their personal problem. The social problem is not how to maintain their control; it is mostly how not to maintain their control. The social problem usually is how to get the sugar off of the darned thing. If you get the thing sugared enough, you can maintain control as long as the coating is there. But you can't get away from the effects of the thing that's coated. You can make people believe that it's good to smoke marijuana, but you can't get away from the fact that smoking marijuana makes them sick. The technological determination of the problem is still there. Even though you think that the highest state of human accomplishment is to be drunk on marijuana; even though you think that the highest attainment of man is illth; even though you punch needles through your arms to prove it, and grin like an opossum to show the aesthetic attainment of which you are capable (what you are really showing is a skill at auto-hypnosis), it still doesn't take away the effects of the operation. The effects are there irrespective of what you caption it or like or don't like.

STUDENT: *“Several times you have criticized the idea of a conflict between institutional and individual interests, and you claim that there is actually an equality of interests, that they aren’t in conflict. Explain that equality.”*

Suffice to say at the moment that it is clear with the slightest observation that the economy is a collaborative activity. Collaborative in that it is carried on through correlation of human efforts, and that it is impossible in the technological sense that the interests of one person be different than the interests of another person in that sense. The only way you can get a difference in their interests is in some other sense, namely invidious.

Now the same thing is true in relations between the individual and the community economically. Quite clearly, the individual’s interests economically are identical with the community’s interest. If the individual’s interest be conceived as instrumentally effective participation in the social process--and I think it can be conceived correctly in no other way--then it necessarily follows that the individual’s interests and the community’s interests are the same.

Ceremonially, yes--the individual’s interests are always divergent from the community’s interests. And if invidious differences are born to man, then it is true that the individual’s and community’s interests diverge. But if that not be true, the contrary is the case: it is “better” for all individuals to participate as effectively (instrumentally) as they can. And that is exactly the interest of the community.

Returning to the effects of an idea, a predilection non-evidentially determined, determined on the basis of the attainment or maintenance of power, never solved any genuine social problem. It creates social problems. If you say the problem is solved, you are really saying that you have power.

Take the problem of slum clearance. We tried philanthropy when we first went at it, and the slums continued to grow. We tried limited dividend corporations--one of the most beautiful slum clearance projects of America was built that way in New York City--and the slums continued to grow, with all of the incidences of slum existence still there. We tried Jehovah’s Witnesses; we tried education; we tried everything we could think of, and they still continued to grow.

When the fight arose in New Orleans, one of the worst slum cities in the world for about four generations, an argument something like this ensued: First, “Why, gosh. These people love the slums. People come from all over the world to wallow in them and get as sinful as they can, so it must be fun.” The idea is very common that if it is sinful enough it must be fun--a silly but prevalent notion. You find it applied to the law: if it’s illegal, it sort of must be fun.

First, slum dwellers like it. Second, the proof of it is that they are willing to pay for it, and if you took them out of their slum, you would do an injustice to them--destroying their homes in which they have bound up their lives; the old rickety house with germs five generations back, rats running all over. They love them; they would be uncomfortable in standard houses. And that’s all true.

Another kind of argument: society can’t afford it. Where is the money coming from? Another kind: if you plan, you are assuming some other theory of value than the utility theory of value, and if you are, you are a dictator. That’s what is meant by the often repeated dictum that if you scratch the skin of a planner, you will find a dictator. And they are correct, in the sense that planning anything is contrary to the utility theory of judgment.

A plan is explicit recognition of a problem in relation to which you have some way of judging alternatives. Your plan is a configuration of judgments of alternatives, which means that you can anticipate something before you act. That is to say, there is applicable theory in human affairs. That is to say that the answer that utility theory drives you to is untrue--that you can’t observe until after the act, so you can’t plan.

It is pretty easy to see that the utility theory of value does not serve the function it purports to serve: It doesn't solve problems. It doesn't permit the admissibility of a problem. It does not even permit recognition of a choice prior to the act. It does not ever permit human culture. All it permits is the corollary from the mores principle: whatever is, is. Which though true, is not helpful.

Then our problem becomes immediately apparent. That is, what is in fact used in the resolution of a problem? What is the theory of value--the criterion of judgment--used in choosing among alternatives. We shall get at it by looking at the actual operation of making choices among alternatives, and looking directly at what we are doing.

I want to look at this problem of the seeming involvement of predeterminism in any theory of value other than an animistic one. The difficulty is conceiving genuineness of choices and, at the same time, granting continuity--in the sense I have defined previously. In its plainest form, it frequently appears thus: If it be true that things are causally determined, then are not the choices made equally determined by those causes? If the choices are what they are by virtue of the causally antecedent determinants, then how can you get genuine choice?

The argument has run in philosophy for at least 3000 years: you may think you made a genuine, free choice, but the causal antecedents of that choice were whatever they were before the choice was made, and they specified the choice, which seems to destroy the concept of genuineness. And if there be no genuine choice, then the whole analysis of value is beside the point. If there isn't such a thing as reason, which itself is explicable in terms of causal determination, then you are reduced to the nihilist position. There is either a blind "dance of the atoms," or patterns which are internally consistent in causal terms, which means predetermination.

But if the causal determination is not exclusive of genuine choice, then predetermination doesn't follow, and it makes sense to look at the matter of value. The prevailing supposition--often elaborately camouflaged--is that, if you have causal determination, you have predetermination. If the causal determination includes the theory of value, you have predetermination. If the causal determination excludes the theory of value, you have two choices, two possibilities: one, an animistic direction in which you don't have a dance of the atoms or, two, a non-animistic direction, in which case you do have a dance of the atoms.

Now beginning with our everyday experience, we know that an airplane engine isn't just a dance of the atoms. We know that rabbits don't come out of hats. We know that there is pattern in that sense. There is science, patterns drawn in causal terms.

STUDENT: *"Can't you have determinism in the universe as a whole, while having a large number of alternatives and, therefore, have genuine choice? Marx said history leads inexorably to the downfall of capitalism, but he recognized alternatives even in that deterministic proposition."*

That's the kind of confusion I was talking about when I said that no matter how you camouflage it, it is still there. You can say that the problem arises out of something else and, therefore, the problem is exterior to the universe. You can say that, being such, it is subject to identification exterior to the operation of the whole. But you can't have determinism and include in the universe the process of making judgments, and at the same time take the position that you don't have determinism in the process. You can't say that you recognize determinism in the universe as a whole, and then say that by increasing the number of alternatives you can increase genuine choices in one aspect of that universe.

You and Marx and Ricardo are all involved in the same confusion. It is determinist everywhere except in those who determine it, and they have free choice. Marx said two things at the same time. One: the five laws of capitalist development--the positive tendencies,

continuous, uninterrupted, interminable in the universe of capitalism resulting inevitably in a contradiction. Two: human nature resulting in class conflict. Out of the chaos the proletariat will win, given the continuing factors of human nature--self interest, and a single class for whom self interest means no other classes, will lead to classless society. No other class could exist, says Marx, without the proletariat, without labor in his terminology. So you will have a class society so long as there is any class in power determining the relations of production other than labor. But when labor comes to power, as it does in the laws of the development of capitalism, all classes will be destroyed other than labor.

That is not accidental; it is not because someone says so. The theory of communism is why someone says so. Marx said this will come about because of the forces at play and because of the nature of human beings. His whole thesis is saying, "Rise up, workers, and shed your chains," etc., because this won't come about if you don't do something about it. At the same time, he is saying he has the explanation of how you cannot avoid coming to that decision. To Marx's mind, he was saying you do it because you have to.

[no lecture fourteen]

lecture fifteen

STUDENT: *"A professor in this school characterized Ayres as Ayres-ism. He considers an "ism" to be generic with mores, because it specifies right or wrong. I'm sort of confused. Your definition of an "ism" is, as I understand, a particular institutional structure, a particular pattern of institutions."*

The gentleman is mistaken, if he wasn't being facetious. Ayres provides you with a way of judging an institution in terms of whether it is good or bad; he doesn't tell you which institutions are good or bad. There is no institution which as such is good or bad. An "ism" is exactly the contrary in its eventuation. What I speak of as an "ism," of course, is a system of theoretical structure which validates a particular institutional structure. The "ism" isn't the structure, but it validates one. What structure does Ayres validate? That is to ask, what "ism?" None.

The gentleman doesn't understand Ayres at that point. And that is what I tried to bring out in the discussion of the relationship between the mores principle and the utility theory of value. The utility theory of value necessarily, it seems to me, results in an ismatic approach to social problems, because you like the things you learn to like. And what you learn to like is a function of the cultural pattern within which habits are determined. Thus, any application of the utility theory of value gives you a theoretical structure for analyzing problems but cannot solve problems. It justifies existing institutions, as a corollary of the mores principle.

Ayres's work denies the validity of any institution as such. Validity in Ayres's analysis does not lie in institutions. As he says over and over, the locus of value is not in institutions. The sum result of Ayres's work in "ism" terms is the denial of "isms."

STUDENT: *"The common sense reaction to Ayres's approach takes the form of believing that, in some sense or other, there must be an "ism" to it, because to deviate from an actual relativism position means that you assume some doctrinaire position, and you get that dualism you described."*

Yes. The same thing the critics found with Veblen. He isn't going anywhere--where meaning an "ism," a particular pattern of institutional arrangements. And that's right. Neither Ayres nor Veblen is going any that kind of "where." On the other hand, that would seem to the student at that stage of the analysis to be key to understanding either. If you preclude the possibility of a natural-order basis, then something else is guiding the process as it goes we-know-not-where.

That kind of positivism is making strong replacement just as of now. We don't know "where;" agreement there. But we know there is a "where," and positivists think we will know when we get there, to some outside-the-process situation, unknown and unknowable, normative but "there." And of course they require an animistic teleology by virtue of habit or something--a particular pattern of human nature or God as the fundamental datum in understanding the social process. Another emanation of the mores principle.

Last time we were trying to get close enough to the value problem to see what we are up against. An item we ought to examine here is the effort in the immediately current literature--clearly discernible only in the last four or five years, since the war--to retain validification in terms of an unarticulated but nevertheless fairly definite pattern of institutions and, at the same time, to seem to have abandoned that basis. It is parallel to the heavenly city of the 18th century philosophers, who made the same effort to make sense out of what they knew, abandoning teleology but retaining the full stock of working conceptology with which they had developed value theory.

It has taken the form of the requirement to recognize that we don't know, and cannot know, anything about where we are ultimately going, in terms of institutional structure. It is no longer Veblen's pre-Darwinian scholarship, but it is an effort to hold the same results after explicitly recognizing the necessity of abandoning the way those results were expressed in the literature. It is being done as, "We don't know where we're going, but we're on our way," still retaining the belief that there is a "where" to where we are going in terms of institutional structure. So the analysis now, in the last rampart of getting to a particular structure, is to deny knowledge of the structure and to deny the possibility of using it in the analysis of our experiences, yet managing to retain the same results of the old analysis: to wit, the validification of a particular institutional pattern.

This has been done at the philosophical level through the normative-positive distinction, and at the social science level, so to speak, through the intellectual permission furnished by that distinction to be concerned entirely with the operation of particular patterns of institutions without question of efficacy at any stage. The result is a simple catalog description, which itself cannot be accomplished without valuation. When valuation is inescapably and consciously encountered, the escape device is to the effect that it can be judged only relative to the culture which accredits it--any pattern of human behavior--and then proceeding as if no imputation of value had been made.

Thus, you see, the social analyst can reach exactly the same conclusions through what I have characterized as an imputation upon encountering the value problem, by virtue of the denial of the knowledge of ultimates which comes out of the normative-positive distinction in philosophy, the normative being unknown and unknowable in the sense that you can know positive data. So, I think, you will find the literature at that stage in most part: the amelioration of the naked problem as it appeared theretofore up until the recent repudiation of the utility theory.

Before that, the problem could be met head on and answered directly, and still attain the validification of a particular pattern of institutions. After the failure of the intellectual permission offered by the utility theory of value, recourse has been taken to what I have just stated in order to maintain validification of a particular pattern of human relations. That literature I expect to expand feverishly, particularly in philosophy and economics, before it dies altogether. There is an almost vehement fear of any effort at the organized representation of institutions in professional scholarship in the social sciences now, a fear of any effort to go beyond the normative-positive distinction or to question it, the reason of course being implicit in what we have already examined.

If you abandon recourse to the normative-positive distinction, you abandon "isms," and you abandon any hope of validating any particular "ism" as such. That is why people become

proponents and opponents of utility theory: Which pattern of institutions does this theory validate? The answer has proponents and opponents. When that possibility is gone, that is to say, when you abandon the normative-positive distinction supporting utility theory, then social theory can no longer perform that function of inconclusive debate. Then it becomes a science.

At any particular stage in the development of social theory, you will find feverish effort to maintain the answers which can no longer be maintained in the old form. A revamping of the theory, always the same answers. No one any longer asks such questions of areas of inquiry--such as physics--where theories are constructed in view of the scientific criterion. But I would have you note that time was, not so long ago, when that was the most explosive question on this earth. When it became apparent that physics could no longer be used to validate one particular power structure or another, physicists were burned at the stake, they suffered physical torture because the earth revolves around the sun.

Even at the time of the publication of The Origin of Species and Ancient Law, Maine's study caused hardly a ripple compared to Darwin's. [Today] no sane biologist would question the validity of the question that Darwin was asking. They now disagree with Darwin mostly in the details because of subsequent analysis, but accept the validity of the question of whether and how species come to be. No one would have the slightest hesitation--even at Baylor University where it is explicitly forbidden by administrative fiat--to recognize the validity of that question. Since Hermann Joseph Muller's work, there is no ground for denying the validity of that question. But it occurs. Within my lifetime we have had trials and sent men to prison. Sir Henry Maine asked exactly the same question about the law, and no one raised an eyebrow. But today, Maine's Ancient Law is causing a revolution. In law schools today, students found in possession of that book are looked at askance by many professors. A hundred years since its publication. Why? The problem hadn't arisen then. Then you could still validate a legal structure through the utility theory of value and its applications, for the most part the theory of justice coming in through the mores principle.

A century ago, biological theory was new and was still used to validate institutional structure, to validate patterns of human relationships--racial discrimination, citizenship, property rights. Today, biology has nothing to do with those things, but then, biology was an area of vehement turmoil. And if Darwin's question were a genuine one, it knocked the whole business into a cocked hat.

What happened in biology and physics, and even earlier in astronomy, was the attainment of rational value theory that cut out the possibility of validation of a power structure through that area. That is the point at which the struggle gets bitter. In that respect, law is today where biology was 100 years ago. And since Veblen, political economy is in that stage, where the best scholars in the field suspect that it is no longer serviceable as validation of a particular institutional structure. That is to say, it has become a science. Not that it has solved all its problems, or even begun to find the questions that it should ask itself. But it has attained the possibility of scientific analysis, and that possibility stage causes the turmoil.

We have already seen that, in the actual resolution of a problematic situation, you can't use the utility theory of value. You can use it in your formulation and explanation, but you can't use it in your operations, because it isn't true. That is to say, it isn't in conjugate correspondence with the facts of the case--the criterion of judgment permitting resolution of problematic situations.

What I hoped to make clear last time was that we are asking what criterion of judgment to use. We can't conceive a problem without an application of the theory of value. We can't solve a problem without the application of a theory of value, in the sense that the recognition of a problem means that something is wrong, missing, incomplete. Those are judgments--something

is out of order, something isn't working. We are making what Lionel Robbins would call normative judgments, that is to say, value judgments. There is no practical operation other than habitual or random which does not require the knowing and using of that which is supposedly unknown and unusable. So we might as well divest ourselves of that nonsense--to try to operate using something which is unknown and unknowable.

If we know anything at all, we know that we do make normative judgments. So we can set up a normative-positive distinction in human experience on other grounds. Those words "normative-positive distinction" can have an instrumental value. But in the sense in which it is now being used in the literature, there is no such distinction and can be no such distinction.

So we are confronted with recognizing the absolute necessity of the use of a theory of value.

lecture sixteen

....

We use the instrumental-ceremonial distinction to distinguish between genuine social problems and imaginary or artificial problems. There is a difference in the character of problems and in their solution. Genuine problems have to do with the efficiency of the economic process. Artificial problems arise from efforts to apply the wrong theory of value.

....

There is no other good in the economic sense than the maintenance and advance of the efficiency of the economic process--the provision of real income. That is what the instrumental theory of value asserts. And you cannot solve real problems that interfere with the efficient ongoing of the economic process by trying to apply the utility criterion of judgment to the solution of these problems which are of a different character. You can't apply the instrumental criterion at the same time that you apply a non-instrumental criterion. And if the problem is what it is by virtue of efforts to apply a non-instrumental criterion of any sort, you hit the missing middle. You don't partly apply one and partly apply the other to the same problem. What you are doing is trying to apply one to one problem and the other to another problem. Solutions like invidious differentiations, which may appear to an individual or a group or a community as having solved the problem, do not remove the incidences of the genuine problem. The solution to artificial problems is to stop trying to apply the wrong theory of value. They are problems of human folly which, when solved in invidious terms, not only do not solve the problem but create additional genuine problems.

....

lecture seventeen

....

The whole purpose of this course is to show that the determination of the criterion of judgment and its application in social analysis is exterior to a culture, that is to say, independent of a particular culture. They are part of culture, in the sense that they are humanly conceptual and come out of intellectual intercourse with other humans. But they are not simply what we have learned, as is the case with the corollary of the mores principle. That would be myth, non-science rather than science. Science is peculiarly a-cultural in the latter sense.

What I hoped to get into is the matter of the character of the social problem within a particular institution or a few institutions, as part of the whole of the institutional scheme. The tendency in that regard is to confuse a problem arising within a particular institutional structure with a particular item in that structure. The tendency is to try to look at that kind of social problem in the same sense that you look at a personal problem as distinct from a social

problem, that is to say, as a matter of what constitutes the kind of given data, rather than which is the correct distinction between the personal and the social problem.

It seems to me the social problem arising within a particular institution within the whole cultural scheme of institutions is quite another kind, despite its similarity with any other social problem. And the distinction involves a preview, or at least some light on, what I shall call the principle of recognized interdependence and the principle of minimal dislocation.

A point I want to bring up before we proceed, however, is this matter of equilibrium and, of course, the parallel question of the equational theory of justice, which is one of the applications of the theory. Far and away the clearest and most sharply defined instance of it is in economics, in the mathematical presentation of the economic process by theorists like [*Pareto,*] Cassel, [*and Hicks*]. The best, and certainly most elaborately worked out, example of the general concept is the mathematical economic analysis, running in terms of demand and supply, or demand or supply, determined by the price of all other commodities, which gives you a series of equations. Since you have as many equations as you have unknowns or items in the equations, you can always find the numerical evaluation of any one in terms of the others. It takes various forms with various techniques: Cassel's is cost, Hicks's is indifference analysis.

What we have is cost, as well as utility, in terms of alternative utility in such analysis. Then, ostensibly, the problem of the missing middle between utility and disutility is erased, and we have what is generally attributed to the neoclassicists in economic theory: the difficulties involved in the utility-disutility bifurcation on a common attribute measurable in common terms, that is to say, price.

The fundamental philosophical question involved, of course, is troublesome in that utility and disutility are clearly identified as different kinds of experience, not different degrees of the same kind of experience. The whole history of the question of value has proceeded into a bifurcation, a resolution always called the great synthesis, an evidential demonstration of the [*unity of utility and disutility:*] inadequacy, nihilism, bifurcation, synthesis, nihilism, etc. That has occurred some four or five times within written history. And it is because of the missing middle [*--a discontinuity that is eliminated by a synthesis.*] The synthesis gets rid of the missing middle, and is accomplished in that fashion.

We have utility and disutility being conceived, in the earlier stages of this kind of analysis, as two different kinds of things: pleasure and pain. The resolution of it, the synthesis, was attained through the mathematical analysis. Its early stages in the hands of Jevons didn't seem to attain a real synthesis because it left so many problems unsolved. The real synthesis came later, by making both pleasure and pain utilities. Costs are not a different kind of thing. In this sense you have a missing middle, not minus and plus, but disutility and utility. The synthesis is constituted by doing away with the Stoics: it is not painful, but when there is more of something you don't experience [*abstinence, opportunity cost*] than of something you do experience, you have thereby sacrificed value, that is, utility. You have experienced a "real" cost, with a unified concept of what constitutes value.

Thus the synthesis. The problems that arise by virtue of the difference in character between pleasure and pain is erased. The minus aspect is what has been foregone in human experience by virtue of the operations looking toward the plus aspect--utility. That is the character of the new utilitarianism, as contrasted with primitive hedonism, the reason being--again coming out of economics into philosophy and the other social sciences--that the problems arising in setting up the equational analysis in this stage of utilitarianism resulted in some very embarrassing answers--Karl Marx. And so the economists speak of this kind of analysis as real cost analysis--real cost as different from real rewards. And here it is comparative costs, costs being the same thing as rewards. Thus, you can set up a theory of wages measuring disutility

and utility by the same units because they are the same thing. It is other things foregone, you see.

Ostensibly, this solved the problem of the missing middle by reducing both supply and demand to utility--comparative utility of any given means of experience to other means of experience both conceived in these terms. But does this solve the problem? Quite clearly, it will fit comparative consumer prices if the rest of the circle be given, like any other commodity price.

But--trying to help the devil prove his case--what determines [*the equilibrium relationship in comparative cost analysis*]? These supply and demand schedules still look just as they did to Smith or Ricardo or Mill. But they are conceived so as to avoid the problem of discontinuity between utility and disutility. The theory of wages, for example. You get marginal revenue or the marginal utility of all objects or of any commodity you want, either one. In this case, labor--and the marginal disutility of working conceived as what you could do other than work rather than the pain of working. The real cost is not the pain; it is what you could have done other than work. You could have gone fishing, etc.

Given all this, we have two questions to answer, and if we can't answer them, what do we mean by the significance of this theory? Do we mean that it explains something? If so, what? Well, we have a definite equational expression, given the accuracy of all the schedules. If the schedules change, we will have new relative exchange ratios among the means of experience. We will obtain equilibrium at some other point. But we haven't explained anything in the sense that it will help us resolve problematic situations. What is the old or the new picture good for? If it is completely without significance, why bother with it? If social science is to be restricted to simple description or definition or identification, then what significance has it?

Explanation is something other than description. And I would have you note that the very spokesmen who insist that social science be restricted to a description of the run of the facts are the most dismayed when anyone suggests that social science is in fact worthless. What, then, is their idea of significance? Quite clearly they mean that this picture allows, or at least helps, us to know what we ought to do. But "to do" means motion, activity, and the laws of motion would not describe different equilibria. They would have to be set up in terms of direction and philosophies of change, as in the differential calculus. That is to say, the laws of motion would disclose to us why the picture is changing, and the "why" would have to disclose the character of the process of the shift. Such a concept of process does not permit cutting a cross section here and a cross section there and describing each (shades of John Bates Clark), and assuming thereby that you have a theory of the process as Marshall tried to get at it. You don't get dynamic by putting cross sections of the static closer together. You don't understand why people change by taking their picture more frequently. The data you record in frequent photography might be valuable in working out the theory of growth or of change, but they don't disclose to you the theory of change. And they quite clearly don't constitute a theory of change.

What I have said in substance is that significance in the analysis of the social process inescapably involves valuations. The process, as these spokesmen admit, constantly involves what goes on in the minds of--I would say "man," they would say "the entrepreneur," "economic man," the man whose decisions eventuate in this or that.

What is wrong with the theory of mathematical equilibrium in so far as explanation is concerned? Accepting their specifications for the universe under consideration--in this instance, the determination of the character and the rate of provision of the means of human experience--unquestionably relative exchange ratios in anybody's economy are very important. They determine the extensive area of the character of the means of human life and experience, and therefore determine the character of that actual life and experience. Then what is the difficulty? Offhand it seems the approach is progressive. It has a single criterion of judgment, and thus

ostensibly avoids the problem of the bifurcated connotation of utility and disutility. We have a way to compare one quantity of utility with another quantity of utility and, thus, satisfactorily arrive at a just--and therefore proper--exchange ratio and, therefore, a just determination of the character of the means of life and, therefore, a just determination of the character of human experience over any given time period. Then what is wrong, given the equational theory of price and of justice, or the equational theory of justice and the equilibrium theory of price, and given the imputed significance--though denied by the major spokesmen for the theory--and given the specifications of the universe of relative prices? Let us look at it in relation to the specific example of the theory of wages to see what is wrong.

lecture eighteen

Last time we indicated the significant import of the equilibrium concept, particularly as it is thought to be susceptible to mathematical expression by virtue of decisions of persons who exchange items which have that attribute--utility. We noted that this expression attains the determination of justice and, therefore, propriety in the character of production and the quantity of production; and since the character and quantity of the means of life [*determine*] the character of experience, [*equilibrium specifies*] the social process itself.

Then we asked ourselves the question of what is wrong, if anything, with this effort to avoid the difficulties in the bifurcation of the plus-minus aspects of it which make it amenable to determination of equilibrium in mathematical terms, that is to say, using mathematical language. We had [*said that*] almost all economic theory is drawn in those terms, the only [*measurement of which*] being, in economics, that of price, the price theory of valuation. It is used by other social scientists in other terms--certainly by the [*political scientists*] and sociologists and anthropologists in most part--the idea that people seek satisfaction, which we had already noted in the most elaborate presentation, that of the marginal utility analysis in economics. It looks like hardly more than a description of a situation, allowing no possibility, at least offering difficulty, in getting to what those theorists usually call a "dynamic" explanation or expression in terms of process, the general procedure in that instance being chronologically very frequent cross sections so close together that you can draw a trend. And statistical analysis, you will note, uses that construct very extensively, and where correlations are established, it would seem to be a valid tool.

That is especially true in the examination of phenomena that do not involve the exercise of discretion, that is to say, immediately applicable in the area we call physical science. The difficulties arise by virtue of this attribute we call reason, and thus the choice-making function, and I fear that most of the mistakes made in statistical matters are a result of forgetting that human beings differ from other items, relationships between which may be analyzed through the use of that tool. It seems to me that the problem at that point has not been sufficiently examined to make any very reasonable judgments about where that kind of operation is valid and where it is not valid.

Where valuation is taking place about non-evaluating items, it is simply and clearly a problem primarily of mathematics, technique of expression so as to bring into view the determinants of the problem simultaneously, so to speak. But in the case of an analysis of the correlated behavior or the interrelationships among evaluating items--persons--another element is introduced which seems to me to do fatal violence in many instances to the application of this same theory.

STUDENT: [*Can't you use the theory of probability with large numbers?*]

Yes, and of course that is done. The difficulty is that your problem almost always should not involve infinite numbers. To get to confident predictions through that technique, the numbers

required for the theory of probability to give confidence is larger than the number of persons who are involved in an institutional situation. In the case of an individual family, or in the case of a particular wage dispute, the *[statistical]* correlation of various items which are variant through previously observed sequences, the simple function of which is identical with the one under examination, will not tell you what will happen, even though your previous experience has been the correlation of 100% positive.

I think the theory of probability applies, certainly, but the problem is really not one of *[statistics]*, your problem is one of examining and determining what is involved in and what constitutes and what determines the evaluative process. The fact of valuation on the part of the items being examined, it seems to me, changes the assumptions, changes the items about which the assumptions are made in the case of non-evaluating items like molecules or worms or something. So the real problem you have to solve is not the problem you attack when you apply that kind of statistical measurement to non-evaluating items.

With humans, the problem is always one of determining the process of evaluation before you can proceed with the statistical tools of the items about which you presumably know its behavior evaluatively-wise, which is always the case in non-human or, at least, in non-animal activity. It is always true of machinery, but it is never true of human beings. You have a doubtful area all the way down, depending on the complexity of the evaluating activity that goes on in the living organism. Of course, we all know that in some sense or other almost all living organisms evaluate. Plants diverge by virtue of encountering certain stimuli, and they don't all diverge the same. There are individual differences.

STUDENT: *"Would you mind [repeating] that again? I seem to think that you said there was a degree of predictability in machines that there isn't in humans, and I'm sure I didn't catch it."*

Well, I'm sure you didn't too. The range of predictability in human behavior, I should say, is of course the same range--exactly what it is in the case of electron analysis, or stellar bodies, or chairs. Exactly: it is from zero to complete confidence. In the case of human behavior it has the same range.

That wasn't the point I was discussing at all. The point I was trying to make was the realization that the assumption underlying the application of this tool we call the "trend," which is simply a particular application of the theory of probability, becomes invalid when it is applied to relations between evaluating items, since it is drawn on the assumption that there is a non-evaluating situation among the items the relationship of which is under investigation. It is the process of evaluating that invalidates the presumption involved in the application of the central-tendency idea.

We can go farther than that, I think. We can say that in any problematic situation in which it would appear desirable to apply that tool to the analysis of a particular problem--if you want to apply it to some aspect of the social process which appears to be incomplete or something is out of order or something like that--in the case of human beings you first have to work out the problem of value and evaluating before you can apply that technique. The technique is applied just like it is in physical science. It is applied as if we in fact do know the outcome of each individual item's response to the forces which comprise the data of the problem. We don't. That is my point. We don't unless we understand the theory of value, the theory of valuation, and the data which that theory indicates in relation to that particular item being investigated.

And a third point which I think we can see is that in collecting those data we do not, we cannot, be guided by the theory of probability itself, nor by the theory as it is applied in physics, because of the difference in character of the operation. An example of that appeared in an MBA degree examination I sat in on, in which the student had a minor in statistics. One of his professors happened to notice a chart in the room which showed the experience of

haberdashery retail business over some twelve to fourteen years, and asked him to make an estimate of the correlation between the two variables involved; one was retail price, the other I forgot. The student guessed it pretty accurately at about 85%. Then it occurred to me that both the questioner and the candidate thought that was significant. I said, "Take a period in the highest correlation, from year X to Y; you're in the business, and this is the run of the facts. You're going to use this knowledge of correlations to determine what you are going to do this week. In the fall of this year, you have to decide how much and what kind of what to buy. The positive correlation here is pretty high, better than .8. Are you going to increase your stock, or are you going to decrease your inventory?" Well, he immediately saw the point, of course. What would happen is if he had, he would have been bankrupt within a matter of a couple of months. And bankruptcy to business is sort of like death to an individual organism; you aren't any more

My point was that you can't predict the actions of human beings that way, unless you know why that correlation was established. And that "why" is the constant presence of evaluation in the process and the determinants of that evaluating process. The general principles necessarily have to continue, but the data that those principles identify suddenly reverse themselves at that point, and the correlation for a short period of boom is gone. It is reversed. You can't predict that way, by virtue of the fact that human beings evaluate, unless and until you get the data which are not disclosed in such charts, those data being dictated by what is involved in the evaluative process.

Some time ago, we had illustrated utility and disutility in retrospect in which we had a bifurcation of two different things. It seemed to be a necessity of real cost analysis, the last determinants of it being the disutility analysis in the *[neo]*classical development in economic theory, along with positive utility in the earlier stages of the utilitarian doctrine, usually referred to as hedonism, and the reconciliation of that missing-middle situation by making this conceivable in these terms. Thus the synthesis. That is what Marshall was supposed to have done for the civilized community, and then on into philosophy and the social sciences, the familiar graphical presentation of it as it appears in economics as a determination of equilibrium price. And you can set that up in terms of comparative equilibrium price for any number of items, and through the equations represented by these schedules get the equilibrium point on both these axes--price or measuring unit, and quantity--between any two commodities.

That is raised to the level of general principle somewhat in this wise. As everyone knows, the economic process doesn't stop, and in this sense you might represent it by circles and start anywhere you want. Start at consumption, and all the things that go on in the economic process resulting in more consumption, resulting in energy, etc., round and round, resulting in more consumption. The theories centered on the theory of progress and how that circle got larger and larger, and thus it takes such forms as the Austrian development of roundaboutness, which is farther from any point you want to start at, and go back to that position. More indirect operations in the circle enlarge the community's--and thus each individual's--economic life and then society's life generally by virtue of the experience in it--the theory of capital formation making use of the development. You can start where you want to, it doesn't make any difference in this analysis. The neoclassical theory can be stated quite as well from one point in the circle as the other.

Somewhere around here, you have two stages involved in which this difference becomes a real problem--the one of wages, in which you're getting the equilibrium identified between this and this, or this and this, presumably in this and this, already having recognized the difficulty in here. Granting the attainment of *[equilibrium]*, and granting all the assumptions that go with it, then examine a position in this circle which involves, on the one hand, human experience which is completely in conformity with this basic idea, because all points on this circle are reducible in

this theory to those terms. It is not the physical matters that are determined, it is the human incidence. And what human incidence? Utility. And utility can be defined in such a manner as to make that, in fact, a truism, where it is necessarily so.

My point will be that what you get then is a chronological presentation of a cross section of the situation which you purport to explain. And it becomes most apparent at two points ... when what that point is reducible to in the economic process is what you began with. That *[situation]* is most easily observable in the case of consumer goods and in the case of wages.

This buying of labor. In the case of wages, in Marshall's terms set up as an equilibrium position between the schedule of the marginal productivity of labor and the schedule of the marginal disutility of working. It is no different in any other social science except, in this case, there is interposed a price theory of valuation which gives you equilibration on this *[quantity]* axis, which avoids this difficulty by applying this concept in these terms. Now this *[supply]* schedule is presented on the assumption that, as anywhere else along here, the alternative foregone *[by working is the utility of not working]*--which is true as long as you are trading a commodity for a commodity. In the purchase of human labor, there are no *[positive alternatives]* involved. *[The worker]* can buy white bread or rye bread or whatever, but when you buy human labor, what are your alternatives?

This *[labor supply curve]* is set up like any other application of price theory, as if the alternative were what is presented here. The assumption is that *[the worker]* has the alternative between working and not working, and that certainly is true, isn't it? You don't have to work, you can starve to death, if you want to. But it isn't starvation that is presented as the alternative, because then it wouldn't be in this shape. I presume that you would hate to starve to death at one time as much as at another time.

When you take away real cost analysis and get to comparative cost analysis, which seems to have resolved the problem inherent in this bifurcation, you get yourself into the difficulty that I'm trying to focus on now. What is the alternative to work? What is assumed positive here is leisure, isn't it? And of course, as all of you who have had economics courses with me in which this arises know, that isn't an alternative to employment at all. Leisure, with very slight reflection--and how it has missed the economists beats me--is an attribute of employment, not an alternative to employment. It is an alternative to working when you are employed. It's an alternative available to those who have placement in the institutional structure we call employment. As a descriptive fact, it is not an attribute of unemployment at all. That's why we have always thought that unemployment wasn't leisurely at all. It is the most not-*[leisurely]* that you can imagine. In the case of non-availability of alternative placement in the economic structure, so as to receive income--which is the presumption of the theory we are considering--there is *[no leisure]* involved, yet all of it is "not working."

The assumption is that not working and leisure are the same thing, and in fact they are not. What we mean by leisure in these terms is an attribute of employment, meaning, of course, as the man on the street has always known, when you have a job, the time you are not working is the time you're off the job. You get off at 3 PM, and then you are at leisure until the next morning when you go back to work. But if you don't start to work the next morning, if you aren't placed in the institutional structure in that fashion, you're not at leisure from 3 until 9 the next morning. You don't have that experience during that time. What you have is something different. If you have a job, you just love to get off. But if you are unemployed, you hate to see 3 PM come just as much as you hate to see 9 AM come--in these terms. But if the terms are different in your alternatives, you've got these problems. And these problems already have been proven fatal by the very spokesman of this theory.

So what are you going to do, when half of the equation is human life? And that's true of the price determination of consumer goods as well as wages. In the case of wages, half of it is

direct human experience. There is nothing in between, so that you do not have the alternative of imputation of the price theory of valuation through the price theory of valuation that you do in the case of commodities. In the case of consumer goods, half of the equation is human life. The alternative to consuming is death, and death is not measurable in foregone utility.

We have always known that, when you get down to rock bottom, the practical actualities of human experience *[are]* that human life has no price. It is priceless. We have always known that it doesn't fit the utility theory of value, and no one has ever questioned that. Yet, I will have you note in view of what we said last time, that if this theory's significance is not human life, then it has none at all. The commodity doesn't make any difference, as John Stuart Mill explains very carefully. It is its impact in terms of human life that makes the difference, that establishes that equilibrium. And it is presumed that human behavior is already known as chronologically anterior to the application of the theory of probability to the *[supply and demand of labor]*. And it isn't. Now, my point is this: you cannot determine wages this way. It can be shown, as John Maynard Keynes shows beyond any shadow of a doubt in anybody's mind, that that *[supply]* schedule does not exist. He puts it up so pat that it is a truism, and everyone agrees that all truisms are true. But they are sort of ridiculous if you try to make them something other than a truism.

The same thing is true in the determination of prices of consumer goods. When you reach the point where the alternatives are in fact the inclusive ones, between consuming and not consuming, your whole pattern of presumptions falls to pieces. Everybody knows that when that is the set of alternatives, there are none. There can be no choice between life and death. That's why this whole recent question of allowing a physician to make a judgment in the case of a particular patient is absurd. Of course he cannot, and we cannot allow it on very valid, evidential, scientific grounds. You can't do it that way.

And if wages and consumer prices are not to be fitted *[into the circle of the economic process]*--and note that they occur all the way around here: always labor is being purchased, always consumers are buying products, always production, final stage, is being turned into human life, into human experience. You eat it and wear it out--and some things don't even do that. The more you use it the more you have, like music and love and bubble gum.

You can't *[use the comparative cost analysis]*. You have to make an imputation around every *[proposed alternative]*. And you don't know whether that line runs off down here in these terms, or whether it just goes right on down there, do you? You can't fit the theory of wages into this business. And I use the theory of wages as an item because it is in the literature, demonstrably, and so far as I know completely without refutation, as incompatible with *[comparative cost analysis]*. But if you go back to *[real cost]*, you encounter fatal difficulties to the general theory, you are applying, and you're bankrupt again. Thus nihilism. And what has occurred in response to the synthesis that has come out of the recognition of the problems involved here has been a tendency toward nihilism, and the impossibility of the application of the nihilistic pattern of intellectual operations to real problems has resulted in the *[birth]* of any number of positivisms, from fascism to existentialism.

So when we ask, for example, what sacrifices the laborer makes which fit this specification, you will find that there are none. Labor, then, is not a commodity except in the sense of one attribute: it is purchased and sold. The fact seems to me to be clear that unemployment does not have positive utility. Then what is the alternative which gets labor started around in the circle? In the mathematically equilibrated relationships that we have set up--and I certainly think it is a very valuable tool in analyzing the referential content represented by that circle--there is such a process, you know. If those gaps are to be bridged over, can we grant the assumptions upon which the general theory is built? If not, then how can all prices be defined in terms of all other prices of that circle? You have to have as many equations as you

have unknowns, and you have as many unknowns as you have commodities. At least two of these items in the circle don't fit. You have two more unknowns than you have equations. And those two--prices of consumer goods and price of labor--don't have a commodity intervening which gives them a common attribute of measurement.

So you can't, it seems to me, apply the utility theory of value even through the concept of equilibrium, as giving you direction of analysis and arrangement of data for analysis. The data aren't there in two of your equations. You come up with an equation like this: $x + \text{what} = \text{what}$? And I suggest that you can't solve that equation. The reason is that one of the "whats" isn't there. When you have more unknowns than equations, you are wasting your time.

lecture nineteen

STUDENT: *"You indicated yesterday that any decision like mercy-killing would in fact be an irrational decision. You couldn't make a rational choice to follow that course of action."*

That's right. There are any number of ways of putting it. Perhaps the most succinct way is this: so long as one is alive, it means (incidentally, this is the same problem as in suicide exactly--*[the choice]* between life and death) he is operating at some level of efficiency. It may well be that, to him as an individual, it is intolerable. The pain may be excruciating. The interruption of his faculties--and particularly his intellectual faculties--may be such as to make him wish for death, and he may beg his friends to destroy him, or the community or his friends might consider it on their own. But the fact remains, and it is a fact, that he is operating at some level of efficiency, and the choice to destroy is zero in preference to that level. That's the inclusive way of putting it, I think.

There are other ways and other items which might help substantiate the position which seems to me to be irrefutable. You don't know the determinants of the future in the technological sense, including the individual's physiognomy, and you know that you don't know. Some of the greatest contributions to civilization in the whole development have come from persons for whom that decision would appear at first blush as rational as could be made. In the application of an instrumental theory of value, that decision is impossible. In the effort to apply the utility theory of value, that decision may be made. But happiness is not the end of life. As Einstein once explained, it is fit for a criterion of judgment only for a herd of cattle. And I am sure that cattle are much happier than most persons, in the ordinary sense of the word happy; they have fewer irresolvable problems (and that is what produces unhappiness) than have human beings. They are content, but who wants to be a cow? I think maybe a buzzard ought to be the happiest of all animals, but I don't want to be a buzzard. And to wish to decide to die, or to decide on your own or on someone else's death is a decision to be less than a buzzard. It is a decision to be less than a paramecium. It is a decision to be nothing. And nothing, I suggest, is always less than something, no matter how little something is

There can be no rational decision to kill anybody, either yourself or anyone else. It can be very difficult to see when you are in a situation yourself in which the basis of reference for the problems at hand is extremely camouflaged by thunder and lightning, etc., in your own feelings. When you feel alone, when you are cut off from the basis of reference, from the social process, when you are cut off particularly by emotional dislocation and, therefore, in the extremist *[isolation]*, then it is very difficult to think about the matter. You get frightened and disturbed. And by disturbance, I mean disruption of the rational processes. And you get to where you don't care. What you mean by "don't care" is that you cease to be rational. And in that condition, you can choose death. It is the wrong choice, necessarily the wrong choice! Either for yourself or for anyone else. Society cannot permit on quite other grounds any individual to make it--logically, society cannot permit them to destroy other members of a community unless it can be

proven that their existence threatens to destroy the community. And that has never been proven.

Capital punishment is an irrational institution. We don't know the future. You can't allow it on another basis: a person having discretion over life and death of other persons, having the power to pronounce one or the other, to choose for other persons that alternative which is not a genuine alternative. Note that all alternatives are items within the life process. There are no alternatives outside of the life process, so far as social value is concerned. Dead people make no choices socially. There is no choice, therefore, between nothing and something. If alternatives mean anything, they have to both be positive. That is simply a question of the problem we have been considering the last two hours in the bifurcation of the criterion of judgment. A choice between something and less than something is not a choice. Choices are between somethings. So to act as if you were trying to make a choice between something and nothing is nonsense.

There are other grounds: an individual who is given discretion over another person's life or not-life must be remembered to be himself a choice-making individual, and he must be remembered to be subject to all the incidences--both invidiously and instrumentally--that other persons are subject to. This is what is wrong with government by the experts, you see, no matter how they are trained. The question then arises of ultimate (if the word has any meaning in this regard) power. Discretion--complete discretion--over other persons; power to decide that other persons don't exist. If any power is final, that power is final. And remember that as an institution where there is a plurality of persons involved in each position in the institutional structure, that person will have a tendency to act in terms of his power louder than in terms of the instrumental decisions and problems at hand. And that is where the two come in conflict, he is apt to ask of himself right questions and get the wrong answers through this device which has grown up, especially in the United States, called compromise, which is an attic door with a ring of justice to it.

By compromise, of course, what has occurred throughout the history of man is that he maintains his power even though he knows better. And always the compromise is on this score: that if he doesn't, someone else will. And since he will do it better than some scoundrel, he has to do it. That is the most direct, and nearly certainly the most ceremonially adequate basis for that kind of behavior. And you find it over and over again. I saw a governor of a state weep on that score, because he knew what he was doing was wrong, but he felt he had to do it. Well, the fact is that he didn't have to do it. What he meant was that if he didn't do it, those scoundrels would, and they wouldn't do anything but that. I told him he was wrong, and he was. You can't believe something you know darn well isn't so.

STUDENT; *"Isn't it true, though, that people who claim to be using the instrumental approach would make a decision as to the life or death of an individual or a group of individuals on the basis of that individual or group's impeding the efficiency of the community?"*

Yes. But to choose death to erase that impediment is to disallow all other alternatives, and the only place that is in fact disallowed is in self-defense. It is not true that there are no alternatives other than life or death, except in defense. When a man tries to kill you, the position arises in which you have a choice between your life and his. But in no other instance do you have that choice. In no other instance are those alternatives the only ones.

A man stands before a judge for sentence, a sentence for conviction of the most heinous crimes you can imagine--and they have all been committed. The judge has other alternatives besides life or death to that man in reference to the security of the community. This man is in such a condition that, if you turn him loose in the streets, he starts killing everybody he sees right away. And there are people who are that way. They just like it, think it is fun. You still have

another alternative for the protection of the community and the social process. However, when a man is approaching you on the battlefield with a bayonet, it is a different matter. That is why a decision to wage war cannot be made on rational grounds. A decision to defend yourself in war must be made if you are to proceed on rational grounds. Pacifism has no foundation in fact. Aggression is always invalid. Defense is always valid.

.... If it were not true that defense is rational behavior, then there would be no social process, because there always are persons who like to destroy. There is nothing easier than destroying the social process, if the community doesn't defend itself.

....

STUDENT: *"If you can protect yourself defensively, the argument always arises as to whether you wait until they strike, or protect yourself by stopping them before they get as strong as you are."*

Yes. The presumption in the case of a declared war, in which each side has proclaimed and demonstrated, and it is accepted by all parties involved in the institution of war with complete confidence that everyone is operating under the same immediate motivation--that is a situation in which it is in fact true that an attack may be a defense. But in a situation in which everyone denies that he intends to kill everybody, to assume that everyone does intend to kill everyone is in error. Now, that much I have said frequently in regard to the cold-war situation, that if it were true, in fact, that Russia eventually would try to destroy the United States, then you must conclude immediately that you must attack Russia tonight, with everything you've got.

Now, no one who talks as if they want war with Russia is willing to do it now. No one thinks he is prepared to make that decision now, and correctly so. Those persons don't want war with Russia. They want a continuation of a differentiated pattern of *[income distribution]* in the U.S. They aren't fighting for a war with Russia. They are scared to death of a war with Russia. What they want is a continued favored position in this economy. And the problem internally can be very well camouflaged if enough noise is made about the wolf over on the other side of the hill. It's an old, old human trait. If you can get people to look up at the stars, you can walk by unnoticed. And if you can get people frightened of something over the hill, they forget that you are bad. And when the community begins to notice that you are really bad ..., you will find accompanying the recognition of guilt, a very loud inclination to draw attention elsewhere. The art of camouflage, a form of the moron's defense, a form of naiveté.

There are persons in both Russian and the United States who have an invidiously vested interest in maintaining the blockage of the cooperation of the two communities. This raises a problem for a particular institution charged with the immediate decision as to what behavior shall occur in the field of international relations around the world, in view of the fact that both contending parties view this set of facts: that until ways are found in which or through which the two communities can correlate their behavior to the benefit of both, the prime function of the responsible individuals in both communities is to make sure that the other community does not gain the right to resolve the pattern of that correlated behavior, that is to say, to be sure that in any eventuality you will be able to defend yourself against their arbitrary decision of your fate. The U.S. State Department is largely charged with that function at the moment, realizing that in case of an actual effort of an authoritarian dictation, ... the eventuation of the physical struggle that necessarily results is a problem of what the other two billion people in the world feel and think. Who wins the support of the other two billions decides who could, if he would, impose his will on the others.

....

lecture twenty

....

I didn't intend to give a treatise on romantic love; however, I think it is very important and, incidentally, is the most nearly vacant spot on our social analysis. Something ought to be done about it. But it is a complicated operation. I don't know how you would go about it. Most social analysts don't have the emotional power to experience it anyway...

Last time I indicated that I should like to discuss this matter of the comparative isolation of social problems in relation to the total complex of institutions within which the problem arises. What I wanted to get you to see is the relationship between that and the personal problem and the lack of synonymy between the two. And, as I indicated, this involves an articulate comprehension of the second principle of institutional adjustment in some preview sense.

All social problems, of course, involve disrapport, dislocation, conceived some way or other--non-fittingness, something missing or incomplete. When that occurs in a social process, in a system of institutions ... Let's say these are different institutions, blocks of which we separately identify, all of them made up of still smaller institutions, etc. All of them comprising the total complex of interrelated patterns. When we get large areas of that in terms of persons and patterns, we speak of it as culture, do we not? A matter of the culture.

Now, problems social in character are always arising within this process. Incidentally, now it is quite clear that the whole world is interrelated in many institutional ways--particularly economic. Events on *[an island]* in the Southwest Pacific affect what happens in the lady's dining room in New York, and the stock market, and the price of coconuts, you see. We are in fact a world economy in a very real sense.

Now a problem arises, let's say, in this institution. It goes without saying that you cannot do something about something which you don't know something about. You cannot make choices when those choices are not within your area of discretion. And it seems to me that there are two ways in which this exclusion of possible alternatives can occur. The primary one is a matter of understanding: *[when]* you can't see the connections between the problematic situation at hand and institutional factors which are in fact related to it. Example: American labor vote. They aren't bargaining for wages; they are trying to get more money per unit of labor. And they bargain about it, and each uses whatever coercive stratagem is at hand. Finally, they come to some sort of an agreement, and the agreement we call a bargain. Both sides agree.

In 1948, American labor was asking for something which destroyed the effect it hoped to obtain through obtaining *[higher wages]*. We were very close to the M point *[of true inflation]* in that year. Labor got in some measure what it was asking for, and the results were exactly opposite of what it hoped to obtain through getting what it asked for. And that bewildered them. They were doing what they knew how to do: asking for more money. And management was doing what it knew how to do--it has always done it that way--asking for less money for wages--for employees other than management.

Always before (with the possible exception of about 30 days in 1920) we had been operating far this side of the M point and, therefore, it had always been true that what they asked for eventuated in what they wanted: a higher standard of living. When they could get what they asked for--more money per unit of labor--it always resulted in their getting what they wanted--a higher standard of living, a more extensive participation in civilization, more of the means of human experience, higher real income. But now it resulted in exactly the contrary because of the difference in economic relationships ... between prices of labor and prices of other things. They didn't understand the M point; they didn't know that such a thing existed. It was never mentioned until last year in the University of Denver *[Gladys Myers Foster, "The M point & the theory of real Y." Master's thesis June 1949]*.

Now what can they do? Nothing, in the sense of applying theory available to them. What happened [*was*] they tried it a few times and got a few rounds of wage increases, and prices rose a little more each time than wages. Now labor said, "Just a minute!" We have been thinking this way, but it isn't so; something is wrong. It seems that when we get these [*wage*] increases it increases effective demand too much. How can we get more without getting an increase in effective demand more than the increase in wages? Offhand it seemed the only way was to get more money; that is the way you get "things" in our community.

But [*our community has*] thought up some odd things--like Social Security items, vacations, casualty protection, insurance--all sort of things, but no more money, you see. Let's suppose (this is hypothetical, but not altogether divorced from the run of the facts) [*the unions*] were successful in getting some of these things, while in the meantime other things happened that pulled [*aggregate demand*] back down from the M point. Other things happened which shifted the level of employment down to about here. What really happened was that the population increased during the period and just stretched this line way out, so labor then operated there.

Then they had the same problem under a different set of circumstances, a set of circumstances which led them originally to apply for more money wages always. Then let's say they are successful for the next two or three years, with increasing unemployment, in getting more non-market-effect real income. Then the market impact of their original attainment begins to take effect in the form of effective demand in the market, and prices go up at the same time that they are not getting increases in real income.

This is what is happening to American labor today. They are beginning to say, "Now, wait a minute! Last year it looked like we would get a higher income if we could get all wages down uniformly, or at least not let them get up any more, and get our gains through non-take-home pay which would affect the market in the form of consumer demand, and thus raise prices through the action of the multiplier effect. Now we've done the other thing, and real wages are going down again. What's wrong?" They still don't know about it. But suppose they did understand that. Then their course of action to attain what they want--a higher level of participation in civilization--would involve a different course of behavior than has ever been followed. They would not then sit down across the table and bargain, and stop there. To attain what they want to attain, they will have to analyze this [*M-point variable*], and then try to do some things to this [*variable*] to get what they want that used to come out of the simple operation [*of bargaining*] by virtue of the long-continued level of employment below the M point.

So far, my point would be this: that no economic problem is isolated from any other aspect of the economy, in fact. That is what we mean by an economy: that all of the products are economically interrelated. That's what constitutes an economy. And we have said that the economy now is, in a very definite way, worldwide. You might still find some autonomous, as it were, economics in a smaller size. You might find some in which complete autarchy exists. But they would have to be very primitive cultures. They couldn't have the means of experience that we are familiar with. You can't, therefore, isolate a problem in fact.

But every economic problem is, in that sense, isolated. Every time the smallest thing is wrong in any aspect of the social process, you can't go all over the world and all over all social processes and institutions, and make all adjustments--as if you were omniscient--that would result in the perfect alleviation of the problematic situation. It just can't be done. One of the specifications of the area of consideration of the problem is the one I have indicated--[*the M point*]. You have to know about it. If labor understood all that it seems to me labor now could understand, their behavior would be very different than it now is. Understanding is one of the determinants of the area of consideration of alternatives.

lecture twenty-one

Last time we were considering the matter of the equilibrium concept--how the utilitarian application works out through it--and we found that it doesn't work. We found also an effort to explain the economic process in that fashion. It results, at best, in a way of presenting an individual situation as of a particular moment, and offers no way to get at the dynamic, the process aspect. In fact, I should say that it helps very little in extensive explanation. In some instances--for example, the direct comparative estimation of human instances of consumer goods and wages, or the price of labor--we found that it offers not only no explanation, but no definition. It does not offer identification because the conditions of the analysis are not present. Which ought to lead us to suspect the analysis in some wise, by virtue of the character of the difficulties involved in *[assuming]* positive-negative aspects in terms of difference in kinds of human experiences, not only degrees.

The resolution of the problems which arise in the bifurcations of the concept of human motivation, I think, cannot be successfully attained in terms of utility at any stage in the development of that theory. I can see some possibilities of explaining comparative price, not in terms of utility but using price as a theory of valuation with a different theory of value. Of course, the significance of price theory as it now stands is that it is evaluational theory appertaining to the utility theory of value. I suggest further that the search in those terms seems hopeless; we cannot attain applicable theory. That is to say, we can find no way through that kind of theory to a formulation of a comprehension which would permit us to solve problems with which we are necessarily confronted. So I would suggest its abandonment for that purpose. I am not here suggesting its abandonment for whatever purposes can be accounted for by it--I don't know what they are, if any. What it comes to is, the reason it is inapplicable is that it is untrue and, as I hope you have already seen, applicability may be discerned in terms of truth

That's why, in the original stages of our examination of this kind of theory, I suggested the applicable and non-applicable distinction, because in a very real sense applicability is inescapably conjoined with validity--applicability in the sense of resolving problematic situations. And as we have seen, there is no escape from the compulsion toward that function. And furthermore, that if there be any other compulsions involved, I don't know what they are. No one has ever pointed them out.

However we go at an application of the utility theory in any of its forms, we come out at the point at which applications to the real problem confronted by real persons necessarily occur, and it is not applicable, working into direct judgments of human relationships in the form of the theory of justice. Not applicable in the sense that it does not offer any way to gather the data which disclose the justification of the data--the resolution of problems involving justice. In the strictly economic sphere of the exchange of commodities and/or factors of production, we find not only is it not applicable in the sense that it does not result in any possibility of selecting the data and arranging them for analysis--not only does it not do that, it also forbids that being done. And consequently it can very easily be reduced to the absurd--in parallel with the example we recently used of the choice so-called between life and death--in which a community, on the basis of the utility theory of value, could destroy itself quite "rationally" in very trying circumstances, thereby negating all human experience including the valuation one.

And so we are left with the necessity of filling that void. That effort has been repeated over and over again, of course, falling into one of two categories in relation to rational behavior: one, in which *[there is an a priori and arbitrary assumption of an infinite number of teleological theories of value; and two, in which there is a one-choice theory of value and an infinite number of theories of valuation.*

In the one], the question of the beginning datum may be set forth arbitrarily, and then formulations which work out into specifications of human behavior which seemingly follow from

it--in the John Stuart Mill sense of continuity, meaning juxtaposition conceptually rather than similarity conceptually, chronologically or otherwise--juxtaposition in such a fashion as to get at what we sometimes now speak of as the William James problem of the nature of the cause. In that category, you can say anything you wish: "In the beginning there was ..." or "At bottom there is this ...," and then proceed accordingly either positional-wise or similarity-wise, to *[explain]* "why" this sort of thing.

Note that what we are starting with here is the non-evidential determination of the basic data, and since those data determine the character of your answers to all problems within the known data of those problems, and since, as it were, one answer is as good as another, then you can predetermine your answers by preselecting your data and then choosing the criterion, or what results in the criterion, by choosing the basic data accordingly. That is to say, you can work your problems backwards.

I would suggest that is a complete circumvention of the problem. We say you can work your problems backwards. What we are saying, of course, is that you can select what you wish would be an answer to the problems, to remain on safe ground, and work back through analysis, disclosing at final conclusion the basic datum, or what Dewey calls the "island of confidence" from which, then, in your demonstration of the validity of that answer you may start, thus attain a true tautology; and thus all non-evidentially determined value theory necessarily is a result of the predilection of the answers to be attained to particular social problems and/or personal problems. I would dare say that no such formulation ever emanated from the so-called "inherent propensity of man," or from an unfertilized original egg. Formulations are bred by the experience men have in the problems of actual human relationships and thus, for example, men constantly are making God in their own image.

In terms of applicability, the criterion required cannot be of that character. Nor can it fit the second category, which does not rest upon either the presumption *[of teleology]* involved in the first category or upon an evidentially established datum in-and-of-itself, or what we call independent identification, which simply means quite the contrary of the necessary way of saying it in the first instance. That is to say, in terms of relationships with other phenomena rather than separate and apart from them--subject to identification other than in terms of itself. That is to say, explanatory in excess of a truism. To say that something is itself doesn't explain anything; indeed, it does not even identify anything, if identity is to have any other meaning than a truism, and if so, then rational inquiry is beside the point.

The utility theory of value falls into the second category and is presumed to be evidentially established by virtue of many observations of its actual involvement as the motivation in human behavior. I suggest, however, that if you will follow our discussion of it in either direction from here back or from back here, you will find it involved in the same tautology; that it may be used--not by virtue of its identification but by virtue of the character of the evaluation theory--to prove anything you will care for me to prove. Unlike the category one instance I mentioned a moment ago, *[with]* utility theory the character of the answers secured through effort at applying it is not determined by the character of the concept of utility, as is the case in category one. In the case of utility--and this is its unique advantage, especially for propaganda purposes, to say the least--anything can be proven with it. Not by the determination of the basic datum, but by the determination of how that basic datum is determined, of how it is compared in terms of more or less as an attribute of alternatives among which choices have to be made, so that if we are to identify significance in terms of resolution *[of problems]*, ... it involves something other than human discretion in terms of predilections or wants or desires.

Then it seems to me that it necessarily follows--and in human history has followed--that neither category permits any possible recognition of significance at all--none at all except as a mistake in human affairs may serve as an object lesson in what not to do. No problem--not

even the minutest one--was ever solved in either fashion, category one or category two. The applicability of the infinite variety of theories of value in category one, and the applicability of the infinite variety of theories of valuation in category two--all separately and cumulatively and combinedly--have exactly no significance as significance is conceived in terms of resolution of real problems. The only significance they could have is the same significance that a disease has: it itself constitutes a problem. It is not the criterion of judgment. It is not the way of going about comparing items, alternatives in terms of good and bad, and cannot be. And so the criterion of judgment must be quite otherwise. We are forbidden, in honest comprehension, these two categories.

Then what is the criterion? We have said that if we are to [*keep*] our investigation in the area which could have some significance, that is to say, could have some applicability to real problems, then we are forced to find it in terms of applicability, applicability being spoken of here as meaning successful resolution of problematic situations. And I should like to spend a few minutes on the identification of successful revelation or clearer comprehension of the criterion itself.

I have presented the position that problems can be categorized any number of ways, and that one aspect of all problems--which you could use as a way of getting at what we have heretofore spoken of as real problems and imaginary problems--is, in real problems the inclusion of factors other than those which are subject to predilection. And I'm not sure that all problems are not of that character. But I'm not sure that they are either. At least we know there are problems of that character.

And when we say the successful resolution of a problematic situation--the situation including items other than and in addition to purposeful human behavior--then it necessarily follows that, in such problems, resolution would include an adjustment of those things which are within human discretion, because the solution of a problem means human behavior, doing something about. Many problems would disappear with the disappearance of non-human factors that are not within human discretion, but we do not speak of such instances as the resolution of the problem. More properly we would speak of it as the disappearance of the problem.

What we mean by the resolution of a problem is purposeful human behavior. You don't solve problems by accident. But with the categories of value theory, both in the sense of valuation and in the sense of value being arbitrarily determined, you can't resolve a problem except by the sheerest accident, that is to say, lacking comprehensible relationship between items in sequence--that's what we mean by accident. There is no correlation in terms of conscious comprehension. Example: disease. [*Its resolution*] has to effectively correlate the items in a particular sense--irrespective of predilection, of the mores and folkways, or what have you.

And it is that particular sense that characterizes the character of value. The nearest that we have come to it in philosophical consideration, I think, is called instrumental correlation, which has the distinguishing characteristic of inescapability. Not only the distinguishing characteristic of inescapability, but the distinguishing characteristic of continuity in the sense of continuing interminably, without termination. And also a third attribute peculiar to it, that the continuity is not situational. Things that exist are not the same things that exist later, but the character of the relationship continues to exist. Instrumental correlation. And it is on that score that the situational picture in getting at dynamic explanation, as we usually say it, is avoided. It is thereby that we have avoided the problems with taking cross sections in examining process and getting them as close together as you can in the hopes of explaining the cross section.

Getting cross sections closer together is the same situation as the hare and the tortoise. The hare never catches the tortoise, you see, by simply setting up your analysis with conceptual

tools which give you intermittencies. The old Greek argument about every time the hare moves as far as to where the tortoise was when he started moving at any particular time, by that time the tortoise would have moved some distance. The hare is going twice as fast as the tortoise but he never catches him, because ... you reduce the distance between them to an infinitely small distance. However small the distance, if it is positive at all, every time he gets to where the tortoise was, the tortoise has moved so the hare never catches him. That's the kind of situation this kind of theory gets you into.

That isn't the way the social process operates. That isn't a process. It has a use, but it doesn't constitute explanation. [*Comparing cross sections*] doesn't explain anything, of course. But it might help you begin to locate the area in which you might find explanation. When you attain explanation, my point is, it has to be in terms which do not postulate [*intermittencies*] if it is to be continuous--which is a peculiarity of the instrumental concept of continuity. [*Cross sections cannot be situational or occupy time; they must be in terms of process to maintain continuity.*]

Now note the confusion that frequently has occurred in social analysis--and this is particularly true in economics--trying to explain a process through getting these cross sections close together--J.B. Clark. The reason is that efforts to apply either of the two categories of valuation or value theory leave nothing except this study and a very close juxtaposition of whatever these things are [*that you measure. Like a motion picture*]. Thus you "see" motion, but you don't explain anything.

The confusion about continuity that I would like to get rid of at the moment is the notion that simply, first, anyone who has looked at the philosophical problems much--the real, practical, fundamental problems involved--is sometimes thinking as John Stuart Mill did, of continuity as meaning lasting a long time. Then one of these cross sections may be true or untrue, depending on how long it has lasted--a situational pattern of human relationships, of institutions. If it has lasted a long time, [*it is assumed to prove it is more correct--more instrumentally specified than ceremonially.*] Not at all. [*Lasting a long time*] has nothing to do with continuity in the sense that I am trying to identify it.

Stability is more nearly the correct symbol for what they call continuity. That a pattern lasts a long time does not prove anything; long life doesn't prove validity. Long life is not continuous with anything in the ceremonial sense. And the relation between the ceremonial specification and this non-applicable value theory in the two general categories I indicated is pat, complete, and inescapable. There is no other way to get an explanation of [*ceremonial patterns*] except through non-evidentially determined criteria. That is what makes it so easy for the mores principle to take on the corollaries it has taken on, and to creep into the very carefully thought analysis so easily, even into our thinking and behavior. The only thing continuous about this process is that ... there is change, which we have known forever. [*They*] say the only thing we know for certain about anything is that it changes; then they proceed to say that it changed from here to here, as if they said something significant. But the significance is only in terms of description, not explanation.

The factors must be set up, if they are to attain continuity in the instrumental sense, as non-intermittent in any sense, right on through. And that has been our experience. The actual run of human experience has been non-intermittent fact. You don't experience, and then not, and then experience and then not. You experience, period! All the time. That's why, you see, you can't escape the consequences of your own behavior. If you could do that, then you could wipe them out in between, but you can't do that. The best thinkers on the matter have been getting at that ... for two or three thousand years: your sins will find you out, as it were. All the great religious thinkers have been getting at it; there is no in-between space.

So our problem is to get value comprehended which permits continuity in that sense. Continuity and process--some sense of process, never in terms of situation. Situations vary, we know, and looking at these cross sections has revealed that they change and are different.

lecture twenty-two

Last time we noted that, in order to attain continuity, the theory of value must be set up to be processional and not situational. It must be, so as to identify it in terms of progress rather than in terms which are useful in identifying a certain situation, because situations change. The theory of social value has to be in terms of the social process, and it has to be applicable to social problems that arise in that process.

And this is the point of the distinction which is frequently made in relation to ultimates, with the semantic difficulties *[of distinguishing ultimate in the sense of continuous with the universe of application from ultimate in the sense of final cause]*.

In one sense of the word, there are ultimates in the sense of continuing factors, continuous with the universe of identification. The specification of the universe is itself the identification of such continuing factors. If you can separately identify anything, you have thereby come into comprehension of continuing factors, things which distinguish it and thereby identify its limitations chronologically and otherwise. So, to say, "There can be no theory of this or that" is to deny that "this or that" is a separate identifiable or conceivable item. For example, to say that there can be no such thing as human nature is to say necessarily that you can't separately identify human beings from other phenomena. And of course you can. So, there are necessarily ultimates in the sense of continuous with the universe of application or identification.

The controversy, however, is confused by imputing something of that sense to another sense of ultimates which ..., so far as our experience is concerned, can't exist. And that is the ultimate which you might characterize as final, in the sense of final causes. Now, in the first sense, there is a finality involved. But that first sense allows correction and situationally variable specification. In the second sense, *[the finality is something outside of our experience, outside of]* the process we call the universe.

Everything we know about human behavior occurs within the social process and has come from our experience within that process. Those are the facts which are to be explained in social theory, and no one has ever presented one item of evidence that he has had social experience outside of that process. No one has ever presented any evidence of any kind that he has received comprehension of that process other than by looking at that process.

There are indeed many claims to revelation about that process. Unfortunately, it seems to me, most of these have been figures of speech which someone with considerable insight is using to explain what he has observed in the social process, but which the naive have taken literally to constitute the specification of that process. I repeat: no one has ever received, so far as we call tell, any evidence about the social process from any other source than the social process.

In that sense, then, there can be no teleological determination of that process. The locus--where you look because of where they are--of the evidences about the criterion of judgment, about alternatives arising in that social process, is within that process. It cannot be anywhere else. It is inconceivable that it could be anywhere else. *[But]* it is very easy to involve ourselves in the assumption that value--the criterion of judgment--of necessity lies outside of the process, that it cannot serve as the criterion of judgment unless it is outside that process. *[That assumption]*, when it becomes available, whatever its shape ... working down toward applicability to particular problems, is some kind of teleology. That's what we mean by teleology: an outside-of-the-process directional determinant or identification.

I am willing to lay the charge that most so-called instrumentalists are involved--particularly in the more complicated areas of human experience such as aesthetics--in that imputation. Though stating and comprehending quite clearly what I shall here call the instrumental theory of value, they nevertheless proceed to work with the assumption that it isn't a theory of value; that, in order to be a criterion of judgment, it has to have its locus outside of that process. And the reason for that, I think, is not clearly understood, and I should like to explain what seems to be the reason.

In the operation we call thinking, quite clearly you don't get anywhere with a truism except an exercise. For example, to define a word you have to use other words than the word you are defining. A good dictionary never says a mouse is a mouse. It says what a mouse is with some other words. The other words may simply be saying mouse in several words instead of one, and in a sense that is what should be done. In a sense that is how we come to identify what a mouse is--through several looks at the thing the symbol stands for.

In that same sense, independent identification of a universal criterion of judgment ... within the process to which it is universally applicable, would seem to be necessarily involved in saying that a mouse is a mouse. It is antipathy toward that previous position, which is simply a matter of not having thought through the matter very well. That little simple thing has permitted us to succeed in not looking at the problem directly. It is through that gate--and I have observed people over and over again running in and out of that gate--that we have been permitted with some semblance of self-respect to get involved in activities which successfully camouflage the issue at hand.

That is why I said to the class this morning, if you want to save your face, talk about the words instead of the problems. Raise questions about the words. Of course you won't solve the problem, but you will indeed save your face. And of course here, we have no faces to save; we shan't consider them worthwhile in our present exercise.

In the second sense, there can be no outside-of-the-process locus of value. If value cannot be located within the process, then it cannot be located. There can be no such thing really as value. It would have to be a figment of the imagination.

STUDENT: *"There seems to me to be a paradox involved here. Having said in the past that the social process is constituted by a complex of institutions ..."*

No, I didn't! If I did, I ought to be bumped on the head.

STUDENT: *"All right, then of what is the social process constituted?"*

Of the interrelated activities of human beings, which are carried on through institutions.

STUDENT: *"Then the social process is constituted of interrelated activities of humans ... and, since the locus of value is within the process, then value comes from the interrelated activities of human beings?"*

We might quarrel a little bit about the "comes from," but I'll go along with you. That is correct, but there is no paradox involved in it. The institutional structure is that through which the social process is carried on. It is the specification--in its least accurate form by Dr. [Robert H.] Montgomery--of the rules of the game. An institution is a prescribed pattern of correlated human behavior, and no one has ever said it better than that that I know. Why? Because you can't hold to a teleological construct and admit that is what institutions are. You can't even admit that things we call institutions exist therein. Because they then become human inventions, and there are teleological recourses involved.

....

I used the examples of Maine's Ancient Law and Darwin's Origin of Species, in which the very crux of the problem we are discussing was made so plain in Maine's work that to some modern scholars--I mean in the last twenty years--it hurts, it slaps you in the face. *[When published,]* it didn't cause more than a ripple, while Darwin's Origin of Species, though it wasn't even concerned with institutional affairs directly, caused a turmoil. It was concerned with genetics, of how it comes about that species were differentiated. Yet it raised quite a racket, did it not? The situation in that illustration now is exactly the opposite, because the evidences are sufficient that we can proceed with confidence in the biological area up to and beyond the point that Darwin acceded to. The reason it then caused the racket--and even bloodshed--is because then biology was still useful as a device for maintaining or attaining a particular institutional structure. It has since been robbed of that function, and now we can talk about it intelligently, I would say. We can talk about it without raising a racket. We can inquire into it without fear.

But try it in law. Try it in the law journals. No one has had the courage or the understanding or whatever it is to try it as yet. But it is coming. There have been hints of it now for thirty or forty years, and every slightest hint of it in the law journals has raised a racket. Maine's Ancient Law didn't even prove the case to him, so he didn't know what he had done. The data he collected--magnificent inquiry--told something that the state of understanding in the legal theory at the time did not permit him to conclude. What he proved is the mores principle in law, and law has always by its bare operations evidenced an outside-of-the-social-process locus of the criterion of judgment. The law is the law! Meaning that it has validity as such, not in reference to the process of which it is a part, but in reference to something else making it what it is, and you can't question that something else. The basic data then become the law, and if that be true in regard to any institutional device, including the law, then the whole of the examination of the utility theory of value, and the whole of social science is pure, simple, palpable nonsense, other than as entertainment value. Then again, all you need to do is to decide what you like, and that is that. Then you don't proceed in the way of science, you proceed in the way of propaganda. Since you know the answers, of what account is analysis? Since you know what the answer is to be or should be, then what you need is to go directly to that answer.

With the scientific method, you discover ends, you bring into view further ends as you proceed. There is no ultimate end ... because the ends you bring into view are situational ends, and there is no "ultimate" situational end within human experience. *[But with an outside-of-the-process criterion]*, since you have no experience with it and can't use reason in analysis, you will have to rely on something other than evidence. And what else in ... prescriptions of correlated human behavior can be used to determine institutional structure? The one other thing: the use of force, and that is what we have been doing. What do you think war is? What do you think revolution is? What do you think the fighting is about? It's a use of force to install and maintain a particular pattern, that is to say, the initiation of the use of force in an effort to determine institutional structure. There is no other use of force with which I am acquainted, or with which I have ever heard of anyone else being acquainted. You can either use science or you can use force, and it is not accidental that teleological analysis always includes the coercive enforcement of the prescription.

....

lecture twenty-three

Last time we were concerned with getting in view the value problem. The character of the theory, I think, is that it has to be in terms which permit direct identification of the *[social]* process, and the locus of the criterion must lie within that process if we are to know anything about it. And if we are here to consider something about which we know and can know precisely nothing, then it seems to me that we are wasting our time. Add to that the realization

that we do, in fact, act--necessarily and inescapably--within a criterion, through the application of a criterion. Then, of course, we are forced to the conclusion that, since our behavior historically has not been simply random--a dance of the atoms--, since there is continuity in some sense other than simple chronology, then necessarily we have been applying a theory of value, and it is located within that social process.

The sense of continuity which we have been looking at ... is not of lasting a long time, and certainly not lasting a long time situationally. But it is in a very clear way cumulatively developmental. And in that attribute, C.E. Ayres finds the theory of progress. I illustrated it this way last time. Suppose you start somewhere, wherever you can pin together the evidences and run [*the development of civilization*] over time this way. [*Each cross section is different from the others*], but is continuous with them in causal terms in either direction ...

Now there is the other aspect of our experience which is non-causal in its explanation. It is really an explanation which isn't an explanation; it is an effort to apply a theory which is inapplicable to the real problems involved, and thus the restatement of the problems as something other than what they really are. And that has found perfect humus--food and form--in efforts to apply the utility theory of value, by virtue of what I said time before last, in the two categories of ways of getting at predetermined answers: 1) through an a-prioristic identification of the theory of value itself, allowing an infinite variety of specifications at that level or of that criterion--and thus in the sense of rational consistency specifying all the answers subsequent to it, since it in itself is situational and its application does not give you direction; deviations from it are bad and movements toward it are good--and 2) the category of a unified and consistent and unchanging--a one-choice--theory of value with an infinite number of theories of valuation. This permits valuation analysis to attain the same answers as in the first category, that is to say, the attainment of answers which of themselves have been predetermined situationally.

It is at this point that trouble develops in the educational process of coming to understand, of pushing that point [*of causal understanding*] out toward confrontation with the problem. [*Our students*] ask us to tell them the answers the first day. You don't do that; our character and nature don't permit us that kind of locomotion. As Lewis H. Haney pointed out [*History of Economic Thought*], we are all in that sense emburdened, equipped with an institutionally determined set of tools and, insofar as we don't have other tools and must carry on the functions for which we use these tools, we use them--or try to.

In that sense, in the second category we have attained the same results with an almost astounding elaboration of the refinement of the theory of valuation. We have succeeded in maintaining the age-old answers, which all along have the major content of being disconnected from the problematic situations where they arise. What has resulted ... is the mores principle and its many corollaries, one of which is that the possibility of culture patterns is infinite. You can find, in regard to any particular function carried on by any particular institution in any particular culture, other cultures which deviate from it in an opposite sense. You have polygamy and polyandry; in their generic relationship they are opposite of monogamy. You have capitalism, communism, fascism, feudalism, etc. with all sorts of institutional structures. There is no limit to the possible variations, and those patterns coexist at any particular time and follow each other over time in any particular physical community.

For the moment, let's look at a particular community over time; then we will look at the difference here of many communities over the same time.

In a certain community--say, Western Europe--you have certain divisions: Greek culture, Roman civilization, feudalism, etc. We say, "the fall of Roman civilization:" something happened here that permits us to speak as if the Roman civilization fell, and then there was feudalism after the falling. Where we can't be very sure, we say "the Dark Ages," indicating the absence of whatever it is that was before and after. Sometimes, the more naive of us speak of a "great

civilization,” and the pictures of it in modern paintings are much in our own image except for the dress style: luxury, fountains, cool water, beautiful maidens, buildings requiring a lot of labor, etc. And right in there the Dark Ages, which was neither capitalism nor European feudalism; the institutional structures were different.

But note that some particular prescribed patterns of correlated behavior are the same. For example here [*in capitalism*] the most nearly sacred institution is private property, while here [*in feudalism*] it is the greatest sin. In a brief thousand years, private property had come to be the foundation stone of civilization itself. And if you don't think they could say it then like they say it now, go read Marcus Cato in the halls of the Roman Senate, and you will find that--as he put it--and as the Chamber of Commerce and the Baptist Church still do--, “The very columns upholding civilization are at stake gentlemen.” Therefore, ending every speech with “*Delenda est Carthago*,” “We have to go kill a bunch of folks. They're getting to thinking they are as good as we are.” The pattern of the total structure is different, but many parts are identical with previous theory.

Now, what fell with Rome? What was different? Well, a power system fell. And ever since Edward Gibbon, the historians have been saying that over and over. But they haven't been saying a “power system” fell as frequently as a “civilization” fell. A particular pattern of institutions was radically changed. Many of the items were used in the subsequent pattern, or were current at a subsequent stage. We say that with the disintegration of the Roman authority, the Dark Ages came into existence, and the German communal villages which had preexisted, which were coexistent with this but were very different in institutional structure, developed into a feudal institutional structure.

What happens when you change civilization in this sense? Items like architecture might be very different, the family structure might be less different. But a major difference is the theory of valuation. The way we now analyze the development of western culture--the articulate and erudite writing of the community--it is the utility theory of value all the way through. But there are all sorts of different theories of valuation. These discontinuous changes come from the shift in the *de facto* exercise of coercive authority. All of you are acquainted with events that occurred in that area: how the Roman military machine went to pieces, in the sense that it became a bunch of gangsters on the one hand, and a non-participating population on the other. In Rome itself, there came to be what historians generally speak of as the mob, that is to say, the Roman people. The Romans had learned to live by predation rather than production, and they continued to do so for a long time. Then, in an effort to maintain that situation, there developed a whole galaxy of problems; we would call it unemployment. The Nazis called it the German army--a non-participating group, the mob.

And when the so-called fall of Rome came in the fifth century, it wasn't those barbarians coming in and taking over Rome, was it? Who was it [*defeated*] Rome at the so-called fall of Rome? Wasn't it [*a barbarian who, with his army*], had become Romans? They were the local political machine, they ran the army, they were professional fighters.

It got to a point for a lot of reasons, including the continuous raping of the provinces and non-participation in Rome, [*that local leaders didn't care who ruled in Rome*]. The local boys began to find ways to circumvent successfully the powers sent against them, because they were trained in that machine. They were peasant farmers who had become professional soldiers. And they began to think in terms of imposing their will on other persons, and the way to do that is with the sword. So they became rebels, not in the revolutionary sense but in the political sense. Out of that grew the manorial system. The latifundia became manors.

Now, note, you can't explain that in terms of capitalism. You can't validate their position by conquest capitalistically. [*So they validated it as the will of God. The landlord became landlord by fighting for the land.*] Feudal customs grew out of his possession of armor and

military skill and protecting the voluntarily associated members of his community. Agreements became laws by feudal custom, and were enforced by the Church. If it had pleased God to call the landlord into that situation--especially in the second generation--then what can you ask further than that?

The point is this: the theory of value and/or valuation during Roman times was different than and non-continuous with the theory of value and/or valuation in feudal times. And the institutional structure was discontinuous. The total feudal structure was replacemental of, not developmental of, the total Roman structure. The transition of actual power always results in the use of whatever is available for maintaining the new pattern of power--institutional devices and whatever you can invent; it always requires new inventions. So the structure rapidly becomes very different in its particulars and in its totality. And the difference in the totality is the result of the change in the theory of value and/or valuation [*that accompanies*] the attainment and maintenance of power, coercive authority, enforcing one's discretion over the behavior of other persons.

And that is what, I am afraid, the historians have been calling civilization. They lament the Dark Ages. They indicate that something was light before [*the fall of Rome and dark after.*] But people ate as much--indeed, they ate much more--after than before. They wore more clothing, they lived in better houses, more of them could read and write, they were acquainted with a larger part of the world, they had more leisure time, they associated more nearly amiably with each other, there was much less bloodshed, they had less disease.

What fell wasn't these accomplishments. The instrumentalities of human experience were more and more provided. Architecture didn't go backward, nor did glassmaking nor shipbuilding, etc. These items were continuous. They plowed land after just like they did before, except better. Their plows were better. They didn't build roads, not because they couldn't but because the military use of those roads had disappeared. The police power was exercised locally, not a thousand miles away; not from Rome but from the guy on the hill in the big manor house.

Now note that the theory of value and valuation in technology is exactly the same after as before. It is continuous. While we can characterize the institutions as replacemental, the technology is continuous--the continuous recombination of accomplished knowledge and understanding, and its extension into hypothetical situations in the future. Invention was the same thing after as before. Things were invented for the ends in view, and though it be true that "invention is the mother of necessity," it is also true that "necessity is the father of invention."

Incidentally, Veblen's quip that invention is the mother of necessity seems to me to be a good example of what blocked his accomplishment of the theory of institutions. He [*couldn't*] grant the rationality of human behavior even where its rationality is in fact determined. It is "incontinent habituation." Somebody sort of invents something, that is sort of an accident, and then you become sort of habituated to it, and thus it becomes a necessity. That is true: you like what you have learned to like.

Now note that no matter what, the power transfer results in a change in its rationalization because of the change in its power pattern. In Germany, from the capitalistically useful theory of valuation--the price theory--they shifted in a very brief time to Nazism, to authoritarian rule with a personal dictator determining what is right and wrong. No continuity in this sense. It is replacemental and, therefore, not true. It isn't in conformity with the facts.

And what are those facts? The continuing factors are the locus of value, if continuity means anything other than lasting a long time. Continuity is the locus of validity and the content of civilization. The Greeks had a superior civilization. They knew the arts and the sciences, and they knew how to apply them to the problems of their life. But when we say that civilization fell

when Rome fell, what fell? Not civilization. Not the arts and sciences, but power. There has never been a lost art, with very minor exceptions.

lecture twenty-four

STUDENT: *"There is something which bothers me about the non-developmental character of [institutional change]. I get sort of an inevitable idea out of the supposition that power begets power. Power systems once established aren't modified, they are replaced. And yet you are connoting that once a person attains to power he thereby continues to seek ego satisfaction by virtue of [the continuity] of that problem."*

I'm glad you asked that question, because it occurred to me last time after class that that might have been heard out of what I said ...

That isn't the case. We said something like this. The two kinds of validification and explanation *[are the instrumental--within-the -process and, therefore, continuous--and the utilitarian--outside-of-the-process and, therefore, discontinuous]*. Things that are invented *[in the arts and sciences]* are capable of instrumental correlation with other items in the general social structure, which are carried on through *[institutions]* but under a different theory of valuation. The theory of valuation other than the instrumental theory of value comes after a pattern is sufficiently widely established to permit habitual behavior and defense and attack. *[The non-instrumental theory]* is not and never is the deliberate application in the invention sense. It becomes the common sense and then is articulated, as is always the case with nonscientific theory, and is sometimes the case with scientific theory. The difference is not discernible by virtue of its tardy articulation, tardy to application. The difference is such that scientific theory can and frequently does precede the actual application, whereas nonscientific theory cannot be and never has been functional in that sense.

Thus you will find that, in every field of inquiry which is separately identifiable for purposes of analysis, up to the point of the shift to the scientific theory of valuation and value, that accomplishments become established irrespective of, always contra to, the theory of valuation being used. At that point of shift, however, the situation in that regard is exactly reversed. This is the relationship between alchemy and chemistry; between social studies and social science. We are now right there. Up to that point, alchemists learned a very great deal about science. They learned it in spite of the theory of valuation and the theory of value, not through applying them; not even through efforts to apply them. They learned it through manipulating the items with which they worked. The Aristotelian logic which the feudalists tried to apply to the problems of biology of their day resulted in no advance. Example of monks and the number of teeth in a horse's mouth. What they concluded through trying to apply Aristotelian logic in no sense added anything to science. They learned not through efforts at application, but in spite of them.

Counting things is a scientific procedure as such. It requires setting up a taxonomy of some sort in order to know which things to count. It requires classification and identification. And in looking at these things and counting them, they were not applying Aristotelian logic at all. In the absurd illustration above, there was no need to observe the facts, and they got the wrong answers.

The theories of physical relationships *[are discontinuous]* up to the point of deliberate application of instrumental value criteria. From that point on, never again do you have to start counting the teeth in horses' mouths. You know the theory of genetics, you don't have to count the teeth of every horse that comes into your pasture. Up to the point of deliberate shift from explanation in terms other than instrumental verification, theories are replacemental. They are neither applicable nor cumulatively developmental. From that point, theory always proceeds *[developmentally]*.

Pre-Copernican astronomical theory was useful in invidious differentiation, and caused bloodshed when someone watched the sun. We got telescopes, astrolabes, and lots of things, and the evidence piled up to such a point that the general principles became apparent and were stated. Up to that point, we discovered our stars and planets by searching the heavens.

How do we discover a stellar body today? First, we discover where it is, what its mass and velocity and orbit are, and where it ought to be at a particular time. Then we look at that area until we find it. Almost every discovery of stellar bodies in recent years has been that kind of operation. Why? Because we have scientific theory applicable to finding stellar bodies. How could you do that with pre-Copernican theory? You couldn't. You found them, and then you said something about them in conformity with the criterion of judgment used in that area.

Experience precedes pre-scientific theory, always and necessarily so. Science, therefore, is capable of prediction, and the test of its completion, of whether or not it is science, is its predictable capacities. If you can't predict with it, it either isn't science or it is too immature to handle the problem at hand. Pre-scientific theory in every area of inquiry means, of necessity and inescapably, that its application can't predict anything. But note, from the very earliest social order about which we know anything, persons carry on the social process through institutions and perform what I refer to as the instrumental functions of institutions. There is science involved.

Now the prevailing theory of valuation is still largely nonscientific. We are still arguing about whether human behavior is subject to rational analysis. And I have tried to illustrate for you the impact that scientific method has had on social analysis, and how we strain to maintain the old answers while admitting science. *[Throughout human history]* instrumental functions have been carried on, and by virtue of the character of the case they cannot be carried on under any other kind of comprehension than the instrumental criterion. And that makes our practice advance a little, because people keep counting teeth. Nevertheless, the articulate and accepted theory in social analysis has always been utility. Lack of applicable theory explains the sterility of social analysis throughout history.

Economics became known very early as "the dismal science," and, of course, it is far and away the maturest of the social sciences--in the sense of elaborately developed theory. Economists keep counting things, but they can't get answers, or predict anything, or solve problems.

The father of modern economic science, William Petty, went out and counted things. Then he set up judgments--Political Arithmetick, he called his book--trying deliberately to get science into the analysis. But he confused science; he associated it with things you can count. He knew things in a sense different than the scholastics knew. Francis Bacon was pleading for science in physical analysis, in biology; and Pasteur was pleading for a shift in the theory of valuation.

And note that, once the shift is attained, never again is it subject to use for invidious purposes. Before the shift, solutions were attained irrespective of theory, and frequently in spite of it. That helps explain why many institutions are quite clearly non-instrumental in their function. They have been peculiarly amenable to these general theories of valuation, useful for invidious differentiation, whether useful instrumentally or not. But the instrumentality keeps getting bigger and better.

Europeans frequently speak of Americans as vulgar because we talk so much about the tallest buildings and the biggest ranches, etc. Well, we are vulgar in a sense. But there is more than an accidental connection of validity in that "vulgar" talk. More and better of the means of life is the real validity involved in that kind of assertion. And you will find peoples who have not found any way to work out their major problems, rationalizing their own ineptitude, their own "less and poorer" by calling it *[culture]*. Frenchmen today call Americans vulgar, saying they

“don’t know how to live.” Phooey! They may know how to live, but it is not because they don’t have the means of life. .. They talk about the noble existence of the peasant. Of course, the bedbugs eat him up at night, his food gives him the colic, he is illiterate, vulgar and obscene, and dies by the time he is fifty. You may have ample means of life and still be vulgar, but it isn’t because you have the means of life that you don’t know how to live.

At the point where a community takes a deliberate decision to investigate its social affairs scientifically--in terms of its instrumental function, just like the physical sciences--from that point on the relationship between theory and practice, as it were, reverses itself. From that point on, the general theory constantly is applied and is applicable, depending on the accuracy and maturity of the theory, not on the character of the operations. From that point on, it flowers.

Our knowledge of man--from the dawn of written history to now--occupies just the last two minutes of a twelve hour clock tracing the world’s history. Only minutes ago he learned to apply the instrumental theory of communication. When he reached that point, he started to solve problems very rapidly. Just now we are beginning to struggle with social theory in those terms. We have been fooling around with it in the shadows, but deliberately for a couple of hundred years. In the Age of Reason, we decided to do it that way. We didn’t know enough psychology and anthropology to understand the character of our basic data. Now we do, and the challenge [*to culture*] is being made.

Count the automobiles in America today, and look at the auto production capacity. You find no synonymy. No matter what the firms and the price theory of valuation say, we know we can make more cars than we are making. The [*Second World War*] demonstrated it to us, as the First World War did. But we still say, “Supply and demand will work it out to the maximum.” We know that the market does not solve it. And in America, we have known it for 150 years, and since Veblen we have had the courage to say so. Now we are demanding that war and unemployment be whipped. We are demanding to have the experiences which the arts and sciences make possible, and we will not take no for an answer because we can already see the criterion of judgment.

And, incidentally, the articulate realizations come out of America by virtue of that peculiarly fortunate [*frontier*] experience through which the American people went. It is struggling out through philosophy and the social sciences, and is now ready for articulation. It has been a rough go, has it not? The whole world has condemned that kind of thinking because it does violence to all their [*traditions*].

All “isms” are equally nonsensical, in the sense that they are non-significant, non applicable. Scientific knowledge gives you that particular advantage of the possibility of [*application to and understanding of*] the basic continuing factors in human experience. It gives you the possibility of sophistication.

The scientific concept of value is seen to be in terms of process, since the whole of our experience has been with process. To be a true concept--to be in conjugate correspondence with its referent--it must display the attribute we call continuity. Therefore, to be a valid concept, we must bring our ideas into correspondence with the evidential facts of the process--the only uniformly identifiable continuum in our whole social experience, the causally determined sequence of events we call the social process.

So it is in that process itself that we can correctly identify the locus of value. In your reading of C.E. Ayres, you will note that it is to this point that he carries his search for the same thing we are in quest of here. But we will have to go beyond that. Identifying the locus, or where it is, does not identify its character. The locus, the social process, may be gauged in two ways: 1) direction and 2) condition.

In regard to direction, we have seen that this concept may be and is used in the sense that judgments may be and are made with reference to whether the process is towards--i.e.,

directional--or away from, a particular pattern of invidious differentiation, that is to say, a particular institutional structure within which the process is carried on.

But in this instance, the structure must find its validity outside and irrespective of the process; and to attain such a separate identification, the structure must in fact be independently determinate of the remainder of the process. On this score, all the evidence proves, I think, that the character of the process and the institutions are not independent but, in fact, related; two faces of the same process. And not only is direction so identified invalid, in that the referent for direction cannot be established in fact, but the criterion of judgment is devoid of truth, in that the referent for the idea is in fact discontinuous: the institutional structure itself and the constantly changing social process. So we must disregard, or at least lay aside as untrue, the direction concept as we have identified it here as a criterion of judgment.

The other way to gauge the social process--the condition--we may use to identify how efficiently the process is carried on or is proceeding. But, here again, the referent we seek is not yet specifically identified, for condition also can be conceived in two ways:

1) As a degree of efficiency in maintaining or attaining a particular pattern of invidious differentiation--a particular institutional structure--and this criterion can be applied to the whole or any part of the process. But this concept of the criterion of judgment displays all the difficulties of the direction concept; it is, in fact, fundamentally the same concept, and those difficulties are fatal. Hence, efficiency itself does not end our quest for a direct identification of value.

2) As a non-invidious or instrumental judgment that can be applied to any part or the whole of the social process: how efficiently the non-invidious functions of the process are being carried on.

Immediately you will remember that that is the very aspect of the social process which we have identified as the continuum, which does not change in character, only in degree or magnitude. And you will remember also that it is this form that is continuous, and necessarily so; but you will also note that it differs from the other concept of how the condition or the efficiency concept can turn. It differs from the other not in its universality or possibility of application in the universe, but in the fact that it is continuous in the sense that its referent maintains its same character. And, of course, in the non-differing aspect it too can be applied to any degree of any art at any time, but it can do so without changing the character of that with which it purports to be in conjugate correspondence. It has real and uninterrupted continuity; its referent is continuous with all the evidence, it is continuous causally with all that is concurrent with it, and what can possibly be conceived as succeeding over time is conceived only as causally continuous with it.

Hence, in fact, we must say that this concept has continuity and applicability throughout the universe of its identification. We must conclude that this concept of the criterion of judgment of social value satisfies all the requisites of truth: it is true not only by virtue of the impossibility of anything else fulfilling those conditions, but also by virtue of the positive identification of that fulfillment. Hence, whether your proof runs to the matter of exclusion or independently of that, you are forced into accepting the same referent into the identification of value as instrumental efficiency. It is that simple.

On that positive side, looking at the run of the facts drives us into that position. Fundamental social value cannot be anything other than instrumental efficiency, because with anything else, the very process being judged ceases to be, and all value in it ceases to be. Continuity becomes a meaningless sound, and truth becomes a lie.

....

The area of discretion in social problems is limited to institutional structures; answers to problems take the form of institutional adjustments, making choices of how to correlate human

behavior. The given data include the theory of human nature--individual psychology--and non-human factors--physical facts. Facts display no contradictions or discontinuities in causal terms; only ideas display discontinuity. Institutional adjustment means choosing another way of correlating behavior from that displayed in the problematic situation; otherwise the problem remains. Choosing is done by application of a criterion of choice.

Scientific analysis cannot proceed without resolution of the value problem. Social analysis requires identification of inclusive and continuing factors in the social process, and having in view hypotheses about purposeful behavior. Any analysis which assumes all of the existing institutional structure is without significance.

lecture twenty-five

.... And so this concept of value--the criterion of judgment--satisfies all of the requisites of truth. Value is the kind of efficiency which I refer to as instrumental. It can be shown quite definitely without exception that at the attainment of [*instrumental understanding*] in any area of investigation, any area of problems envisioned by human beings, from that point on that part of the content of human experience has flowered in an astounding fashion. It was that about which Madame Curie was speaking when she laid out her prayer for the human species in terms of science. It was that about which Thomas Jefferson spoke.

So the cold hard facts are not so unpalatable; they are rather glorious things, facts. But that is one fact which has been difficult for us to get our hands on. The difficulty is not complexity in the ordinary sense of requiring much practice; the difficulty as always lies in the dislocation occasioned to preconceptions of things we hold dear. We have been cruel because we have been ignorant, and many of our truths appear as lies and many of the lies we live appear as truths because of the structural concept of the criterion of judgment. Since there is no escape from the cold hard fact of the [*instrumental*] criterion of judgment, in that the incidences of problems remain until that criterion is used, and since we have solved many social problems, it therefore necessarily follows--and is historically revealed--that that is the criterion of judgment we have used, though we have tried to use many others.

lecture twenty-six

STUDENT: [*When you have a number of alternatives, how can you tell which is more or less efficient?*]

.... That question arises out of a number of things. [*It comes*] out of the whole development of the analysis of the scientific method which has been circulating in the community since the 1870s and in some degree prior to that time. You find its essential structure in [*Francis*] Bacon's [*Advancement of Learning, 1605*]. What it does is identify science with counting. And, of course, Bacon was not that naive and meant "more" or "less" which is correctly conceived.

You have to have a concept of more or less which, in a sense, is going behind value. The form it has taken in social analysis--and particularly in economic analysis--is the theory of valuation. The way it has been associated with counting has been the notion that if an [*item*] is subject to mathematical handling, then it is subject to scientific method, and if not, not; or that numerical identification permits accuracy, whereas other kinds of identification do not; or if you can conceive something to be more than, or more like in any sense, it is therefore subject to mathematical comparison.

The form it has taken in the economic literature is through the utility theory of value and into the price theory of valuation, in which you get a way of numerically identifying something which itself is not subject to numerical identification directly. Thus the significance of price

theory beyond business administration price accounting. That is to say its economic significance, without which it would have no significance at all.

The next step in the prevalent discussions of the scientific method immediately involved the assumption that, for comparison of an attribute in one thing as compared with the same attribute in another thing--value, for example--, you necessarily require a unit of measurement; not necessarily numerically identifiable, in the more advanced discussions, but at least comparable in some quantitative sense. Then the real assumption that that unit, or that "moreness or lessness," is at least subject to common statement, common caption, common attributes. And that assumption is the error.

In science, there is no common unit of measurement for efficiency in continua comprised of different items, events, and/or objects. And especially in continua which have no common immediate functions. Example: compare the efficiency of a telescope with a combustible engine. There is no unit of measurement for the telescope.

All things have the attribute of value, and thus are subject to comparison in value terms. How do you know, then, if one is more or less than the other? Every problem specifies the units of measurement. The facts of the problem specify the theory of valuation applicable to it. It is from those facts, and reference to relationships of those facts, that that unit becomes available or not available. Its availability--either actually or possibly--has nothing to do with the validity of the criterion. The criterion of judgment stands on quite other grounds, irrespective of the particular items which specify the particular valuation operation.

.... It is quite a legitimate question for a community to ask, "Do we need a telescope more than we need a hydroelectric plant?" How do you form an answer to that? There is no unit of measurement. It is a function of the facts which comprise the problem. There are a great many units for which we have no measurement: beauty, roundness, straightness.

STUDENT: "*How do you apply "the" theory of value to music?*"

Thank you. I wish I had thought of that. It is the best example of what I was trying to say. We don't have a unit of measurement, any more than we do for roundness. Music is an example of the application of aesthetic theory which is peculiar in the sense that it is separate from all other applications in a very clear-cut and understandable way. Most of the fine arts--which are applications of the theory of aesthetics--have common attributes in sufficient number that you can sort of compare them. But you can't compare music to anything but music. There is some sound/rhythm aspect of music in verse; a little. What does music tell you about? Poetry has other attributes than sound; it tells you something.

There is no unit of measurement of social value. But we have to make judgments on it. There are times when, individually and as groups, we have to make judgments as to whether we require more music or more telescopes.

lecture thirty

Our last discussion was concerned with the principle of recognized interdependence. I tried to point out what seem to me to be some of the difficulties and confusions in understanding that principle.

Developments in technology bring about problematic situations in the institutional sphere in the social sense. Such developments cause what are frequently referred to as "changing conditions." It is a different world than it was twenty years ago. The technologies have changed, noticeably, and they have brought about conditions which we call social problems.

Not only is technology determinate of social problems, in the sense that it creates such problems. It also is determinate of the solutions to such problems, in the sense that it constitutes

the basic data which must be taken as given in social problems. Note that I do not say that technological factors determine the structure of institutions in their instrumental aspects or their ceremonial aspects. They determine the problems. Technology has been subject to the instrumental theory of value in a fashion which has permitted it to be expanded and developed in an amazing way in the last 100 years, at the same time as social analysis has been subject to efforts to apply non-instrumental criteria.

....

The most significant word in the second principle is "recognized." The thing that most often confuses us at this point is that scholars seem to think that adjustments can be made completely outside of and irrespective of the recognized interdependencies. For example, most students presume that if a group is forced through coercive power to behave in their interrelationships in ways contrary to what they recognize ought to be, that that in some sense does violence to this principle. No, it does not. [*Coerced behavior*] does not bring into consideration the determination of how that recognition may be brought about, which involves the ceremonial-instrumental distinction applied to this item. The simple fact is that you literally can't correlate your behavior in a fashion which you do not understand. It need not mean that you approve it, although most frequently a majority of persons in any community approve the established order. We like what we have learned to like.

And that has no correlation whatever, Marx to the contrary notwithstanding, to its incidences upon the persons whose opinions are in question. I suggest, for example, that the most conservative element in American society today is the organized labor group. They are most reluctant to envision any change in the more nearly fundamental structure of our community. Their almost sole effort as a group is to try to use it for their particular benefit, as compared to other members of the community, in the same way that any other business trading group envisions that same process. Yet I think almost all members of that group would agree that labor is not peculiarly advantaged in our structure, that if anyone gets the raw end of the deal, it is labor.

So I repeat that it is not true that there is any correlation between the support of a particular pattern of institutions and the advantages gained therefrom. The American Civil War is another example that those who are least advantaged most vehemently support the system under which they are least advantaged. The war was fought by the poor whites of the South; and if anyone ever got a raw deal in history, it was the poor whites in the South. So is the Spanish-American War. It was pretty much a commercial enterprise--witness the fact that the President of the United States had in his pocket complete acquiescence to all our demands when he went before Congress to ask for a declaration of war. It was not those demands that we were after. Yet the business community was not notable for its sacrifices in that endeavor. The men who rode up San Juan Hill were not big businessmen. They were the Rough Riders, the Teddy Roosevelt type of people--the boys who rode the range and drove the railroad spikes. They were the type that made Roosevelt president when they began to suspect the war's commercial character. They were the guys who first supported the war most vehemently, not those who were peculiarly advantaged by it. My point is that there is no correlation whatever between real economic interests and active conscious support of particular institutional patterns.

As I tried to make clear in our discussion of the principle of technological determination, what determines the pattern of active behavior in correlated fashion may come from either of two sources: understanding or coercion. It comes from both. In so far as behavior is invidious in character, it can come from no other source than coercion. There is no instrumental explanation of invidious differentiation. What Thomas Jefferson said in his most famous dictum is literally true: all men are created equal. And, for that matter, all men die equal. The only way

you can enforce invidious behavior is through coercion. If you can't explain it, what else can you do?

And that is why no community can long tolerate the absence of theory, applicable in the sense of explanation of its institutional structure. Lacking explanation is the same thing as saying there is no validity in it. As long as people have the capacity to reason, validity is inseparable from purposeful behavior. You have to validate your behavior individually and as a community. You have to explain or recognize that you have no reason, that you are not really human. And we know better than that. Even with the ultimate of coercive power, you still can't make people correlate their behavior in a fashion unless they understand that fashion. You can't play football unless you understand the rules; whether you think they are good or bad, you have to understand them. [*The Bolsheviks tried to enforce*] communism on the Russian peasant right off the bat. And he didn't understand and they didn't get any production. He didn't know how. And that is always the fatal danger in trying to impose an institutional structure on anybody as the only way to carry on a particular function.

It is in that sense that the principle of recognized interdependence is literally, universally, and uniformly true. It still is true that you can correlate behavior on quite other grounds than coercive authority. And the question of coercion never enters in the other kind of correlation. Coercion doesn't make sense, unless somebody goes crazy. The only legitimate use of police power in the instrumental sense is protection against irrational behavior. In the ceremonial sense, of course, you can't do without police power in quite another sense.

So it is that the immediate specification is a pattern of recognized interdependence, which may be brought about either by understanding or coercion or any mixture of the two. They frequently conflict. The preferences of those in the possession of coercive power-- (and it seems to me that the most pervasive and the most persuasive coercion can be exercised through control of the economic process; it takes the least manpower that way--you don't even have to have an army, just cut off their income, or make receiving income a matter of conforming to certain patterns of correlated behavior)--those who really determine policy, may differ from the understanding. What happens when those two come into conflict? A great many things. So long as the non-choice determinants of the problem exist, the human incidences of the problem remain and the prompting toward resolution remains.

There is no escape--by whatever application of whatever power--from the human incidences of problems. Especially economic ones. It just happens that we can endure loneliness or anger or any other illth longer than we can abstain from eating. That is why the economic aspects of our problems are most frequently in focus. People can go along for generations not belonging, being lonely. What they do in that case, of course, is create patterns within which they can belong. If the prevailing structure doesn't provide it, it comes underground and grows up. They develop institutions of their own. The unemployed do it. There is no escape from the continuing incidences, and thus you will find sooner or later successful protrusions creeping into the pattern which theretofore was completely ceremonial, thus breaking it up.

There is a compulsion toward progress, and I suggest that the whole of human history bears out that thesis, and thus fundamentally, optimism is the correct position. It is in fact true that you can't live anyway without being optimistic. You can't survive without it. And that is when they accuse you or me of being a "dreamer"--when we're being optimistic.

If you are a student of social science, and thus your attention is constantly brought to focus upon the problematic aspects of the social process, it is very easy to get pessimistic about the deal. All those problems--and they are there. But human progress is contained in their resolution.

4. lecture notes from Marc Tool, 1950

Normative-positive distinction

_____ Current social science inquiry is emburdened with this distinction. There is a tremendous fear of going beyond it. When it disappears, there will be no way of validating a particular institutional structure. *[Accepting this distinction means that]* social inquiry must be positivistic to become scientific. Normative judgments are thought to rest on the notion that value is unknown and unknowable. That position is invalid on grounds that all behavior, other than habitual or random, involves a comprehension of an effort to apply a theory of value. It is in fact necessary to apply a criterion of judgment.

All forms or varieties of the normative-positive distinction *[assume]* a fixed missing middle:

- a) Lord Robbins: "Positive" is that which is observable in a descriptive sense, characteristically identifiable and non-evaluational; "normative" is evaluation, judgmental, an operation of the mind.
- b) Theory of knowledge: "Positive" is "what goes on here," known in a different way than the "normative," which is concerned with "what ought to go on here."
- c) Philip Blair Rice: "Positive" refers to phenomena that are factual or evidential, although agreement on evidences may differ in comparative estimations. "Normative" refers to the privacy of direct observations. He distinguishes between the public and private character of direct observations. "Normative" refers to, or is grounded in, subjective knowing, personal feelings as evidences.

A common attribute to all sets of distinctions is the supposition that any real difference is a difference in causal determination or evidential determination. Positive is causal, normative non-causal. Example: economics perceived as a positive science tells you how to get to where you want to go. Consideration of where you want to go is a non-economic inquiry.

Positive identification of theory of value

Social analysis, if it is to be more than a catalogue of descriptions, must involve the effort to apply a criterion of judgment. It is not concerned with what we would like to have as a criterion of judgment, but rather with what in fact is an applicable theory of value.

Since all purposeful behavior is initiated by a choice from among alternatives, ... the "what is" is a consequence of what someone thought ought to be prior to its initiation. Hence, it involves the application of the theory of value. "What is" came to be by virtue of a deliberate choice, preference, exercise of reason, application of a theory of value.

Compulsions exist in alternative-choosing situations. To see or recognize an alternative *[requires recourse to value theory]*. A common attribute of alternatives is that they seem to offer problem-solving functions.

Personal interests and social interests are different only under the utility theory of value: one member of the community is thought to be able to gain at the expense of the community. Instrumentally, there is no difference between individual and social interests.

In order to attain continuity, the theory of value must not be situational, but rather processional. It must be in terms of social process. Since there is no evidence of experience outside the social process, the locus of value must necessarily reside within it.

Teleology--outside-of-process directionally determined--is claimed by other theories. It is resorted to in order to avoid violating predilections for answers already obtained. Example: Sir Henry Maine showed that law is teleological, with outside-the-process warrantability. It always includes coercive violence as an instrument of institutional structure specified by teleology. Two

ways to get predetermined answers are 1) a priori theories of value, the criteria themselves being situational; 2) a unified theory of value, with an infinite number of theories of valuation.

Since most behavior is not random, and shows continuity other than chronologically, humans necessarily have been applying a theory of value. Ayres's Theory of Economic Progress showed that continuity should be perceived [*scientifically*] not in the sense of lasting a long time, but as cumulatively developmental, continuous in causal terms. Other aspects of human experience are non-causal in character. In the technological continuum, the theory of value is continuous throughout; the locus of validity is in technological connectedness.

There is an infinite variety of institutional patterns over time. There is a replacement of power systems, not of civilizations. In a sense these replacements are not causally connected; they are discontinuous. But instrumental content is identifiable in causal terms in successions of power systems, because such systems carry on instrumental functions at some level of efficiency. The perception of both instrumental and ceremonial functions of institutions permits escape from the seeming paradox between technological and institutional continua.

The causal potency of institutional behavior carrying on instrumental functions is in the validity of the idea, its correctness. The causal potency of institutional behavior carrying on ceremonial functions is in the application of coercive force. Such force has an instrumental function, i.e., to determine who shall have the next opportunity to make choices rationally.

The Theory of Institutional Adjustment

Principles are inclusive and continuous factors of the social process; they permit of no exceptions in application. Situational elements, such as cross-section views of the process, are not continuous.

The Principle of Technological Determination

Accomplished facts exterior to the area of human discretion specify the character of problems and the areas of discretion. The caption "technological" has come to connote not only mechanical-engineering aspects, but all physical aspects. With Ayres, it is still more inclusive. Its central referential content is the things we think of as human contrivances, physical in character. This aspect is the aggressor in bringing on problems.

Institutional invention is not dependent upon technological invention. Since the instrumental functions of institutions are processional in character, institutional invention is cumulative also; it depends upon things in combination. Most inventions are rearrangements of existing parts; some, however, create new items or parts.

Cultural lag is an erroneous concept. It assumes that the structures of institutions are determined by the character of technology. Structures of technology are determined in the same way as structures of institutions. Both technology and institutions are capable of being used instrumentally or ceremonially; both display the same process of invention; and the validity of both is determined in the same way. They are interrelated, but neither determines the other.

The Principle of Recognized Interdependence

The immediate determination of institutional structure is a deliberate decision, constituted by effective agreement as to correlated patterns of behavior among those whose behavior is to be correlated by the structure.

Revolutions fail because they try to stop the social process and start over. All adjustments which are made must be capable of being instrumentally incorporated into the existing institutional structure, so as not to contravene the instrumental functions of those institutions involved which are not considered problematic.

The Principle of Minimal Dislocation

Institutional adjustments are limited to areas which satisfy the requirements of successful incorporation. This principle specifies which adjustments are available. It does not specify which ones to choose.

A community is restricted in progress to the extent to which it does not comprehend the relationship between problematic institutions and the rest of the social structure. The level of enlightenment determines the rate and extent of institutional adjustments which can be made. Therefore, progress begets progress. There is no such thing as a mature economy in an instrumental sense: the more mature the economy, the more rapidly it matures. The attainment of plenty does not reduce the margin between what is provided and what could be provided--the level of employment.

3. "The Origins of the American Contribution."

I

In the first chapter of this inquiry mention was made of the fact that there is something literally unique, distinguishingly peculiar, about the character of the American cultural development. As a consequence of this peculiarity, American analyses of political-economy have taken a divergent form from that of the Western world generally. The function of this chapter is to explain briefly the character, meaning, and significance of this peculiarly American experience. In so doing, some insight and explanation of why American Institutionalism and American Instrumentalism should have developed into their present form will be obtained.

No body of theoretical explanation emerges from a social or cultural vacuum. Nor did what is here identified as the American contribution emerge from a spontaneous flash of insight on the part of its developers. It is a part of the social process as that process has been carried on in the half-continent of the United States during the last 450 years.

What are the cultural origins of American heterodox social thought? How can we account for the development and unique character of American heterodoxy? What are the unifying ideas of the American civilization of which the American contribution is an expression? These are the kinds of questions which require answers at this juncture of the present study.

II

While the effort to explain that which is unique about the American culture has taken a variety of forms, there is remarkable agreement among the contemporary interpreters of this experience regarding the general substance and significance of this American development.

Henry Bamford Parkes sees the "freedom enjoyed by individual members" as the distinguishing attribute of the American experience. This freedom has been obtained, says Parkes, through an early and consistent effort (until the 20th century) to realize "agrarian democracy" as the unifying principle of American social organization."³²⁵

For Ralph Barton Perry the development of the American culture in its literally peculiar character is best identified by the idea of "individualism."

If one were limited to a single word with which to characterize America, one would choose the word "individualism"--used, however, with reservations. If individualism is taken to mean the cult of solitude, or the prizing of those personal traits which set one man apart from his fellows, or are the effect of retreat from the world, then no word could be less appropriate. American individuality is the very opposite of singularity. The people of the United States are highly gregarious and sociable. The individual who holds himself apart, who will not "join," who does not "belong," who will not "get together" and "play the game," who does not "row his weight in the boat," is viewed with suspicion. Americans find silence hard to endure, and if they develop an oddity they make a fad of it so that they may dwell among similar oddities. Their individualism is a *collective* individualism--not the isolation of one human being, but the intercourse and cooperation of many.³²⁶

³²⁵ Henry Bamford Parkes, The American Experience (New York: Alfred A. Knopf, 1947):xii & 9.

³²⁶ Ralph Barton Perry, Characteristically American (New York: Alfred A. Knopf, 1949):8-9.

The capacity of the American to alter his inherited ways of behaving is the major content of the “American Character” according to Denis W. Brogan. “Adaptation ... was the key.”

A family or an individual had to have what it took to survive--and it took adaptability, toughness, perhaps a not-too-sensitive moral or social outlook. The would-be profit-drawers in England simply contributed capital on which no return was or could be made. The would-be gentry unlearned the idle lessons of gentility or sank into poverty or returned to the easier world they had left. From the beginning it was “root, hog, or die.” and the American razor-back hog that the forest bred, with little meat and much muscle, was a symbol as well as a product of adaptation.³²⁷

Confidence in “the ability of human nature to respond to a fair chance” constitutes an essential part of The Promise of American Life says Herbert Croly.

The theory of the American democracy and its practice was proclaimed to be the antithesis of ... European theory and practice. The people were to be trusted rather than suspected and disciplined. They must be tied to their country by the strong bond of self-interest. Give them a fair chance, and the natural goodness of human nature would do the rest. Individual and public interest will, on the whole, coincide, provided no individuals are allowed to have special privileges. Thus the American system will be predestined to success by its own adequacy, and its success will constitute an enormous stride towards human amelioration. Just because our system is at bottom a thorough test of the ability of human nature to respond admirably to a fair chance, the issue of the experiment is bound to be of more than national importance. The American system stands for the highest hope of an excellent worldly life that mankind has yet ventured, the hope that men can be improved without being fettered, that they can be saved without even vicariously being nailed to the cross.³²⁸

“The existence of an area of free land, its continuous recession, and the advance of American settlement westward, explain American development,” says Frederick Jackson Turner. This, the “Turner Thesis” regarding the role of the frontier in American history, finds the peculiarity of American culture in the requirements of successive adjustment of institutional structure.

The peculiarity of American institutions is the fact that they have been compelled to adapt themselves to the changes of an expanding people--to the changes involved in crossing a continent, in winning a wilderness, and in developing at each area of this progress out of the primitive economic and political conditions of the frontier into the complexity of city life. Said Calhoun in 1817, “We are great, and rapidly--I was about to say fearfully--growing!” So saying, he touched the distinguishing feature of American life.³²⁹

³²⁷ Denis W. Brogan, The American Character (New York: Alfred A. Knopf, 1944):6-7.

³²⁸ Herbert Croly, The Promise of American Life (New York: The Macmillan Company, 1911):12-13.

³²⁹ Frederick Jackson Turner, The Frontier in American History. Quoted in The Turner Thesis, editor George Rogers Taylor (Boston: D.C. Heath, 1949):1.

Henry Steele Commager finds that as a consequence of the material character of his culture, the American has a “quantitative cast to his thinking” and is “inclined to place a quantitative valuation upon almost everything.”³³⁰ The “quantitative cast” of mind provides the American with something of a unique habitual mode of making judgments; the American is a “practical” man. Says Commager:

This quantitative cast of American thought was an indication of an intense practicality which extended to most, though by no means all, matters. Often romantic about business, the American was practical about politics, religion, culture, and science. He was endlessly ingenious and resourceful, always ready to improvise new tools or techniques to meet new conditions. “A plaine souldier that can use a pick-axe and a spade,” Captain John Smith had discovered, “is better than five knights,” and on every successive frontier that discovery was the price of survival. The American borrowed readily from Indian or immigrant and naturalized what he borrowed; he improvised jauntily, had little respect for custom, and was willing to try anything. His reaction to most situations was a practical one, and he was happiest when he could find a mechanical solution to problems: the cotton gin, the steam boat, the harvester, the six-shooter, the sewing machine, vulcanized rubber, the telegraph and telephone, barbed-wire fencing, the typewriter, and a thousand other inventions anticipated the day when the American was to be notorious for his passion for gadgets. He was among the first to concede to technology a place in higher education ...³³¹

When the essential content is abstracted from the statements and quotations above, there emerges a triad of ideas in terms of which that which is most unique about the American experience can be expressed. These three ideas are: 1) the idea of social fluidity, of adjustment of institutions in response to new problems; 2) the idea of democracy, of a society in which ungraded men have control over social policy and institutional modification; and 3) the idea of “practical” judgments, of judgments seeking to apply what has been learned regarding new instruments and techniques to the problems at hand.

The significance of the “practical” judgment in the developing American experience is illustrated in the following passage. A failure to apply such matter-of-fact judgments was frequently catastrophic.

Adaptation ... was the key. How many early settlements ... withered away or were swept away by famine and disease! To pick the wrong, malarial, snake-infested, swampy site for the settlement, that was a mistake paid for by the loss of the meager capital resources so painfully accumulated--and often by the forfeit of life as well. To fail to plant the right crops at the right time was mistake as deadly. The early settlers of New England bore in their memories the duty of gratitude to the Indians who taught them the completely novel technique of planting Indian corn (maize), the making of the little mound like a golf-tee, the use of fish as a fertilizer--ways so new to wheat-growers, to users of plows and breeders of cattle. The timing of

³³⁰ Henry Steele Commager, The American Mind (New Haven: Yale University Press, 1950):7.

³³¹ Ibid., p.8.

your arrival on the American coast ... might mean death for all or most of the party before the first crops could be harvested.³³²

That this literally peculiar character of American experience was a product of the interplay of inheritance and environment, of the Old World and the New World, is commonly acknowledged. The development of any new culture is necessarily of this character. But to explain why this interplay should have produced a culture characterized by the triad of ideas mentioned above requires further analysis.

III

Perhaps the most obvious fact to be kept in mind regarding the early history of America is that what is now the United States was settled during the course of 450 years by the largest mass migration of people in recent human history. Somewhere between fifty and sixty million people "pulled up stakes" in Europe and migrated to the two Americas. They brought European ideas, European techniques, and European physical habits. They settled in the course of the last 300 years an area of some three million square miles inhabited by some few thousand nomadic Indians. They found the country rich in natural resources as defined by the then-current state of the industrial arts. Moreover, and perhaps most important of all, they found no well-organized, highly structured society already in occupation. For example, not one acre of the new land was privately owned when the Europeans arrived.

This conjuncture of circumstance provided the European settlers with an unparalleled opportunity and, concurrently, with perhaps unparalleled problems of social and technological innovation. Says Brogan:

They have brought these [European ideas and techniques] to an empty continent and it has taken them centuries not merely to fill that continent, but to create ways of life adapted to a different climate, to a different set of economic possibilities, and to a society held together at its beginnings by imported political and social habits, and only slowly and with repeated crises creating American political and social habits to replace the European importations that, with each decade, wore thinner and thinner like an old carpet. In this process the modern American has been created ...³³³

By virtue of the character of the problems encountered as well as the attitudes of mind which occasioned the migrations, the American settlers produced a society different in kind from that from which they had come.

It is commonly acknowledged that America was settled by heretics and dissenters of all kinds.³³⁴ Some were persons seeking to pursue unpopular religious beliefs; some were seeking more effective participation in the economic process; some were political refugees from the machinations of their respective European communities. That is to say, the mass migration to the American continent was fundamentally motivated by a desire to exercise discretion in areas where such discretion was not tolerable to the established power-systems in the cultures of Europe. The character of the divergency between the European order and that developed in America has been perhaps nowhere better stated than in the following statement:

³³² Brogan, *op.cit.* p.7.

³³³ *Ibid*, pp.3-4.

³³⁴ For a modern statement of the social role of such persons, see Eric Hoffer, "The Role of the Undesirables," *Harpers Magazine*, CCV(December, 1952):79ff.

The European mind had been dominated by a hierarchical sense of order. This sense was embodied most completely in the philosophical and political theory of the Middle Ages; but even after the breakdown of feudalism and the repudiation of the scholastic philosophy, it continued, in one form or another, to permeate the consciousness of most Europeans.³³⁵ Human society was regarded as the reflection of an ideal order derived from the will of God and fully embodied in the cosmos. And the life of the individual acquired meaning and value insofar as he conformed with the order of the society to which he belonged ...³³⁶

The fate of these ideas when they were imported into America was as follows, continues Parkes:

The first immigrants to America brought with them this sense of order, but in the American world it gradually grew weaker; it did not remain a permanent part of the American consciousness. Coming to a country where there was no elaborate social organization, and where the individual must constantly do battle with the forces of nature, the American came to see life not as an attempt to realize an ideal order, but as a struggle between the human will and the environment ...

The most obvious result of this American attitude was the fostering of an extraordinary energy and confidence of will. The American came to believe that nothing was beyond his power to accomplish, provided that he could muster the necessary moral and material resources, and that any obstacle could be mastered by means of the appropriate methods and technology. A failure was the result either of weakness or on an incorrect technique ...³³⁷

“Rejecting both the belief in a fixed social order and the belief in the depravity of human beings,” concludes Parkes,

the American created a society whose special characteristic was the freedom enjoyed by its individual members. Respect for the freedom of every individual and confidence that he would use his freedom wisely and constructively became the formative principles of the new American nationality. By crossing the Atlantic, the American had asserted a demand to be himself; he had repudiated the disciplines of the class hierarchy, of long-established tradition, and of authoritarian religion. And in the society that took shape in the New World it was by his natural and inherent quality that the individual was measured, rather than by rank or status or conformity to convention. To a much greater degree than elsewhere, society in America was based on the natural man rather than on man as molded by social rituals and restraints. The mores of America were less rigid and less formalized than those of any earlier community, and the individual was less

³³⁵ Vide Carl L. Becker, The Heavenly City of the 18th Century Philosophers (New Haven: Yale University Press, 1932).

³³⁶ Parkes, op.cit., pp.8-9.

³³⁷ Ibid., pp.9-10.

inhibited. The American did not believe that men needed to be coerced, intimidated, or indoctrinated into good behavior.³³⁸

Despite the Rousseauian flavor of the idea of “natural man” inhibited by social restraints, the content of Professor Parkes’ remarks is essentially correct. In America there developed a society of essentially ungraded men--a society in which the important questions are “what do you know,” and “what can you do,” not “who is your father,” or “why did you deviate?”

Americans have confidence in the constructive potentialities of human nature because they very early developed experiential evidence that such confidence was rewarded with effective social participation. Americans understand that the release of human energies in response to a never-ending array of crucial social problems provides effective means for the resolution of such problems.

It thus becomes apparent that whatever is literally unique about the American culture is primarily a consequence of the character of the American experience. The ideas of social fluidity, of democracy, and of “practical” judgments emerge as a consequence of the American experience with a 300 year physical frontier. These three ideas emerge from the frontier in a causal sense and are best illustrated perhaps by this frontier experience.

IV

The phrase “root, hog, or die” aptly suggests the essential content of frontier existence. Modification of European habits of social organization and technique *had* to occur if the mere continuity of life was to be maintained on the frontier. The crucial judgments on a frontier *must* be made in view of and in terms of the physical and social determinants of the problems confronted. To judge otherwise was to invite literal disaster. And disaster was the eventuation for those who insisted on the maintenance of previously conditioned mores and techniques in the face of evidence of their demonstrated inapplicability and, therefore, of their obvious unfitness for the problems at hand. A failure to comprehend was an invitation to defeat. Defeat was frequent but the community profited in a comprehension sense from the mistakes of its members. Further modification and adjustment followed incorporation of such enhanced comprehension. Error was corrected. And the problems of survival encountered on the frontier responded to the application of the “practical” judgment.

The literature regarding the frontier is replete with instances in which the accepted canons of “proper” conduct were necessarily set aside to permit the application of know-how and techniques which “fitted” in a demonstrable sense.³³⁹ Military rank frequently became subservient to the frontier scout’s knowledge of the nature of the terrain and of the predictable behavior of the Indian tribes. Canons of decency regarding the aversion to animal waste were set aside in the Platte Valley when wagon trains to Oregon required fuel to prepare the necessary meals enroute. In the absence of adequate wood supplies, buffalo “chips” were used for fuel. Comprehension of applicable technique was the condition of survival. Says Walter Prescott Webb,

To the white man, with his forest culture, the Plains presented themselves as an obstacle, one which served to exercise and often defeat his ingenuity, to upset his calculations, to hinder his settlement, and to alter his weapons,

³³⁸ *Ibid.*, pp.9-10.

³³⁹ E.g., A.B. Guthrie, Jr., *The Way West* (New York: William Sloane Associates, 1949); and Guthrie, *The Big Sky* (New York: William Sloane Associates, 1947). See also Bernard Augustine DeVoto, *Across the Wide Missouri* (Boston: Houghton Mifflin and Company, 1947).

tools, institutions, and social attitudes; in short, to throw his whole way of life out of gear. The history of the white man in the Great Plains is the history of adjustments and modifications, of giving up old things that would no longer function for new things that would, of giving up an old way of life for a new way in order that there might be a way ...³⁴⁰

Among the innovations analyzed by Webb in his discussion of the character of the settlement of the Great Plains are the following: 1) the abandonment of river travel for transport by horse and caravan; 2) the invention and use of the six-shooter as an instrument of war for the mounted plainsman; 3) the innovation of handling cattle on horseback; 4) the development and use of barbed wire as a fencing material in place of the split wooden rail; 5) the introduction of the windmill in providing water in semi-arid regions; 6) the adaptation of irrigation techniques which required modification in the English Common Law regarding water rights; 7) the development of dry farming techniques with the concomitant requirement of modification of traditional attitudes regarding land unit size; and 8) political innovation, expressing itself in such vagaries as populism, agrarian crusades, and farm relief.

In frontier communities, it was soon discovered that such comprehension was shared by all in some degree. That the collective judgment of persons who had themselves encountered and solved frontier problems was apt to be superior to that of an individual was an increasingly recognized principle. Thus the frontier was a democratizing influence. Considerations of prestige, rank, status, and family background were irrelevant to the problems of survival. The pertinent questions were: What can you do? What skills do you have? What do you know about military defense against Indians, fording a stream with a Conestoga wagon and a team of oxen, erecting a sod shelter where wood is not plentiful enough for log cabins, educating children in the elements of literacy, aiding as a midwife at the birth of children, and leading men not on the basis of autocratic discipline but in such fashion so as to permit the maximal effective contribution of each member of the group?

Professor Perry has identified the concept of democracy as follows: "The basic ideal which gives to the word 'democracy' its original and latent meaning is the idea of a social group organized and directed by all of its members for the benefit of all of its members."³⁴¹ The frontier imposed conditions which made survival contingent on some significant approximation of this idea of democracy.

Among the leading and original exponents of the democratizing impact of the frontier on human organization was Federick Jackson Turner.

Turner's explanation for the uniqueness of American democracy was the existence of the frontier. For this young adventurer in history, the frontier was neither a place nor a state of mind. It was an evolution. From the first 17th century settlements to near the end of the 19th century American society had always been starting afresh in new wilderness areas, and in each new place had developed swiftly from simplicity to complexity. "What the Mediterranean Sea was to the Greeks, breaking the bond of custom, offering new experiences, calling out new institutions and activities," said Turner in 1891, "that the ever-retreating Great West has been to the eastern United States directly, and to the nations of Europe more remotely." "The most important effect of the frontier," said Turner in his famous paper at Chicago in 1893,

³⁴⁰ Walter Prescott Webb, The Great Plains (Boston: Ginn and Company, 1931):507-8.

³⁴¹ Perry, op.cit., p127.

“has been the promotion of democracy here and in Europe.” “American democracy,” he reiterated in 1914 in much quoted phrases, “was born of no theorist’s dream: it was not carried in the Susan Constant to Virginia nor in the Mayflower to Plymouth. It came out of the American forest, and it gained strength each time it touched a new frontier.” Democracy, therefore, had a unique origin in America.³⁴²

The nondiscriminatory aspects of frontier life, the compulsions under such circumstances to an equalitarian treatment of individuals, has been ably set forth by Professor Paxon:

Youth, poverty, and hope in an environment of grinding labor were the constituents of the frontier mind; and there have been few situations in which more has depended upon the physical and individual stamina of the man, and less upon the accidents of his possessions. Birth had very little to do with success upon the border. It did not make the axe more sharp or the sod less tough. Education had little to do with it. Persistent physical labor was the lot of the able-bodied man or woman. There were few moments for intellectual relaxation; and although the wise and prudent lived longer than the foolish, the processes of establishment were the same for all. Wealth had less to do with success than in most society, for there were few stores in which to buy; few things to sell; and almost no labour to be hired. There were few uses for money that gave an advantage to the man who had it, where every man was working for himself, and where the labours of the pioneer filled every hour of daylight.

In a world of unusual equalities there developed readily an equalitarianism of thought. Upon the border there was a democracy of fact By observation the frontiersman saw that his neighbour was no better than himself; and he resented keenly the assumption by another of superiority. His democracy of fact made him resent the emergence of any privileged class, and made him restive under the thumb of any party, or local government, or nation that sought to impress itself upon his life without his full concurrence.³⁴³

While the frontier experience has long been eulogized as the seedbed of “rugged individualism,” such eulogies frequently misconceive the character of the individualism on the frontier. It was not a circumstance in which men found themselves unrestrained and uninhibited by any social restraints or controls. It was a circumstance in which the establishment of such controls could be tailored in such fashion as to permit the exercise of “practical” judgments in carrying on the necessary economic and social functions. And this job of cutting the institutional “cloth” to fit the actual problems encountered could best be accomplished when those involved in the problem had a voice in the shaping of the proposed adjustment. Self-reliance was not an atomistic phenomenon; it was a consequence of the recognition that shared judgment and mutual determination permitted all to do what was otherwise impossible on a strictly individual basis.

³⁴² Ralph Henry Gabriel, The Course of American Democratic Thought (New York: Ronald Press Company, 1940): 256-7.

³⁴³ Frederic L. Paxon, When the West is Gone. Quoted in Taylor, op.cit., pp.36-7.

American self-reliance is a plural, collective, self-reliance--not "I can," but "we can." But it is still individualistic--a togetherness of several and not the isolation of one, or the absorption of all into a higher unity. The appropriate term is not "organism" but "organization;" ad hoc organization, extemporized to meet emergencies, and multiple organization in which the same individuals join many and surrender themselves to none. Americans do not take naturally to mechanized discipline. They remain an aggregate of spontaneities. Such organization develops and uses temporary leaders--"natural" leaders, and leaders for the business in hand, rather than established authorities.³⁴⁴

Thus we see that the triad of ideas which have here been described as those which are most characteristically American are in fact closely interrelated and interdependent. The idea of democracy *means* that the persons who receive the incidence of social policy are themselves the ones who have discretion over the determination and administration of that policy. Progressive modification of social policy means progressive adjustment of institutional structure, social fluidity. And where the community-at-large has such discretion it will most frequently act in terms of its maturest comprehension of the nature of the determinants of the existent problems, it will apply its collective "practical" judgment. The fact that America experienced a physical frontier for such a large portion of its historical development means that these ideas found continuous, developmental application and were a source of irritation to the defenders of the status quo at all stages in American history. From the frontiers, these ideas permeated the remainder of the culture, altering modifying, condition, and prescribing the course of its development.

These ideas have not found universal acceptance even in America. Contrary tendencies have developed and will continue to develop. But the fact remains that the American culture, more than any other culture in human history, has been the living embodiment of the essence of these ideas. For most of the period of the American development, these ideas were largely inarticulate. But articulate or not, their significance cannot be ignored. There *is* something unique in a literal sense about the American experience. Note the following selection:

Americanism is not a static thing, crystallized by habit, custom, authority, and dogma, but a broad and flexible purpose which is adaptable to altered conditions, and which moves to new frontiers when old frontiers have been left behind. The belief, the will, the faith which is American is no worship of the past, no assurance that all is perfect in the eternal constitution of things, or in another world, but a conditional faith: we can if we try, and put our minds and our hand to it, and unite our action. It is not an easy optimism--a faith that moves mountains by simply wishing and believing, or by invoking supernatural agencies, but an inventive optimism, which moves mountains by learning how and applying the necessary leverage. It is utopian in its dreams, but does not confuse dreams with the actual state of affairs, and is prepared to earn rewards and not have them handed out.

This faith is justified to Americans by the fact that mountains have been moved. This faith, like all faith, exceeds the limits of past experience, but only because past experience itself has proved the immense resources of the implemented human will. It is a faith which does not easily accept impossibilities because so many impossibilities have proved to be possible. It is

³⁴⁴ Perry, op.cit., p13.

a faith, therefore, which is peculiarly suited to change: welcoming change both as affording an opportunity of advance, and as requiring new moves with which to meet those of the evil adversary. Americanism is not dismayed by the uncertainty of the future, or by the surprises of the perpetually unfolding present.³⁴⁵

This quotation means that the idea of “faith” has a uniquely American connotation. It is a “faith” in the capacities of the human intellect to resolve human problems when that intellect is encouraged to develop to its most complete level.

V

The social scientists’ effort to articulate the essentially unique quality of the American experience has been a long and frequently tortuous effort. But the function of explaining to a culture the character of its experiences and the meaning of such experience has always been the task of the more literate members of the community. And the fact that for a considerable number of decades the explanations of the American experience frequently missed the mark of accounting for the unique character of that experience increased the necessity for continuous efforts in that direction.

The American culture has been described frequently as a community that talks one way and acts another. In some fashion or other, the proffered explanations of the development of the American in terms of “manifest destiny,” and “the pursuit of happiness” did not quite ring true. There was a disjunction between behavioral traits and judgments on the one hand, and the idea systems in terms of which behavior and judgments were analyzed and explained on the other. The fact of the disjunction lends credence to the assertion of a literally unique quality about the American experience. Such experience did not fit the traditional explanations of social development. What is here captioned the American contribution is the most inclusive and scientific explanations purporting to bring the theory of American development into greater correspondence with the run of the evidences of that development.

Just as the peculiar character of the American *experience* is a product of a European culture transplanted and severely modified by the exigencies of a 300 year physical frontier, so also is the development of articulate American social theorizing a product of the inherited and imported thought systems and the indigenous contributions of American scholars. The latter product is generically, historically, and intellectually related to the former product. And the latter product is, in its own way, as literally unique as is the former product. It is the function of the remainder of this chapter to elucidate the particular cultural and intellectual origins from which the writings of Thorstein Veblen, John Dewey, and Clarence Ayres emerge.

VI

The cultural context out of which emerge the heterodox theories of these American scholars is, of course, that of the post-Civil War America. With the close of that conflict, the way was opened for the advent of industrial capitalism. Nowhere in the world, perhaps, were the institutions of capitalism to be given a comparably consistent trial-run. The defeat of the Southern aristocracy and the rise to power of the Republican party constituted a shift in the locus of political power. Within the next thirty years, after 1865, the remaining frontier was brought within the confines of an integrated economy. The battles over agrarianism continued well into the 20th century, but the shift in political power, and therefore economic power, at the close of the Civil War gave forewarning of the character of the eventual outcome.

³⁴⁵ *Ibid.*, pp.32-3.

Barbed wire, the windmill, and the six-shooter had facilitated the settlement of the last frontier, the Great Plains. Iron rails rapidly bound the agrarian economy of the West with that of the industrial East. The Bessemer process transformed an age of iron into an age of steel. And the application of scientific insight kept apace in the development of mechanized agricultural techniques. Exploitation of resources through competent techniques became the accepted behavioral trait. It was the period of "The Great Barbecue," as Parrington captioned this portion of the Gilded Age.

This bustling America of 1870 accounted itself a democratic world. A free people had put away all aristocratic privileges and conscious of its power went forth to possess the last frontier. Its social philosophy, which it found adequate to its needs, was summed up in three words--preemption, exploitation, progress. Its immediate and pressing business was to dispossess the government of its rich holdings. Lands in the possession of the government were so much idle waste, untaxed and profitless; in private hands they would be developed. They would provide work, pay taxes, support schools, enrich the community. Preemption meant exploitation and exploitation meant progress.³⁴⁶

Before the age of industrialism in America was a quarter of a century old, rumblings of dissent began to be heard. Unlovely manifestations of the effort to apply capitalistic theory to the problems of the economy began early to make themselves apparent. The farmers' Granger movement of the 1870s was a response to the predatory behavior of the railroad barons. The rumbling of dissent were also manifest in the early, if abortive, efforts to organize the Knights of Labor as a significant labor movement. Much of the agitation for social reform in terms of "easy money policies," "anti-monopoly proposals," and the like were embodied in third party movements. The Populist Party reached the height of its power just before the turn of the century. The cultural matrix of the development of American heterodoxy constituted the forcing bed for the articulation of explanations of the nature of the American experiment in social problem-solving.

VII

Post-Civil War America also provided a modified intellectual matrix from which emerged social heterodox thought. Says Parrington:

The enthronement of the machine was only the outward and visible sign of the revolution in thought that came with the rise of science. As a new cosmos unfolded before the inquisitive eyes of scientists, the old metaphysical speculations became as obsolete as the old household economy. A new spirit of realism was abroad, probing and questioning the material world, pushing the realm of exact knowledge into the earlier regions of faith. The conquest of nature was the great business of the day, and as that conquest went forward triumphantly the solid fruits of the new mastery were gathered by industrialism. Science and the machine were the twin instruments for creating a new civilization, of which the technologist and the industrialist were the high priests. The transcendental theologian was soon to be as

³⁴⁶ Vernon L. Parrington, Main Currents in American Thought (New York: Harcourt, Brace and Company, 1927, 1930)III:9.

extinct as the passenger pigeon.³⁴⁷

The “revolution in thought” which occurred was causally influenced and perhaps best illustrated by the publication in America in 1860 of Charles Darwin's Origin of Species. This book was an appropriate symbol of the character of the forthcoming modifications in social analysis.³⁴⁸

The impact of Darwin's work on the natural and social sciences, as well as upon theological beliefs, was admittedly enormous. It was a fundamental shift in attitudes of mind regarding the inquiry process. Says John Dewey:

That the publication of the “Origin of Species” marked an epoch in the development of the natural sciences is well known to the layman. That the combination of the very words origin and species embodied an intellectual revolt and introduced a new intellectual temper is easily overlooked by the expert. The conceptions that had reigned in the philosophy of nature and knowledge for 2000 years, the conceptions that had become the familiar furniture of the mind, rested on the assumption of the superiority of the fixed and final; they rested upon treating change and origin as signs of defect and unreality. In laying hands upon the sacred ark of absolute permanency, in treating the forms that had been regarded as types of fixity and perfection as originating and passing away, the “Origin of Species” introduced a mode of thinking that in the end was bound to transform the logic of knowledge, and hence the treatment of morals, politics, and religion.³⁴⁹

And while the Darwinian controversy was customarily viewed as the encroachment of science on theology, its more significant impact was the transformation of the nature of scientific inquiry. The effect on science was to transform such inquiry from a search for reality behind and beyond the processes of nature to a search for reality *within* the processes of nature. As Dewey puts it:

There are, indeed, but two alternative courses. We must either find the appropriate objects and organs of knowledge in the mutual interactions of changing things; or else, to escape the infection of change, we must seek them in some transcendent and supernal region. The human mind, deliberately as it were, exhausted the logic of the changeless, the final, and the transcendent, before it assayed adventure on the pathless wastes of generation and transformation.³⁵⁰

And there is, perhaps, no better summarization of the impact of Darwinian ideas than a further statement by Dewey:

The influence of Darwin upon philosophy resides in his having conquered the phenomena of life for the principle of transition, and thereby freed the new

³⁴⁷ Ibid., III:4.

³⁴⁸ Vide Richard Hofstadter, Social Darwinism in American Thought (Philadelphia: University of Pennsylvania Press, 1945) chapter 1.

³⁴⁹ John Dewey, The Influence of Darwin on Philosophy (New York: Henry Holt and Company, 1910):1-2.

³⁵⁰ Ibid., p.7.

logic for application to mind and morals and life. When he said of species what Galileo had said of the earth, e pur se muove, he emancipated, once and for all, genetic and experimental ideas as an organon of asking questions and looking for explanations.³⁵¹

It was, of course, Herbert Spencer who first popularized the evolutionary outlook among social scientists in the United States and England. And while persons like Dewey and Veblen objected to the particular analysis of Spencer regarding the social significance of Darwinism, both accepted the evolutionary point of view.

The impact of Darwinism stirred the intellectual temper of the times. But there were other philosophical influences in the last quarter of the 19th century which contributed to the development of heterodoxy in social analysis.

Both Dewey and Veblen were strongly influenced in their formal educational training by German philosophy. Indeed, the importation of Hegelian Idealism and Kantianism was viewed as a threat to the orthodoxy of British Empiricism and the Scottish common-sense philosophy. Hegel's concept of "becoming" had been offered as a partial refutation of the Newtonian concept of "being." And this placed Hegelianism in conflict with the British Empirical school, especially the philosophy of John Stuart Mill. Hegelianism was process or evolutionary analysis. Marx had adopted the Hegelian dialectic, with important modifications, and Marxian ideas circulated widely in America and England during this period.

Dewey has acknowledged the important impact that Hegelianism had upon the formative years of his intellectual development. It left a "permanent deposit" in Dewey's thinking. The nature of the deposit is revealed in the following selection:

Hegel' idea of cultural institutions as an "objective mind" upon which individuals were dependent in the formation of their mental life fell in with the influence of Comte and of Condorcet and Bacon. The metaphysical idea that an absolute mind is manifested in social institutions dropped out; the idea, upon an empirical basis, of the power exercised by cultural environment in shaping the ideas, beliefs, and intellectual attitudes of individuals remained. It was a factor in producing my belief that the not uncommon assumption in both psychology and philosophy of a ready-made mind over against a physical world as an object has no empirical support. It was a factor in producing my belief that the only possible psychology, as distinct from a biological account of behavior, is a social psychology. With respect to more technically philosophical matters, the Hegelian emphasis upon continuity and the function of conflict persisted on empirical grounds after my earlier confidence in dialectic had given way to skepticism. There was a period extending into my earlier years at Chicago when, in connection with a seminar in Hegel's logic I tried reinterpreting his categories in terms of "readjustment" and "reconstruction." Gradually I came to realize that what the principles actually stood for could be better understood and stated when completely emancipated from Hegelian garb.³⁵²

³⁵¹ *Ibid.*, p.9.

³⁵² Jane M. Dewey (ed.), "Biography of John Dewey," *The Philosophy of John Dewey*, ed. by Paul Arthur Schilpp (Chicago: Northwestern University, 1939):17-8.

Much of the Hegelian influence upon Dewey's thought was a consequence of his long and intimate association with George Sylvester Morris.

Veblen's interests were directed to the works of Kant. At Yale, Veblen did research in Kantian philosophy. Noah Porter at Yale was Veblen's major instructor in philosophy and was also his intellectual confidant. Veblen's doctoral dissertation, "Ethical Grounds of a Doctrine of Retribution," involved a thorough-going treatment of both Spencer and Kant.³⁵³

Porter represented substantially the common-sense philosophy, with its utilitarian ethics and its apotheosis of the rights of property. Porter, Sumner, and Spencer were essentially of the same school But Veblen specialized in Kant and the post-Kantians.

Kant was of a different mould. His ethics was not hedonistic.³⁵⁴

Kant's "categorical imperative" was a moral imperative which "recognizes that man is an end in himself, not a means, but it is not therefore utilitarian, for utilitarianism is not moral."³⁵⁵

Veblen took from Kant the idea of the significance of the power of inductive reasoning as an indispensable component of morality. Indeed, Veblen published an article on Kant's Critique of Judgment.³⁵⁶ He held that The Critique of Judgment was "an attempt to mediate between the outcome of the Critique of Pure Reason, 'which is the notion of strict determinism, according to natural law, in the world,' and the Critique of Practical Reason, 'which is the notion of freedom in the person ...'³⁵⁷

From Kant, Veblen apparently obtained a refinement of his theory of knowledge--a refinement in the nature and significance of inductive reasoning. Moreover, it was an insight into the fact that intuitive and revealed theories of knowledge were not applicable to real problems. Kant supplied Veblen with ideas which helped him formulate a non-absolute, non-final, non-teleological explanation of the nature of knowledge.

But though this question of teleology is of extreme importance, yet a knowledge of the teleological end of a given thing, or the purpose of an action or event as considered from the standpoint of the economy of the universe, is not absolutely necessary in order to human life, nor even in order to a high degree of development in moral life. In truth, a knowledge of ultimate particular ends and purposes is of no use whatever in the affairs of everyday life; and, therefore, the principle of teleology, as being the principle of conscious purpose in the world, is not indispensable in order to such knowledge of things as is required by the exigencies of life. The knowledge we need and use can be got, and got in sufficient completeness for all purposes of utility, without any appeal to, or any aid from the developed principle of finality; and, if the exercise of the reflective judgment, in its logical application, consisted in the decision of teleological questions

³⁵³ Joseph Dorfman, Thorstein Veblen and His America (New York: The Viking Press, 1934):46.

³⁵⁴ Ibid., p.49.

³⁵⁵ Ibid.

³⁵⁶ Thorstein Veblen, "Kant's Critique of Judgment," Journal of Speculative Philosophy, XVIII (July 1884).

³⁵⁷ Dorfman, op.cit., p.51.

alone, its value would be small enough. Such, however, is not the case.³⁵⁸

Not only were Dewey and Veblen influenced by the consideration of Germanic philosophy, they were markedly attracted to the thinking of an obscure logician at Johns Hopkins by the name of Charles Saunders Peirce. Professor Dorfman records Veblen's contact with Peirce in the following passage:

Veblen became interest in the lectures on "Elementary Logic" given by a man who was later to be recognised as a creative intellectual force. This was Charles Peirce, a temporary lecturer. Peirce had already published a series of papers on "The Logic of Science," emphasizing that "the whole function of thought is to produce habits of action," that the "guiding principles" of inquiry are "habits of mind," that "thought is an action" leading in turn to further thought. He marked a radical departure from the "method of authority" of common sense. He described Mill's classic Logic as embodying the "philosophy of ordinary mankind," but declared that most of the examples of scientific induction in the first edition of the Logic had since been proven to be bad inductions.³⁵⁹

Stanley M. Daugert has suggested an integration of the influence of Kant and Peirce on the development of Veblen's theory of knowledge. says Daugert:

... in these four points of interpretation of Kant's epistemology lie the source of much that is distinctive and characteristic in Veblen's later economic philosophy. These points are as follows: Veblen 1) identified Kant's faculty of the pure reflective judgment with inductive reasoning; 2) sought to extend the reflective judgment as inductive reasoning beyond the domain of merely moral judgments by stressing inductive reasoning as true science, applicable everywhere in "practical life"; 3) dismissed as unimportant in the "affairs of everyday life" the question of final causes, universal teleology; and 4) introduced Charles Saunders Peirce's concept of the "guiding principle" into his discussion by claiming that the principle of adaptation was the guiding principle of the reflective judgment (inductive reasoning).³⁶⁰

Dewey himself has acknowledge that Charles Saunders Peirce was the founder of the American development of Pragmatism and Instrumentalism.³⁶¹ And throughout the works of Dewey frequent mention is made of the indebtedness Dewey felt toward Peirce for his original contributions to the development of a scientific and experimental logic.³⁶² Says Dewey:

³⁵⁸ Thorstein Veblen, "Kant's critique of Judgment," Essays in Our Changing Order (New York: The Viking Press, 1934):187.

³⁵⁹ Dorfman, op.cit., p.41.

³⁶⁰ Stanley Matthew Daugert, The Philosophy of Thorstein Veblen (New York: Kings' Crown Press, 1950):15-16.

³⁶¹ John Dewey, "The Development of American Pragmatism," Philosophy and Civilization (New York: Minton, Balch and Company, 1931):13ff.

³⁶² e.g. John Dewey, Logic: The Theory of Inquiry (New York: Henry Holt and Company, 1938):9ff and 468ff. Also Philosophy and Civilization, op.cit., 13ff and 149.

C.S. Peirce, after noting that our scientific propositions are subject to being brought in doubt by the results of further inquiries, adds, “We ought to construct our theories so as to provide for such [later] discoveries ... by leaving room for the modifications that cannot be foreseen but which are pretty sure to prove needful.” (Collected Papers, Vol.V:376 note) The readers who are acquainted with the logical writing of Peirce will note my great indebtedness to him in the general position taken. As far as I am aware, he was the first writer on logic to make inquiry and its methods the primary and ultimate source of logical subject-matter.³⁶³

The seeds of what will be developed below in this study as Dewey's “instrumental logic” are to be found in the writings of Charles Saunders Peirce.

A further intellectual influence on Veblen as reflected in the character of the ideas which he produced is that of cultural anthropology. Veblen early took an interest in the work of the anthropologists and sociologists. And while much of the early literature of the scholars in this field reflected the Spencerian application of Darwinism to social analysis, Veblen avoided, for the most part, this “survival of the fittest” point of view.³⁶⁴

Veblen's interest in anthropological inquiry stemmed from his concern to explain the evolutionary development of human institutions, and especially economic institutions. When Veblen was at the University of Chicago, a friend--W.I. Thomas of the sociology department--was expressing skepticism of the Spencerian approach to an explanation of culture. Dorfman quotes Thomas as follows:

“[Anthropology] ... has undergone a change well illustrated by the difference between the biological botany of today, and the ‘herbarium’ botany of the past.” Today the primary interest is in “the laws of growth,” the laws of development within a culture, not in classification. Thomas worked in terms of Loeb's tropisms, but interpreted them in a manner more akin to Morgan's and Dewey's psychology and philosophy than to Loeb's metaphysics of sensation.³⁶⁵

It is to be presumed that Thomas provided Veblen with many of his more important anthropological insights and illustrative data.

Veblen's sense of the significance of anthropological inquiry may be further indicated by the following statement written by Veblen to one of his students.

As for the anthropological reading, which I have inveigled you into, I do not know that it will be of much direct use, but it should be of some use in the sense of an acquaintance with mankind. Not that man as viewed by the anthropologist is any more--perhaps he is less--human than man as we see him in everyday life and in commercial life; but the anthropological survey should give a view of man in perspective and more in the generic than is ordinarily attained by the classical economists, and should give

³⁶³ Dewey, Logic, op.cit. p,9.

³⁶⁴ The possible exception to this is in Veblen's essays regarding “the dolicho-blond race.” Vide Essays in Our Changing Order, op.cit.

³⁶⁵ Dorfman, op.cit., p.125.

added breadth and sobriety to the concept of “the economic man.”³⁶⁶

A further major influence on the development of Dewey’s thought was that of the writings of William James. Perhaps more than any other factor, the “objective, biological approach of Jamesian psychology” accounted for the shift of Dewey away from the Germanic Hegelianism of George Sylvester Morris to Pragmatism. Says Dewey’s biographer: “William James’s Principles of Psychology was much the greatest single influence in changing the direction of Dewey’s philosophical thinking.”

James’s influence on Dewey’s theory of knowledge was exercised not by the Pragmatism, which appeared after Dewey’s theory had been formed, but by chapters in the Principles of Psychology dealing with conception, discrimination and comparison, and reasoning ...³⁶⁷

Dewey himself comments on the character of the influence of James in an autobiographical article published in 1930.

... there are ... two unreconciled strains in the Psychology [of William James]. One is found in the adoption of the subjective tenor of prior psychological tradition. The other strain is objective, having its roots in a return to the earlier biological conception of the psyche, but a return possessed of a new force and value due to the immense progress made in biology since the time of Aristotle. ...it [the latter strain] worked its way more and more into all my ideas and acted as a ferment to transform old beliefs.³⁶⁸

At the hands of James, the development of the pragmatic point of view moved from the determination of the meaning of words and the vital importance of philosophic beliefs to an analysis of the nature of truth.

James showed, among other things, that in certain philosophic conceptions, the affirmation of certain beliefs could be justified by means of the nature of their consequences, or by the differences which these beliefs make in existence ...

From a general point of view, the pragmatic attitude consists in “looking away from first things, principle, “categories,” supposed necessities; and of looking towards last things, fruits, consequences, facts ...

It is ... in submitting conceptions to the control of experience, in the process of verifying them, that one finds examples of what is called truth.³⁶⁹

³⁶⁶ Quoted in Dorfman, op.cit., pp.132-3.

³⁶⁷ Jane M. Dewey, op.cit., p.23.

³⁶⁸ John Dewey, “From Absolutism to Experimentalism,” Contemporary American Philosophy, Vol.II, ed. by G.P. Adams and William P. Montague (New York: The Macmillan Company, 1930):23-4.

³⁶⁹ Dewey, Philosophy and Civilization, op. cit., pp.22-3.

The development of Instrumentalism may be thought of as having emerged from three primary intellectual sources: 1) British Empiricism (the idea of experimental verification in James and Peirce); 2) a critique of Germanic idealism regarding the theory of knowledge and logic; and 3) an evolutionary, biological psychology (the Darwinian impact on psychological theory).

Dewey has identified the nature and purpose of Instrumentalism in the following passage:

Instrumentalism is an attempt to establish a precise logical theory of concepts, of judgments and inferences in their various forms, by considering primarily how thought functions in the experimental determinations of future consequences. That is to say, it attempts to establish universally recognized distinctions and rules of logic by deriving them from the reconstructive or mediative function ascribed to reason. It aims to constitute a theory of the general forms of conception and reasoning, and not of this or that particular judgment of concept related to its own content, or to its particular implications.³⁷⁰

The social significance of Instrumentalism and its relation to American experience is suggested in the following remarks of Dewey:

Instrumentalism maintains in opposition to many contrary tendencies in the American environment, that action should be intelligent and reflective, and that thought should occupy a central position in life. ... what we insist upon above all else is that intelligence be regarded as the only source and sole guarantee of a desirable and happy future. It is beyond doubt that the progressive and unstable character of American life and civilization has facilitated the birth of a philosophy which regards the world as being in continuous formation, where there is still place for indeterminism, for the new, and for a real future ...³⁷¹

Upon reflection, it will be recognized that what has been developed in the last portion of this chapter as the intellectual heritage of American heterodoxy in social analysis is but a refinement and extension of the character of American experience considered in the fore part of the chapter. While the more precise analysis of the content of the American contribution appears below, it should be apparent that there is a close and causal relationship between American experience and American heterodox thought.

For example, the following statement may be fruitfully compared with the views of Professor Parry (supra, pp.61 and 77) regarding the role of American philosophy (and social thought generally) in explaining the character of American experience.

... American philosophy [Pragmatism and Instrumentalism] ... has given to the subject, to the individual mind, a practical rather than an epistemological function. The individual mind is important because only the individual mind is the organ of modifications in traditions and institutions, the vehicle of experimental creation. One-sided and egoistic individualism in American life has left its imprint on our practices. For better or for worse, depending on the point of view, it has transformed the esthetic and fixed individualism

³⁷⁰ Ibid., p.26.

³⁷¹ Ibid., p.33.

of the old European culture into an active individualism. But the idea of a society of individuals is not foreign to American thought; it penetrates even our current individualism which is unreflective and brutal. And the individual which American thought idealized is not an individual per se, an individual fixed in isolation and set up for himself, but an individual who evolves and develops in a natural and human environment, an individual who can be educated.³⁷²

It will be noted that no consideration has been given thus far to the intellectual origins of the ideas of Clarence Ayres. This exclusion is explained in view of the fact that the works of Ayres are perhaps the most definitive and original combination of the ideas of Dewey and Veblen. And since the Ayresian portion of what is here captioned the American contribution is of comparatively recent origin, it will suffice to say that his work is a later product of the accelerating intellectual and cultural forces previously considered. As in the writing of his dissertation at Chicago on the relationship between ethics and economics, Ayres has blended the works of Dewey and Veblen and produced original ideas consistent with and, more significantly, in an extension of his intellectual parental sources. The contributions of Ayres to the American heterodox analysis are explained below.

³⁷² ibid., p.34.

4. "American Contributions to Economic Thought" lecture notes

FRONTIERSMEN

The first complete break from the European system of economic thought is the American contribution. The frontier--an area of land which is outside the control of a judicial establishment and outside the market process--accounts for what is distinctive in American thought, but not for all distinctions of American culture. That experience of living outside the "law" forced the mountain men and pioneers to construct a problem-solving theory of value and economic thought.

There may have been half-a-million Native Americans in North America at the time of Columbus. The continent might be considered overpopulated for their stone-age state of the arts. These "Indians" taught skills to the incoming Americans, such as trapping, stalking, agriculture, and eating habits. This allowed the frontiersmen to supply themselves outside the European market. They often treated Native Americans shamefully, but they engaged in productive activity much more than in exercising discretion over others. Their basic problem was how to occupy new lands, as distinct from the common human experience of outsiders conquering dense populations of earlier inhabitants of new lands.

On the frontier there was considerable separateness of individuals. Every individual or family had to perform all operations for gaining a livelihood--without institutional prescription. They were *de facto* almost anarchists, but they mastered the arts of sustainability, which included cooperation based on need--building a cabin requires more than one person. An individual must do whatever he can according to his skills, and the community will help in those activities beyond his skills. They agreed with the classical theory that the common interest is the same as individual interests. But they rejected the corollary theory claiming that interests are brought into identity by market structures. This is the unique American contribution that has led to the development of theories of collaboration that are generically democratic.

Frontiersmen had a plethora of skills, and demanded the right to be different as long as these characteristics did not hinder the effort to live. Freedom in the American experience means the enlargement of the area of genuine choice, whereas freedom in the European sense means an absence of prescription. They recognized the relationship between ethics and productive activity--the congruence between material welfare and moral validity. They were quasi-athiestic, rejecting an institutional idea of a Supreme being. They were religious in identifying the instrumental concept of problem solving. In that illiterate society, a man's word was his bond. Society could not function without honesty, so deception was treated harshly.

Frontiersmen found resources available outside of the market process. No markets existed to correlate the factors of production. Land was a free resource. It was not necessary to accumulate money before buying land and earning a living. Ownership depended on productive use. Labor was viewed not as a cost but as necessary and fun.

The frontier experience led Americans not to accept the Wealth of Nations as Europeans did. They rejected its premise that wanting is the essential economic problem and removing want is the solution. They rejected the labor market as maximizing the wealth of nations. They disassociated investment from personal saving. Frontiersmen were always in debt, but built the most productive nation in history. Money cost was unimportant; bankruptcy came to be used to reassign debt without change of organization or cessation of production, permitting weak firms to compete with strong by eliminating fixed costs on interest-bearing debt and lowering average variable costs so that prices can be lowered. Real costs are important, but don't include work,

which is necessary and fun. The classical and utilitarian theories could not be used to solve problems.

THOMAS JEFFERSON

Jefferson is the best spokesman for the central ideational content of American intellectual development found on the frontier. He opposed all “isms” because he recognized that the actualities are non-institutional in nature. His “Declaration of Independence” asserts that all invidious distinctions among men are figments of the imagination; it does not mean equal opportunity. He rejected Smith, finding market assignment of labor and wealth to be fatal. From the frontier he saw that work--not saving--creates the wealth of nations; that investment generates savings (anticipating Keynes), and that money has nothing to do with capital formation: price always equals cost. Capital formation is not possible with the wage system unless debt is increased.

Jefferson agreed with Smith that capital formation is related to progress, but disagreed on its nature. He was willing to use markets to reach ends, but not to determine ends. He found valid ends to be instrumental rather than utilitarian.

Productive labor was the base of Jefferson’s theory of progress. Agriculture was at first the only field where labor would be of value, but when small machines were invented for home manufacturing, that endeavor became productive. He wrote the following to John Jay from Paris in 1785:

Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to the country and wedded to its liberty and interest by the most lasting bands. As long, therefore, as they can find employment in this line, I would not convert them into mariners, artisans, or anything else. But our citizens will find employment in this line till their numbers, and of course their productions, become too great for the demand both internal and foreign. This is not the case as yet, and probably will not be for a considerable time. As soon as it is, the surplus of hands must be turned to something else. I should then perhaps wish to turn them to the sea in preference to manufactures, because comparing the characters of the two classes, I find the former the most valuable citizens. I consider the class of artificers as the panders of vice and the instruments by which the liberties of a country are generally overturned. However, we are not free to decide this question on principles of theory only. Our people are decided in the opinion that it is necessary for us to take a share in the occupation of the ocean, and their established habits induce them to require that the sea be kept open to them, and that line of policy be pursued which will render the use of that element as great as possible to them.³⁷³

Agriculture was not only for one class of people. If there were to be more than one class, it would be the base from which other institutions would grow. He wrote in 1803:

It is a science of the very first order. It counts among its handmaids the most respectable science, such as Chemistry, Natural Philosophy, Mechanics, Mathematics generally, Natural History, and Botany. In every College and University, a

³⁷³ Boyd, v. 8:426. To John Jay, Paris, 23 August 1785.

professorship of agriculture, and the class of its students, might be honored as the first. Young men closing their academical education with this, as the crown of all other sciences, fascinated with its solid charms, and at a time when they are to choose an occupation, instead of crowding the other classes, would return to the farms of their fathers, their own, or those of others, and replenish and invigorate a calling, now languishing under contempt and oppression.

Jefferson did not mention the price of hired labor. His only relation with this problem was land owners bringing immigrants to the United States where they would be in servitude. After his passage was paid, the laborer heard no mention of a time limit to his work. The immigrant was expected to settle on his own land. The subsistence for the farmer is the only labor cost mentioned, but the farmer acting in an entrepreneurial capacity. When Jefferson referred to the word subsistence, he gives the impression that the living standard is much higher than the standard referred to in the classical definition. He never defined the word because labor did not enter into the market process.

THORSTEIN VEBLEN.

The separate identification of economic inquiry in America didn't really begin until around 1900. This was a period of intellectual flowering: the beginnings of sociology and anthropology and the instrumental theory of Dewey. Most PhDs had studied in Germany; some, like Ely, were escaping European influences. Then came Veblen, who "compelled a whole generation of economists to search their hearts lest the truth be not in them"(Homan) Here is the first real break in the character of economic analysis. The heterodoxy of both Marx and Keynes maintained orthodox roots.

Veblen rejected the orthodox preconception that the economic process is teleological--final causes worked out by selfish human nature, by an unseen hand rather than by cause-effect relationships--because it is both taxonomic and tautological; assumptions and conclusions are the same, self-contained and self-warranting. Guidance by the invisible hand is non-causal in its determination. Evidence of teleology: 1) the natural course may be deflected by man--who is not part of nature; 2) when the natural course of events is deflected, it recovers (heals itself) and continues to its intended end when obstruction is removed. Since the course of economic events resumes, it must be determined by factors outside of process.

Veblen rejected the universality of the market as an institutional structure, of selfishness as the dominant human motive, and price as the guide of human behavior. He focused on the function of economic activities as providing the means of life for community continuity. Anthropology provided the major subject matter for his method. He recognized the foolishness of the orthodox explanation when applied to primitive societies--the impossibility of describing the fishing of South Sea islanders wading in the surf with sticks and chanting magic formulae as a division of labor guided by the market and the rational selfishness of the participants. He saw that land, labor, and capital are not significant categories for identifying the means of production. More important are customs and habits of the people, and their knowledge of technology. He thus came to believe that economics should study the institutional patterns and technology of any people to understand their economy, without any preconception that these patterns and knowledge would lead toward any equilibrium.

Veblen claimed to make no value judgments in his analyses, but in every one of his works he tests existing patterns against what was technologically feasible. Thus, it is fair to say that he took technology to be the locus of validity, although many of his followers as well as his critics have not recognized this. His method for testing the suitability of any pattern of economic

activities was to apply the Veblenian distinction between instrumental behavior and ceremonial behavior. His distinction between technology and institutions confused the constitution of institutions--patterns of habits--with the determination of institutions--their origin. Veblen seems to be getting at the insight that all answers to economic problems take the form of institutional adjustment. His basic mistake was to believe that institutions are a result of unconscious habituation, which denies any grounds for intelligent institutional adjustment.

Veblen thought technology and institutions are independently progressive. Neither depends upon the other. Institutions come into being through habituation, and they change with something of a consistent sequence. He didn't know just what this sequence was; he found no direction in the process. It is in terms not of an approach toward a particular institutional pattern but toward greater economy and efficiency. He was thinking of instrumental efficiency but didn't know it because he didn't recognize the significance of science, he couldn't validate it. Individual scientists probably do proceed because of idle curiosity, but that does not mean that science is without significance or rational basis.

Starting in his Theory of the Leisure Class in 1899 and continuing through most of his work, he identified conspicuous consumption as a pattern of behavior common to all societies above a mere subsistence level of production. As a community increases its productivity, different classes develop methods for appropriating whatever part of the community's produce is not strictly necessary for production, and using it in ways that are reputed to be productive and that the whole community accepts as proper. Thus, early warriors would steal women and men to work for them; after they had a large number, they would have the women conspicuously display their exemption from labor as evidence of the wealth of their owner-husband, but always with the imputation that amassing wealth resulted from contributing to the wealth of the community.

What does this have to do with economics? It shows that the resources of communities are not distributed rationally by a market for the purpose of maximizing production. It shows that a society with rank and status distinctions--i.e., all societies--does not leave individuals free to seek their selfish interests, since the structure of the society assigns functions to its members. And it suggests that price is a symbol of the existing structure--that goods with high prices are consumed by the proper people--rather than an indication of what is intrinsically desirable and good.

Criticism of marginal utility theory:

1) Wants are taken as given. Analysis is limited to the theory of distribution and has only a secondary bearing on any other economic phenomena. But consumption is a cultural trait, and to explain either demand or supply, one must go beyond the market process. The utility concept of value necessarily is a matter of valuation. Valuation stems from choices of alternative utilities (anticipations of want-satisfaction) which are a function of previous consumption, which is the direct concomitant of distribution.

2) Prices of commodities are taken as given in order to reach answers about prices of commodities--tautology. Since this theory is necessarily concerned with adjustments of relative values to a given situation, it can add little, if any, to a theory of growth, change, or process--the most obtrusive and consequential facts observable in economic life--and thus can offer little to understanding the determination of the situation itself.

3) The institutional structure is taken as given, and the analysis limited to adaptation to the demands of the main chance rather than to problem solving.

4) Marginal utility analysis is confined to the ground of sufficient reason instead of proceeding on the ground of efficient cause. Here is another revelation of Veblen's basic mistake. He thought that habit emerges full-blown, but it is a matter of choice in its initial

deviation from an established pattern. It involves discretion. The only way that a cause-effect sequence comes into institutional structure is through becoming a sufficient reason, and so all effective cause at one stage in the process of institutional adjustment takes the form of sufficient reason. This blocked Veblen and his followers, but was understood by Ayres. An idea must become a sufficient reason in the comprehension of the community so that members can modify their behavior. This mistake came from applying what is true in the physical sciences to humans: molecules don't think and have discretion as humans do.

5) Marginal utility is limited to individual motivation and action, and to their arithmetic sums as aggregates. Veblen's genetic theory examines individual conduct, but only in those respects in which it leads toward habituation, and so toward change or stability in the institutional fabric. Veblen was seeking a theory of institutional adjustment, but precluded himself from it by confusing the content (habits) of institutions with their determination (by discretion).

Veblen criticized price and utility theory extensively, but his positive contributions came mostly in the area of economic growth. For orthodox economists, economic growth meant and still tends to mean more of the same--more land, labor, and capital to produce more of the goods already used in a society. For Veblen, growth was an evolutionary process wherein the structure of a society changed. The reason for change he identified as the pressure of technology. Much like Marx, he recognized that new methods of production caused strains in the patterns of habits followed by a community. With technology as his standard, he said that a community could change its institutions to fit the new productive processes, or it might maintain patterns of institutions which inhibited production and even led to the destruction of society.

Foster thinks Veblen's best book on development is Imperial Germany. Here he studied the reasons for England's leading role in the adoption of industrial technology in the 1700s, and the reasons for Germany's rapid assimilation of those techniques after 1870. He shows how England's backwardness in the Elizabethan Era made her able to borrow then-current handicraft techniques from the continent, and then to develop these into new production methods because of her relative freedom from the wars, political intrigues, and rigid class structures of Europe. But by the middle 1850s technological progress was leaving England behind. Because much of her capital was obsolete--small railroad cars suitable for wooden or iron rails but inefficient when steel rails were perfected--her captains of industry focused on protecting their investments; sports were highly developed as a means of lessening industrial efficiency by consuming time and energy nonproductively; women were forced into Victorian clothing and forbidden to produce. While in Germany, the Prussian rulers had an educated work force used to constant application, women still worked in the fields, and the wealthy were not burdened with obsolete investments. In addition, since the Germans had not developed the democratic institutions which grew up in England with handicraft and machine industry, the rulers could give orders and be certain of obedience. Thus within decades Germany came to surpass the productivity of England.

Not only did Veblen explain this case of economic development, he also predicted the warfare which was apt to result from the use of modern technology by a primitive dynastic state such as Germany was--a state in which the people blindly followed the leader and where the leaders were high-powered bullies convinced that might makes right.

Veblen's contribution:

1) Distinction between technology and institutions, although not accurately stated. He realized that given data must be taken from technology--the state of the industrial arts--but he

didn't go far enough. He failed to recognize that institutions have both instrumental and ceremonial functions.

His critics say that since he was not going toward any "ism," he was not going anywhere--his analysis was directionless and meaningless. But he recognized that the identification of direction--meaning the criterion of judgment--cannot be stated validly in terms of institutional structure. To Veblen, an "ism" exists as an idea, and is a useful structure for identifying ideas in reference to a theory of value. He noted that these patterns are accepted as natural, but in fact are not so.

Foster maintains that Veblen's distinction between technologically valid patterns of behavior and ceremonial patterns which falsely claim to be productive is what economists need today to help develop the many backward economies of the world. We can't tell India to get more capital as long as Indians allow cows to roam the streets eating rather than providing food. We can't tell them to work harder with their ox-drawn plows. We must educate them to recognize which of their institutions are obstacles to a modern economy, and also help them protect other institutions which are undoubtedly valuable.

2) The test of the maturity of scientific theory is its ability to predict, and Veblen is the only social scientist who ever lived who was able to predict. Next to him was Keynes.

What Veblen started is the development of the theory of institutions, of which economics is one phase. He gives us a chance to work toward a general theory, which is now lacking. He does away with ismatic criteria for the judgment of direction.

Eric Roll, in A History of Economic Thought (Englewood Cliffs, NJ: Prentice Hall, 3rd edition 1956), dismissed the significance of the Veblenian distinction (449) and lamented the little that Veblen left to replace classical economics (447). That is like asking an atheist what he will put in the place of the Holy Trinity. If classical economics focused on the market system, and Veblen's analysis shows that the market system just describes what a community does and not at all what it should do, then is it pertinent to ask Veblen to provide an alternative analysis of the market? Is it not necessary that economists redefine their subject? Keynes forced economists to concern themselves with institutional patterns such as the consumption function. Now work on economic development is forcing many to come to grips with technology and culture. But still the content of theoretical economics is to describe how a series of forces will push us to a static equilibrium if we will only let them work or help them at the right times. Where does Veblenian analysis lead? To genetic study of culture and technology.

JOHN R. COMMONS.

Commons' principle of agreed compromise--what people think rather than what criterion of judgment is in fact true--led him to view the administrative commission as the American answer to the major economic problems which have arisen out of the new technology in combination with corporate organization. His view was that the traditional separation of legislative, judicial, and executive functions rendered our economy helpless when confronted with such problems as monopoly, public utilities, labor organization, currency control, investment banking, taxation, etc. Problems of this sort require, he thought, agencies which combine the three functions because we must have a practical method of "correlating law, economics, and ethics ..." And his concept of the correlating function is embodied in his theory of "due process of law" which, again, is an application of his principle of agreed compromise and, in another of its applications, constitutes what judicial institutions identify as "reasonable." "Reasonable" is a very important concept in contemporary legal theory: note ratemaking rules. According to agreed compromise, findings of commissions may be held reasonable when all parties affected by the findings are given full opportunity to present their opinions and intentions and their

reasons for them. Findings of agreed facts are then held “reasonable” and the courts may judge interpretations.

Commons took the validity of compromise as his basic principle because he lacked a rational theory of value, an evidence-based criterion of judgment. Thus he arrived at five “principles of explanation” which determine the complex of transactions: They are prescient but amorphous and non-generic.

1) efficiency “in terms of managerial transactions, measured as the rate of output per unit of input, the man hour.” Commons viewed this as a relation of man to nature. He was never quite clear as to what was put in and what came out. He finally decided about what Marshall said: labor and materials went in and commodities came out. He found no way to measure both other than utility, despite Veblen’s fatal attack on it. But he did think efficiency was determined by technological aspects of management--use-value in engineering terms.

2) scarcity “in terms of bargaining transactions, measured as the rate of proprietary income from other persons relative to the rate of proprietary outgo, measured by the dollar.” Commons viewed this as a relation of man to man. Without the instrumental-ceremonial distinction between the functions of institutions, this is about all he could do--with the added explicit recognition that the sets of relations are inseparable aspects of the economic process. Of course both producing for use and bargaining for scarcity involve man-man relations--the institutional structure. Commons thought the two could be harmonized through collective action resulting in a “reasonable” economy retaining capitalistic motives.

3) working rules (customary behavior) compel individuals. Contract is not “freedom from custom;” rather, it is another custom. It is not rational choices as indicated by the classicists, but plain custom that determines choices in the market--and Commons couldn’t explain how customs come about, or even recognize as did Veblen that that question is the central one in economic theory. Its answer must constitute the theory of the economic process.

Commons did feel the necessity of referential content for his principles, but did not understand the place of ideas in the determination of “customary behavior.” He did not even understand that the significant inquiry is what does determine (bring about) the complex of behavior patterns. But we must give him credit for understanding that institutions are man-made, not natural or imposed by some outside-of-man guide to man’s destiny. He makes man responsible.

4) sovereignty: “the changing process of authorizing, prohibiting, and regulating the use of physical force in human affairs.” What Foster calls mandamus and injunction. Its function is to ration factors and commodities in the economic process--the function accomplished by supply and demand in orthodox theory. The “rationing transactions” determine the pattern of economic power. Commons got coordination of law and economics, since both have a common effect in terms of rationing. But sovereignty works both ways--really through futurity, judging the future correctly and acting accordingly.

5) futurity: the dynamic in the economic process. Transactions are determined by expectations, as for Keynes. But transactions are not repetitive reciprocations within a given pattern. There is no “closed” economy; rather there is an ongoing process, constantly changing. And therefore the indeterminacy of expectation permits continuity of the process because it results in different appraisals--and therefore transactions--which constitute the process. Shades of Marshall: the economy works not because of disagreements and institutions, but because peoples’ expectations differ.

WESLEY C. MITCHELL.

Mitchell adopted “pragmatic psychology” from Peirce, Dewey, and Veblen. His quantitative analysis provided analytic description more than a catalogue, a systematic account of what is being inductively investigated. Problems which are not subject to quantitative statement may be laid bare by statistical treatment of historical data, showing the relative importance of various factors which enter the problem and patterns of fluctuations of those factors. Statistical norms--arithmetic mean, modal average, etc.--can reduce the number of interrelated, concurrently variable functions.

Mitchell said economics “will be less concerned with puzzles about economic motives and more concerned about the objective validity of the account it gives of the economic process ...” Foster says motives are facts in the sequence of events we call the economic process. And if motives are in fact a determinant, can we say that we shall explain the economic process but not consider its determinants?

Mitchell said that economics has in common with all other social sciences 1) “the understanding of human behavior,” 2) “the quantitative analysis of behavior records,” and 3) the ambition “to devise ways of experimenting upon behavior.” He understood that “one who elaborates statistical series in ingenious ways may get as far out of touch with reality as one who excogitates a set of speculative assumptions.” (“Quantitative Analysis in Economic Theory.” American Economic Review, 1925) In the same essay, he wrote “Qualitative distinctions must remain basic in all their [economists’] work.”

In “The Scope of Economics,” Mitchell distinguished between evolutionary and systematic economics. It is a distinction between theory and practice, parallel to the distinction between induction and deduction. He thought--unlike Veblen--that they should reinforce each other, but that neither could substitute for the other. He found economics concerned with four types of inquiries, the first two of which are objective the last two normative--having to do with welfare.

- 1) “the continuous process of providing and using commodities and services.”
- 2) “the making and spending of money,” from family budgets to high finance.”
- 3) personal interests--the “dim inner realm of consciousness,” but somehow excluding motives.
- 4) communal interests in the first two--serviceability to community rather than individual advantage.

He found that all four fields are brought into order by money--the integrator--which forces man to be rational, to make calculable decisions.

Mitchell developed two new tools for the study of business cycles:

1) A new theory of causation he called “analytical descriptions” applying his distinction between evolutionary and systematic theory. Instead of “the cause,” he substituted “the conditions” which result in fluctuations. But his “conditions” which constitute the description are “selective” and “typical.”

2) New statistical techniques to handle the “conditions” at a level of inclusiveness which would permit their concurrent handling.

Mitchell’s general theory of the cycle is that each phase contains the “conditions” strictly within the market economy which eventuate into the succeeding phase--depression, recovery, prosperity, recession. Depression evolves into recovery because stocks of goods are depleted, population continues to increase, new tastes and styles and commodities are developed, and investment demand revives. Recovery merges into prosperity, in the self-generating sense, until costs and growing tension in the investment market becomes obstructive. Recession evolves into depression, and depression proceeds until goods are depleted.

Mitchell was right in working with pecuniary accountancy, but he never realized that he was blocked by the price theory of valuation.

His eclectic theory of business cycles presumes that there are cumulative causal factors in each phase of the cycle that bring about the ensuing phase. First, in the upswing, there is a lag in wages (payments to the factors) behind prices. This results in an opportunity for increasing rates of profits. However, as this proceeds, surplus labor is absorbed and the less efficient units are brought into use, and wages go up in relation to the productivity of the labor purchased. Second, the lending capacity of banks is approached, and banks raise the interest rate. Third, the prices of raw materials begin to soar, especially as each raw material approaches its physical limits. These increases result in a narrowing of the profit margin, which results in a constriction of banks' willingness to lend. Then businessmen make a strong effort to attain liquidity by selling immediately as many goods as possible. To do this, they have to reduce prices. Reduction in prices makes it more difficult to get liquid, and it gets worse. The same cost factors that lagged going up also lag going down. Sticky prices cause the depression to deepen. This continues until:

1. The banks get too much "stock" on hand, so they lower the interest rate.
2. Wages fall below the immediately past normal relationship to prices.
3. This continues until the prices of raw materials fall sufficiently to enable them to be used in production profitably, possibly.

Then, Mitchell says, you're on the upswing again, in view of the profit margin newly arrived at. Thus there is a true cycle inherent in the economy.

JOHN MAURICE CLARK.

Clark was uniquely imbued with received doctrines because his father John Bates Clark was a Neoclassical theorist--far and away the most able. But as the son attained maturity, he came to recognize that something had to be done with the received theory. He set out deliberately to find out what that was. His best treatment of the ideas which comprise the American contribution are to be seen in Studies in the Economics of Overhead Costs, published in 1923. He stated as his purpose "to come to grips with the dynamic movements and resistances to movement" which characterize the organic economy in its modern state of development.

The son criticized his father's concept of capital. J.B. Clark developed the concept of capital as nonmaterial and immortal. Capital changes its form from ships to tractors to sealing wax. It can be created but never destroyed; it is something central to civilization itself. Its physical evidences, like plant and machinery, are temporal. But the key to civilization itself is the development and accretion of the means of providing the means of life--and thereby the quality of life. The means of providing the means of life are primarily know-how--the technological continuum--which is immaterial.

J.B. Clark asked how capital accrues and what determines its quality? What determines the character of production and its level? His answers were a compelling presentation of the neo-classical general theory.

J.M. Clark accepted the concept of capital as nonmaterial and immortal, but began to notice discrepancies between the analysis and the run of the facts. He began his attack with the problem of wages, because of their impact on civilization since most people live from wages. He found it strange that his father and all teachers in the world considered wages a cost, since labor is the embodiment of a large part of human experience itself. He thought about what it really costs a community to carry on the economic process, trying to get at what Keynes called user costs--the only costs to the community at large since all other "costs" to individuals are really income to the community. If Clark had started directly with user costs rather than overhead costs, he probably would have gotten farther in his analysis. But he did get beyond

prime costs of orthodox analysis--profits, rents, wages, etc. that constitute income--to some notion of the residual costs to the community.

Clark recognized that labor is not a cost in the economic sense. Inefficient or mistaken use of labor costs the community, but efficient labor is one of the rewards of life. It was thought, for example, that we could produce a lot more goods if people would just work longer. The pecuniary accountancy makes it seem that the community has a choice between leisure and efficiency. Clark suspected that this analysis of the labor problem was incorrect. He started thinking about the social benefits of maximum hour legislation and minimum wage legislation--ideas of growing importance. In textbooks today, authors prove in their principles chapters that the only way efficiently to organize labor in relation to other factors of production is through market-driven wage bargaining. Then in their problems chapters they propose solutions such as minimum wages already disproven theoretically.

Working longer hours means giving up leisure for the worker, but not for the community where the work increases rather than decreases alternatives. Clark suspected that the Neoclassical theory was wrong to claim that alternative choices of the community parallel those of the individual. It is true that if you buy or produce a recording machine, you cannot with those funds as an individual, or with those factors as a producer, buy or produce brief cases. The choice of one causes the other not to exist. By assuming full employment and a productivity theory of wages, the classicists asserted that a community faces the same alternatives. Clark came to the conclusion that the classicists were wrong, and his thinking here is prescient of the multiplier. In view of the inclusive character of overhead costs, he recognized that the fact of depression requires the community to take responsibility for maintaining aggregate demand. The fact of depression shows that the free market process fails to determine the allocation of factors.

Clark's analysis led him to conclude that the large amounts of fixed capital prevent the attainment of equilibrium in the classical sense. If there weren't so much fixed capital which must be paid for, maintaining effective demand would become a minor problem. Given our theory of accounting, which comes out of the Neoclassical economic theory, it is necessarily the case that the period of payment for fixed capital be shorter than the productive life of that capital. If asset life and accounting payments were co-terminal, Clark thought, the community would not have a problem--reminding one of underconsumption analysis asserting that you have to withdraw from the stream of effective consumer demand to pay for fixed capital. Clark should have rejected that conclusion because his analysis suggested that raw material and labor are not overhead costs. Foster says the trouble is not that the economy cannot attain classical equilibrium; it is always there, by definition; and we don't want it--it is beside the point. It means commercial efficiency and, as Clark saw, that does not lead to economic efficiency. We must replace the price theory of valuation--commercial efficiency--with the instrumental theory of valuation.

Clark tried to apply the Veblenian distinction when distinguishing "commercial efficiency" from economic efficiency, which he called "social values." He was trying to get at the continuing factor Foster calls "value"--the criterion of judgment--but used the word "values" which are things we hold dear. They refer to temporary situations rather than to continuing conditions, and thus cannot serve as ground for judging what is good and what is bad. "Social values" are created by non-market institutions; they may be intangible assets such as a patent created by legislation. Market--exchange--values cannot be determined by alternative utility of the marginal unit because it would destroy the economic process, as in the case of railroads. Rather, for Clark, the unit exchange value comes from the contribution to social value--an offhand acceptance, after disproving it, that the market process brings exchange value into some kind of tolerable approximation to social value.

Clark is really saying that the whole concept of exchange value embraces things created not by some natural order but rather by institutional adjustment. They are institutional, not technological, matters. He says what ought to determine exchange value is contribution to the social process. We need, therefore, a new accounting system to indicate social values as a parallel check against the business accounting. We need an accounting system to show the actual contributions of any and every economic enterprise. Clark thus gets closer to a comprehension of the theory of value, as subsequently expressed by Ayres, than any of his predecessors.

What Clark is getting at under the caption of "variable costs" is identifiable specifically in terms of institutional inefficiency, and only there. It is identifiable only in the ceremonial functions of institutions. What he calls "overhead costs" Foster says don't exist. But what he is getting at are the real costs that Keynes conceived as user costs, costs that are experienced anyway. For example, one could certainly start off with subsistence as an overhead cost in that relationship--it is there whether one produces or not. Beggars who are getting subsistence are a cost to the community as much as workers receiving a subsistence wage. Clark did not realize that cost is a function of value--the destruction of value.

Clark made the same mistake as the classical theorists by raising the experience of the individual to the level of the community. There are not two kinds of value--personal and social--but the data are different. The alternative choices to the individual are not the same as to the community.

Clark applied the American philosophical development we used to call modern pragmatism--the word has lost all meaning now--when he pointed out that wants may be good or bad. Now in the neo-classical formulation that is impossible and nonsensical. It is no concern of economists whether a want is good or bad. That judgment is determined by operations with which the economist is not and cannot be concerned.

It has always sort of amused Foster that scientists who establish the normative-positive dichotomy insist that, because they are scientists, they can't carry out other operations. They can't tell the difference between good and bad, but since the difference exists the rest of the community must tell them. It makes us look on scientists as children--naive. They know many things but are just like children when it comes to good and bad. Foster finds this plain silly: what science is is the study of good and bad.

Clark said that "the goal of the scientific method is the uncovering of economic truth." And the economic truth includes judgments between good and bad wants. Thus, economic analysis involves more than price analysis.

John Gambia's Beyond Supply and Demand [Columbia University Press, 1946] is simply stating in an inferior and confused way what Clark had stated twenty years earlier, that the determinants of the economic process are beyond price theory. The determinants lie in the operations that eventuate into decisions regarding good and bad wants, and the institutional devices for the satisfaction of those wants.

Thus you will find in Clark a peculiar double play. When he says that each generation must "discover anew the essence of economic truth," he is carrying along the Neoclassical dichotomy between individual and social problems in trying to apply the Veblenian distinction. He is seeking to identify the continuing factors, but claims that each generation must discover them anew because their structural appearance changes:

Conditions change; therefore human behavior changes; therefore economic operations change; therefore there are no continuing factors, and each generation has to learn it over again.

He says we must discover anew those things which don't change, but the immediate emanations of which change. And the reason he gets into that paradox is because of this confusion between personal and social problems.

But Clark made clear that the continuing factors cannot be stated in terms of conditions or situations. And their correct identification permits resolution of the seeming paradox of continuing change in the presence of continuity. Resolving that paradox constitutes the American contribution in economics.

5. Keynes and Underconsumption Business Cycle Theory

Underconsumption analysis has an ancient lineage. It goes back at least to Malthus's controversy with Ricardo and his effort to refute Say's Law.

According to Say's Law, the creation of a product distributes its money's worth to the factors. An implication or corollary of this law is that there can be no insufficient effective demand, no underconsumption. According to Malthus, however, goods exchange not for goods but for money; hence, there can be ineffective demand.

Classical analysis took the position that $S=D$; thus there could be no over-saving. Savings in the aggregate do not decrease consumption in the aggregate. (This was held by Smith and Ricardo and up through Senior; the neo-classicists did not hold this.) Only the capitalist decreases his consumption.

Today, underconsumption theory usually takes the form of the tendency of the supply of goods to outrun the purchasing power, due to inequality of income. Keynes, rejecting the corollary of Say's Law, reached the same conclusion as the underconsumptionists--that the forces of the market, without interference, lead to insufficient demand, i.e., depression. But he differed with them on the reasons and, therefore on public policy.

MALTHUS

Malthus centered his attack on the problem of unemployment. Sufficient effective demand cannot come from wages or there would be no profits, nor from profits or there would be no savings, so it should come out of rent.

Savings, according to Malthus, resulted in additional production while at the same time it decreased effective demand. Businessmen are just too busy to spend all their income in a time of prosperity, which tends to cause depression. In times of depression they spend more than their income, which gives an impetus toward prosperity. Thus he got a cycle.

The central substance of the argument hasn't changed much since Malthus: it is inescapable that there should come about a deficiency of effective consumer demand, because if any income is not spent either for consumption or investment, there will not be enough spent to clear the price tags because the sum of the price tags includes prime cost, supplementary cost, and profit. People do not spend all of their income; something is wrong with our institutions that this is so. The market process provides no way to maintain continued sufficient effective consumer demand, because it makes it mandatory that individuals not spend all of their income in the period of its receipt.

The central core of underconsumption theories takes exception to the classical tradition that there is no motive for holding money as such. They take exception to the Marshallian theory that money has no utility. Underconsumptionists say that it's true that money has no utility as such for the community at large, but to the individual it gives satisfaction to have money. They get a concept of the diminishing utility of money in contrast to the classical theory of the constant marginal utility of money. They get the answer that the difficulty lies in the inequality of distribution of money. They get the idea of incentive taxation.

The comparative rigidity of prices (or elasticity) causes insufficiency of effective demand. If prices always varied directly with the purchasing power needed to recover the goods from the market, the underconsumptionists would have a very difficult time supporting their position.

The classical theory of the rate of interest is a concept of the demand for and the supply of savings (brought into equality by the rate of interest). The underconsumptionists agree except as to the shape of the supply schedule of savings. Keynes disagrees with both.

As long as there is a positive rate of interest, people build up prices of established debts, and there is hoarding. This is the underconsumptionist position. But this very activity decreases the rate of interest.

From 1933 to 1936 our country was using the balance-the-budget theory of the classicists. It didn't work. Then we tried the underconsumptionist theory: don't balance the budget. It didn't work too well either. The classicists said $Y=C + I$. The underconsumptionists said, no, $Y=C + I + H$ (hoarding). Then Keynes came along and said $Y=C + I$. Since Keynes came out we have been applying his theory even when we don't admit it. So are all the other countries, including Mexico.

KEYNES

Keynes and the underconsumptionists agree that depression is caused by a deficiency in effective demand. Their reasons for the deficiency, however, are different. The underconsumptionists say that saving is greater than investment. Keynes says that *efforts* to save might reduce effective demand. He holds that production does not create sufficient effective demand to maintain that level of production. Things may be produced which can't be sold. If products are sold by virtue of a decrease in price due to a decrease in effective demand, the rate of production and employment (N) will diminish.

Comparison of Keynesian theory with underconsumption theory:

Similarities:

1. A free market does not work out to maximize production.
2. Both claim to present continuing and inclusive factors with the universe identified—the market process.
3. Both constitute a theory of depression.
4. Both think there is some unique relationship between saving and investment.

Differences:

1. Underconsumptionists get a deficient effective demand through over-saving—hoarding, that is. They identify income, saving, and investment as quantities. Keynes says this doesn't solve our problems; to be significant in analysis they must be identified as rates. This is very important. The propensity to consume, e.g., is the ratio between two rates. That's the only way it can be meaningful.
2. Relationship between saving and investment. The underconsumptionists say that investment comes out of saving; Keynes says no. The persons who invest have no identity with those who save. Here he agrees with Hayek: Those who purchase capital assets are not those who save.
3. Both are looking at the rate of effective consumer demand; both agree that the demand for capital goods is derived from that. But Keynes says that it is by virtue of the fact that $S=I$ that you can have depression; the underconsumptionists say that you have depression because S is not equal to I. (The classicists say that you can't have depression because $S=I$.) Those who decide to save are not the same as those who decide to invest, but saving and investment are necessarily equal. When the sets of circumstances that determine each are not in harmony, we have fluctuations—Keynes. Decisions to save reduce income, and that's what constitutes depression.

Under-consumptionist and Keynesian theories hold that depression comes about through the failure of the market process to provide for effective demand. In this they are in contrast with the other theories which hold that depression is caused by something outside of the market process. But Keynes differs from the underconsumptionists in that the latter say that a

diminution in effective demand comes about through hoarding. Keynes says that a diminution comes about for other reasons.

OUTLINE OF *General Theory of Employment, Interest and Money*.

1. As employment increases, aggregate real income increases.
2. As income increases, consumption increases but less than the increase in income.
3. Therefore, if the whole of the increase in income were devoted to the purchase of consumer goods, operators would suffer a loss.
4. Therefore, there must be an increase in investment equal to the difference between the increase in consumption and the increase in income.
5. Therefore, given the schedule of the propensity to consume, employment will depend on investment.
6. The rate of investment depends upon the expected net income to be derived from investment and the amortization of the funds invested. (It depends upon the relationship between the marginal efficiency of capital and the rate of interest.)
7. There is only one level of employment consistent with equilibrium. Therefore, the level of employment in equilibrium depends upon: (a) the marginal efficiency of capital, (b) the rate of interest, and (c) the propensity to consume.
8. Given the schedule of the propensity to consume and the schedule of the inducement to invest, there can be only one level of employment consistent with equilibrium.

Terms:

Aggregate Supply Function is the relation between the aggregate supply price and the level of employment N . It is the money return the entrepreneur must expect to gain to induce him to produce an additional unit.

Effective demand is income. Keynes' attack is in the question, "How do you get voluntary savings?" How can effective demand be greater than effective demand? For capital formation to come out of voluntary savings, it would have to be. It really comes out of credit. We get positive capital formation all the time, through bank credit. Then the question is asked, how do entrepreneurs pay it back? They don't. If one does, another acquires the debt. There is no way to pay off debts for the community at large. Individually, debts are paid—one pays his debt, and another acquires one.

Propensity to consume equals the proportion of total income spent for consumption.

Multiplier equals the reciprocal of one minus the marginal propensity to consume. The difference between the marginal and the average propensity to consume often gives the naïve student the idea that there is something wrong with the multiplier. The marginal and the average propensity vary in the same direction but not at the same rate. In a poor community the multiplier may be no higher than in a wealthy. A community may tend to hold additional income—that is, spend it for neither consumption nor investment. It may have a very high average propensity to consume but a relatively low marginal propensity to consume. In a high-income community the average propensity to consume is always lower than in a low-income community, but the marginal propensity to consume may be higher.

Marginal efficiency of capital equals the rate of discount that would bring the series of annuities expected from ownership throughout the life of a capital asset into equality with its supply price; or the ratio of expected yield to supply price. This concept is useful because it gives you a way of determining capitalization. In pre-Keynesian analysis there was no way of determining the value of land according to capitalization. Now, in assessment, true or real value is in Keynesian terms.

The difference between the marginal efficiency of capital and the rate of interest: the former is a function of the yield of a capital asset; the latter is a function of the yield, carrying cost, and liquidity premium of a commodity. Does money have a marginal efficiency? That is, can “marginal efficiency of capital” refer to money capital? No.

A=receipts from sales

Y=income in money's worth of those things that have come into existence during the period minus what you used up in making them.

U=user cost=money's worth of those things that are used up by virtue of producing Y.

Before we know how much capital formation is during a period, we have to take out user cost. How do we know how much it is? It is conceived as the difference between what the entrepreneur has and what he could have had if he hadn't produced. It's a little fuzzy, but the entrepreneur can calculate it. But our bookkeeping methods don't account it—part of it isn't necessary to business operation from the viewpoint of the entrepreneur. What Keynes is saying is that capitalism is a credit kind of economy, that you can't have capitalism without credit. Credit can be either bank credit or printed money. Thus his theory is not destructive of capitalism but is in fact the only explanation which admits of its existence.

$$Y=A-U \quad Y=C+I \quad S=Y-C \quad \text{Therefore } S=I.$$

EMPLOYMENT

According to Keynes, if the classical supply and demand theory of employment held, you could increase N in four ways:

1. Reduce frictional unemployment.
2. Decrease the marginal disutility of working in order to decrease voluntary unemployment: decrease social insurance, etc.
3. Increase real wages by a reduction in the price of wage-goods: increase marginal physical productivity of labor in the wage-goods industries.
4. A rise in the price of non-wage-goods relative to the price of wage-goods, which would result in #3.

Keynes sets out to prove that this theory requires both an increase and a decrease in the price of wage goods in order to increase N, and you can't have both. He is right.

He has two objections to the labor supply curve:

1. Labor does not respond to a change in real wages as it does to a change in money wages. As money-wage rates go up, real-wage rates go down. What you get is an increased offering of labor with an increase in disutility, which is incompatible with the classical theory.

2. There is no expedient whereby the laborer can adjust his real wage. The market process offers no way. Bargaining between employer and employee does not determine real wages, although it may determine money wages. (The escalator clause is based on Keynesian theory. It may not work out; sometimes could result in a spiral. So long as the firm is not operating at the supply-price schedule, it will work.)

Classical theory says that a reduction in money wages will reduce prices and thus cause an increase in effective demand and encourage entrepreneurs to expand and thus raise the level of employment. Price is the automatic adjustor. Such reasoning comes about by taking the case of an individual entrepreneur and raising it to the level of the aggregate. Keynes says, however, that the two situations are different.

Keynes asks, does a reduction in money wages have an effect on the level of employment, given the three independent variables? This is an illogical (a nonsensical) question, because there can be no effect without an effect on these three variables, which are the determinants of employment. This is similar to the question the classicists ask on that score.

Does a reduction in money wages have an indirect tendency to affect employment as a result of its effect on these three independent variables? Keynes asks, first, what would be the effect on the propensity to consume of a reduction in money wages? Income would be redistributed, from wage-earners to (1) the rentier, (if prices have been reduced in proportion to the fall in money wages), or to (2) the entrepreneur (if prices have not been so reduced). So there would be a decrease in the propensity to consume. Second, what would be the effect on the marginal efficiency of capital? The immediate effect could be to raise expected proceeds, but the expectations could not be realized, unless the propensity to consume were 100%. And in fact the propensity to consume goes down, so the marginal efficiency of capital goes down in spite of expectations. However, the question of foreign trade enters. Investment by foreign countries might go up. The total effect on the marginal efficiency of capital then depends on whether entrepreneurs expect the money wage to go down more, stay the same, or bounce back. If the last, the marginal efficiency of capital will go up. If the first, the marginal efficiency of capital will go down. So the answer to this question depends upon expectations for the future. Usually, however, when wages go down there is an expectation of a further fall, so a fall in the money wage results in a fall in the marginal efficiency of capital.

A reduction in money wages would reduce liquidity preference (through the transactions motive), which would reduce the rate of interest and therefore increase the inducement to invest, and therefore the level of employment, unless a further drop in the rate of interest is foreseen, in which case liquidity preference (the speculative and precautionary motives) would go up and the rate of interest would go up and the inducement to invest would go down. In other words, if the reduction in the rate of interest is thought to be terminal there will be a rapid rise in investment, but if the reduction in the rate of interest is a trend investment will go down. People just wait until it hits bottom.

We are in part stymied by this because we can't change the rate of interest on old debts. Even if we could, a reduction of interest rates could be brought about more easily than by reducing money wages. Do it rather by increasing the quantity of money.

Envision two enterprises with both supply and demand for N sloping upward. Both supply and demand are expectations, but supply is what the employer must expect to receive in order to hire a certain number, in contrast to demand, which involves what he does expect to receive. With $\$$ on the vertical axis and N on the horizontal axis, the supply schedule Z and the demand schedule D both slope upward, but the supply schedule is steeper. The point of intersection indicates the level of N and the wage.

This is a picture of the Keynesian theory of employment; the shape of these schedules is very important. A good study would be on the shapes of these schedules for various enterprises, to see which enterprises it would be most effective to underwrite. Dropping the supply function in #1 would have much more effect in increasing employment than dropping the supply function in #2.

Keynes' position is that you can't have full employment because you reach inflation first.

Apply of the principle of the multiplier and of acceleration to the problem of employment: Employment is 50 million, and we want it to be 60 million. Income is \$150 billion, so it will have to be \$180 billion. The marginal propensity to consume is 75%, so the multiplier is 4. Then is the answer to spend \$7.5 billion? We want this increase to come about within a year, and Keynes says nothing about how long it will take for the multiplier to work. We must bring into the problem the principle of acceleration.

As effective demand is increased in conditions of unemployment, both prices and production (employment) will go up. It is not easy to establish the point at which production ceases to go up and price only goes up. It will be somewhere before full employment is reached.

It is not easy to determine national income. How do we know that employment is going up or going down?

Keynes and Ayres don't attempt to calculate money income. They would solve the problem through the level of employment. You can count the number of people employed.

Keynes forces you to the conclusion that you can export your unemployment. He and the mercantilists are in agreement in that. (Where they disagree is that money is wealth.) So Keynes' theory is sometimes called "neo-mercantilism." You can produce goods and give them away and make your own country rich. A favorable balance of trade in the long run means giving goods away. And in conditions of unemployment it helps our economy.

DETERMINANTS OF THE PROPENSITY TO CONSUME:

A. Objective factors, discussion:

1. The propensity to consume varies directly with the wage unit, which is the same as saying that a rise in the cost of living causes a greater amount to be spent on consumption.
2. [Missing]
3. Of some importance in the short period: Cost is not brought into consideration; such gains are uncalculated. "Easy come, easy go." Windfall losses have similar treatment, in reverse. This result contravenes the propensity of the community at large. It is limited to a small segment of the people and to a certain specific time. (Speculation is the expectation of gaining a return through a variation in price.)
4. Not particularly important except insofar as they affect the price of capital assets (windfall gains and losses). Indirect result only. Savings vary inversely with the rate of interest, not directly as the classicists hold. The classical theory conceives of interest as the price of saving, or that price that equilibrates the demand for and the supply of savings. In fact, when interest goes up investment goes down. Therefore, the classical theory, which holds that a rise in interest would cause a rise in savings and investment, is not right. Keynes: what people pay for by interest is the use of money. They pay someone to part with liquidity and to purchase a debt. So interest equilibrates the supply of and the demand for money. (This last statement is unfortunate.)
5. A tax on large incomes, e.g., will increase the propensity to consume. Sinking funds will lower it. Also retiring bonds, selling securities by Federal Reserve banks, and putting money in vaults.
6. Changes in the expectations of the difference between present and future incomes. If he expects the latter to be higher than the former, his propensity to consume will be higher.

B. There are two categories of subjective factors determining the propensity to consume, one for individuals and one for corporations.

SAVING AND HOARDING

The only way a community can save is to invest. Investment is capital formation is debt. Then the only way you can save is to go in debt.

Keynes takes the position that you can increase savings by taxing income. The classicists say that the rate of saving determines the rate of investment. Keynes says no, the amount of investment determines how much can be saved. Both, of course, hold that $S=I$. Keynes says that under the classical assumption there could be no depression. The determinants of savings (and therefore investment) are in the decision to invest, not in the decision to not consume or to save.

In the underconsumption analysis, hoarding is thought of as the part of income not spent for consumption or investment. But income is receipt from sales. You can sell consumption or investment goods. What is hoarding a receipt from the sales of? It can't exist.

Individually, you can hoard. That is, you can receive income that you don't spend for either consumption or investment. But by the amount that you hoard, someone else goes in debt, and for the community at large hoarding is zero.

INVESTMENT

Investment is expenditure made with the expectation of gaining a return. It is the expectation of change, not the quantity of funds, that is important.

The inducement to invest is a function of the rate of interest and the marginal efficiency of capital. The latter is the ratio between the prospective yield and the supply price. The prospective yield, A-U, is symbolized by Q. Add up Q1, Q2, etc., and you get the prospective yield. (The supply price is the price necessary to induce a producer to produce an additional unit of capital; it is not the market price.) The ratio between prospective yield and supply price gives us the marginal efficiency of capital. The schedule of the inducement to invest is that schedule that will bring that ratio to unity. The rate of discount that will bring the prospective yield into equality with the supply price is the marginal efficiency of capital. (The marginal efficiency means the efficiency of each additional unit. It doesn't refer to aggregates.) The extension of investment in any particular capital asset causes the marginal efficiency of capital to decrease, although the aggregate efficiency increases. The schedule of the marginal efficiency of capital will not alone give us the rate of investment.

Investment flows toward those industries in which the marginal efficiency of capital is highest. A schedule of the marginal efficiency of capital of all industries will give you an investment schedule, but you still don't know what investment will be because you still don't have the rate of interest. Investment will continue as long as the investor thinks he can make more money there than elsewhere. The entrepreneur can hold his money in case, or buy an existing debt, or buy capital assets.

The multiplier is the ratio between the increase in income and the increase in investment that occasioned that increase. It is the reciprocal of one minus the marginal propensity to consume.

The difference between the classicists and Keynes on this point is that the new expenditure never disappears, according to the classicists. If an additional dollar is invested, it continues to be spent in full. The multiplier is infinity, and the ratio of acceleration is unity. Keynes says this isn't true, because people don't spend all they receive.

Without knowing the time it takes for the multiplier to play out, you don't know how much is required to raise the income a certain amount. If you know the ratio of acceleration, you know how much you have to spend. The multiplier gives you aggregate income; the ratio of acceleration gives you the rate of increase of income.

THEORY OF INTEREST

Both the classical and the Keynesian theories of the rate of interest could stand a little investigation. They're both complete, but both suffer from difficulties.

Every asset has a rate of interest—the "own rate." The own rate of money is the rate of interest. If the own rate of wheat is greater than the own rate of money, people will prefer to buy wheat. In order for people to buy any asset, therefore, its own rate must be greater than the rate of interest. Otherwise, people would prefer to hold money, because:

1. Its carrying costs are low.
2. It doesn't depreciate.

The own rate of money is generally the highest own rate. It is the rate equal to the marginal efficiency which other assets must attain in order to sell. It is chiefly a matter of liquidity: people will hold a capital asset the marginal efficiency of which is below the rate of interest, but they will not hold a good the own rate of which is below the rate of interest.

The rate of interest is therefore the most important own rate, for the above reasons. Another reason is its low elasticity. In this sense it is different from other commodities. You can't go into the business of making money. The power of the bank to produce money is set by law as to quantity, and so the incentive for making money doesn't work the same as the incentive for making automobiles.

The money rate of interest is usually higher than other own rates because:

1. Low carrying cost and depreciation.
2. Low elasticity.
3. There is no substitute for it. Its use value is determined by its exchange value.

Keynes's criticism of the classical theory of interest brings up two points:

1. Observation shows that we do not have an increase in the rate of saving when we have an increase in the rate of interest. Rather, the rate of saving decreases.
2. Then what does equilibrate the demand for and the supply of savings? The rate of interest does not; it is a payment for parting with liquidity. It would seem to follow that the inducement to invest is that schedule which would bring the marginal efficiency of all types of capital into equality with the rate of interest. The rate of interest equilibrates the demand for and the supply of money. Three determinants of demand:
 - a. The transactions motive.
 - b. The discretionary motive.
 - c. The precautionary motive.

The rate of interest is, in fact, sometimes low at the bottom of the cycle and sometimes high. It does not have much effect as such on the amount of investment. It has effect only indirectly through its effect on the marginal efficiency of capital.

The distinction between Keynes' and the classical theories of the rate of interest. (Both are supply and demand theories.)

1. The classicists say that interest is payment to induce people to save. Keynes says it is inducement to people to part with liquidity.
2. The classicists say that interest is a price equalizing the demand for and the supply of savings and that the demand for savings is the same as the demand for capital. Keynes says the demand for capital goods and the demand for savings are dependent variables. Both depend upon the propensity to consume, the rate of interest, and the marginal efficiency of capital. The amount of cash that people choose to hold, according to Keynes, is independently determinant of the amount of investment that people choose to make. The demand for capital is in part dependent on the rate of interest. The classicists consider the demand for savings as the same as the demand for capital. Keynes does not.
3. The classicists hold an automatic (or at least unique) investment of savings. Keynes holds that they overlook the effect on income of not spending for consumption or investment. (Keynes did not hold that an increase in the quantity of money automatically reduces the interest rate, although it would appear from this that he might. But there are necessary and concomitant events on the other side of the equation. A change in the quantity of money affects all three independent variables.)

Investment will continue until the marginal efficiency of capital is equal to the rate of interest, and no further. The investment demand schedule is the aggregate for all types of assets, which will

bring each of the marginal efficiencies of capital into equality with the rate of interest. The investment demand schedule is the demand for capital. It varies inversely with the rate of interest, given the marginal efficiency of capital.

The classical theory holds that a higher rate of interest results in more saving and thus in more investment. Keynes says that a rise in the rate of interest results in a drop in the rate of investment and thus a drop in the rate of saving. The latter is in fact the case. Therefore, the rate of interest is not the payment for saving, as the classicists hold.

Ceteris paribus, an increase in the quantity of funds would result in a lower rate of interest, which would result in a higher rate of investment. (In fact, there are other factors which may prevent a fall in the rate of interest in response to an increase in the quantity of money. That is, "other things do not remain equal.") Thus, burying funds in the ground for people to dig up is better than nothing in a time of depression. But building a hospital is better. Here he differs with the underconsumptionists. Keynes says you get additional purchasing power and the hospital too (which is a capital asset.) The underconsumptionists would say that building a hospital would give rise to too much saving. It would increase consumer demand but would also increase saving, and saving tends to be too high.

LIQUIDITY PREFERENCE AND QUANTITY OF MONEY

Increasing the quantity of money doesn't affect whether people hold it or not; they hold all of it all of the time. But the demand for money changes.

Determinants of liquidity preference:

1. Transactions motive. Enough money to carry on business. Two factors: (a) carry on current transactions, (b) take care of current expense before receipt of money payment for sales that are being made currently. Transactions funds vary directly with income.
2. Precautionary motive. Desire to be secure in meeting expected and unexpected expenses in the future. Also to be able to take advantage of some suddenly appearing opportunity to gain (a bargain or something.) Varies directly with Y .
3. Speculative motive. The object is to secure profit from knowing better than the market what the market will do. Knowing what changes will occur as a result of expected changes in the rate of interest. (You can shift only in differential liquidity, not in aggregate liquidity.) Expectation of gain through a variation in price. It is different from investment--expectation of gain through the use of an asset--and from gambling in which gains and losses exactly offset each other; in speculation, this is not necessarily true.

Quantity of money (supply of money) depends upon 1. Central banking policy and 2. Government fiscal policy.

The supply of money is not determined by abstention from consumption but by the above-named factors. This is very significant. If investment is not a function of abstention from consumption, many answers may turn out to be different than previously supposed.

If everyone tries to get liquid, the interest rate rises. Banks would probably then be inclined to supply more funds, that is, to create money. Individuals are the same as banks in increasing supply insofar as they make available more of what they hold. The difference is that when banks lend they cannot make use of what they don't lend, while when individuals lend they can make use of what they don't lend. The lending power of both is reduced, but the kind of liquidity preference is different in each case. The motives for liquidity preference would seem to be a little different in the case of banks than in the case of individuals. The transactions motive doesn't apply to banks; all they need is enough money for day-to-day transactions, and they can get this from the Federal Reserve Bank. The precautionary motive applies to both, but perhaps a little differently. The speculative motive is probably identically applicable.

THEORY OF PRICES.

Take off from the quantity of money theory. If effective demand varied directly with the quantity of money, then, "So long as there is unemployment, employment will change in the same proportion as the quantity of money," etc. If there is full employment, price changes. But there are some difficulties in this. Keynes explains prices, then, as a deviation from Fisher's equation, by virtue of some complicating factors:

1. Effective demand does not change in direct proportion with the quantity of money. Liquidity preference also affects effective demand.
2. Resources are not homogeneous, so there will be a decreasing rather than a constant return as employment increases and you get an increase in price before all factors are employed.
3. The factors are not interchangeable. There is very little mobility in terms of interchangeability. This results in a rise in price in some areas while there are unemployed units in other areas. Bottlenecks can occur without any increase in the quantity of money.
4. The wage-unit will tend to rise before full employment is reached.
5. Remuneration of the factors at the margin does not change in the same proportion as an increase or decrease in the quantity of money. Marginal productivity varies in different firms.

Thus the theory of prices might be stated a little differently. An increase in the quantity of money will raise both employment and prices, and as you approach full employment the increase in prices is at a faster rate than the increase in employment, and you approach true inflation. So inflation keeps you from full employment. On the other hand, it affects the ratio between the rate of interest and the marginal efficiency of capital through its effect on prices.

What is the relationship between the rate of interest and price? Is there a peculiar, functional relationship? Or can we say no more than what Keynes says? Primarily, the effect of the quantity of money on price is through the rate of interest.

Why do you hit true inflation before full employment? Resources are not homogeneous; they are not completely mobile. You will hit bottlenecks in certain areas because of some stoppage of supply (labor, land, or something), and prices will go up in those areas. Certain commodities can command terrific prices. In Keynesian theory, here is the connection between monopoly and inflation. Monopoly makes the bottlenecks appear sooner in relation to the level of employment—the less close you can get to full employment. Monopoly is in a position to increase prices. In effect, monopoly is a bottleneck—a way of increasing prices rather than production.

In fact, you can't hit true inflation; it means a price level of infinity. You reach neither full employment nor true inflation. First, you hit such a degree of inflation that the economy can't operate. It breaks down before you hit true inflation or full employment. [But it is due to approaching true inflation, not to approaching full employment.]

Last year [1948] when the production and consumption of wheat were at an all-time high, there was more of a glut of wheat than at any other time—a substantiation of Keynes' theory. In fact, the rate of investment turns up after an increase in income. This too supports Keynes. The better things get, the better you expect them to get, and the worse they get, the worse you expect them to get. The underconsumptionists say that the inducement to invest is greater when consumption is low, because people expect things to get better. And the inducement to invest is lower when consumption is high. That's not true.

In Keynes, something outside the market process has to happen to increase income. In the market process, things would just keep on getting worse. Credit is outside the market process. The quantity of money is determined by government fiscal policy and central banking policy, both of which are determined independently of the market process.

6. "Preface"
H. Gordon Hayes,
Spending, Saving and Employment.
Knopf, 1947.

The inducement to invest is the locus of recent economic analysis. Irregularity of capital investment is generally held to be the real cause of unemployment. As a consequence of this approach, and there is sufficient unemployment to maintain remedial action, proposals usually take the form of direct efforts to induce new capital investment.

Professor Hayes challenges this thesis and its concomitant policy. He does not challenge the thesis that employment can be and is increased through new investment; what he does challenge is the dictum that failure or irregularity of new capital investment is the real cause of unemployment.

But, within the market process, the inducement to extend investment involves the expectation of selling the consumers' goods that eventuate from the new capital equipment. And it is at this point that insufficiency first makes its appearance. The very thing that induces new investment seems to be the thing that is lacking when new investment is "necessary." An impasse is apparent. In this situation investment can occur in the market process only when investors act otherwise than as "economic men," either through ignorance of the deficiency of effective consumer demand or through determination to invest even though investment cannot be recovered in the market. Neither case is characteristic of investors. Thus incentives to increase investments cannot arise with the market process. In that process the thing that necessitates new investment is the thing that disinclines the investor toward the purchase of new capital equipment. Dr. Hayes point out that government or "social" investment cannot circumvent the impasse if investment involves self-liquidation in the market. It is not who does the investing that creates the difficulty; it is rather the impossibility of recovering aggregate investment through the market process. Investment cannot create the required inducement for its own continuance. To maintain a given level of employment, if outright and permanent goals are to be avoided, there must be production of goods that do not enter the market. And creation of these goods must cause, during any time period, as much as the amount of money income persons and firms seek to accumulate out of the aggregate money income realized from the given level of employment.,

The aspect of investment-goods production that maintains or expands employment is the fact that such goods seldom are purchased initially out of money income. Most usually they are purchased with bank credit. And the fact that money income is paid out in the production of capital equipment without the current appearance of equivalent price tags does help temporarily to fill the gap in purchasing power created by the effort to accumulate funds.

Expenditure without the creation of equivalent price tags is what is necessary. Consumer-goods purchases satisfy this necessity; capital-goods purchases do not. That is why Professor Hayes centers his attention on the propensity to consume. Social investments of the character of roads, parks, schools, hospitals, et cetera, likewise satisfy this necessity, and that is why considerable attention is paid them. Investment-goods production impacts on the market during its creation, as increased purchasing power; but its appearance and use intensify the difficulty from which its creation allows temporary relief. And that is why attempt to break into the "vicious circle" at the point of investment is not a resolution of the difficulty. Reducing the rate of interest cannot induce increased investment unless there are "fortuitous circumstances"

outside the market process that introduce consumer purchasing power without introducing equivalent price tags. To induce investment by reducing the rate of interest, it must be brought below the marginal efficiency of capital. Professor Hayes' whole demonstration shows that, and this is the crux of the matter, the marginal efficiency of aggregate capital must be a negative quantity.

To maintain--much less increase--employment, the constricting circle must be broken. But where? At the investment point, the introduction of new purchasing power nullifies itself because it, during its life, introduces price tags exceeding the effective purchasing power introduced by its own creation. On the other hand, the introduction of new purchasing power at the consumption point does not nullify itself in this respect; no price tags are created by an act of purchasing for consumption. Then it is here that the constricting circle can be broken, and it is here, therefore, that analysis of the problem of unemployment should center.

But to find the point of entry into the problem does not solve the problem. The question of how to break in at this point still remains.

Private banks can and have created the required purchasing power. But this source has two fatal defects. First, private banks must expect to be repaid. Not only this but they must expect to be repaid more than their creation. Secondly, private banks can hardly afford to create directly consumer purchasing power (make loans to consumers). The first defect results in the banks setting in motion a series of catastrophic events called panic. The second defect forbids the private banking system to introduce new purchasing power at the only point where the exercise of that power does not further intensify the impasse on the market.

The only other funds-creating agency is government. The simple fact is that government is the only agency that can operate continuously at a "loss." As the character of the purchases that government may make, the question must be settled by deliberate planning and must be corroborated at the ballot box. Professor Hayes makes much of this last point, and thus connects his theory of the level of employment with the theory of democratic efficiency. That government must play an increasing role directly in the economic life of a community is no longer a question. The only argument on this point is in respect to the specific character that role shall take.

In support of the major thesis presented here, and for many of its corollaries, Professor Hayes displays much corroborative evidence and great analytical insight. Objection may be taken to the choice of illustrative material or to the manner of presentation and organization, but the real substance of the argument cannot be avoided. Particularly great is his demonstration of the inefficacy of analysis restricted to the inducement to invest. But no less could be said of his positive analysis of the tendency toward depression and of the direction institutional adjustments must take. And much more can well be said of his rich insight into the overall problem and of his warm and sincere concern of a people sorely troubled.

7. "COMPARATIVE ECONOMIC THEORIES: Marshall & Keynes" lecture notes.

Alfred Marshall effected the last reformulation of the central content of economic thought which is still the world's common sense. He elaborated the thesis of Jevons. The neo-classical thinkers shifted from the labor theory of valuation to the price theory of valuation.

The theory of value remains the same in Smith, Ricardo, & Marshall, even though one is measured by labor & the other by price. This shift in the theory of valuation by Marshall's time eliminated one of the most telling kinds of criticism of the classical theory. You can't look at the human heart--at utility--directly, says Marshall. But you can look at price, which measures utility rationally. So economics became almost exclusively a study of price. The economic process is fundamentally determined by utility & disutility, measured by comparative prices, which themselves constitute the only evidence of what goes on in the human heart. So you end up with what you started with. Price came to mean value. A tautology: you explain price in terms of price. It is the only evidence of what you are trying to explain. When you have explained price, you have explained production.

Aggregate S&D functions for Keynes are different from S&D for Marshall, but both are trying to get at the two fundamental economic problems: explaining the level and the character of real income. The differences in individuals' experiences (such as Hottentots & Denverites) are due mostly to these two things.

Behind demand is the principle of diminishing utility: as the rate of accretion of units of a given asset increases, the want satisfaction of each unit of that asset diminishes. Behind supply is the principle of increasing disutility: as the rate of use of an asset increases, the disutility of each unit increases. These are feelings of the human heart. The position of equilibrium is teleological--it is where you are going, not where you are.

Equilibrium of comparative prices is thought to show attainment of maximum utility for the community. The general price level is taken as determined by relative supply of money & of goods.

Marshall integrated real cost with comparative cost through the use of 1) time period analysis & 2) the idea of consumer's surplus.

Time periods:

MARKET PRICE PERIOD (short-short run) is short enough so that there can be no variation in supply, making cost irrelevant.

SHORT RUN is short enough so that supply may be adjusted by changing use but not numbers of factors.

LONG RUN gives time to adjust intensity as well as quantity of factor use. Costs are fully determinate by being brought into equation with price. S&D in equilibrium.

SECULAR TREND includes changes exterior to utility motivation, non-economic factors such as drought, politics, fashion. This prevents the long run from reaching equilibrium.

Consumer's Surplus: "...the price which a person pays for a thing can never exceed and seldom comes up to that which he would be willing to pay rather than go without it: so that the gratification which he gets from its purchase generally exceeds that which he gives up in paying away its price." The excess price one would be willing to give up is the consumer's surplus. Not a surplus of goods or of capital; not the profit of Smith.

Price is determined by the utility of the marginal unit. At a given price, all units but the marginal one provide surplus utility. The community ought to maximize consumer's surplus by reducing price or by raising demand.

Pigou used consumer's surplus to validate monopoly. The fallacy with consumer's surplus is that it remains as inventory and can't be realized as liquidity.

The central problem for Utilitarians was to bring the forces of supply and demand into contact so that a common element--thought to be price--could be identified. Marshall no longer sought the real content of utility, only its market impact. Comparative price doesn't comment on real value, which is "as various as the people who experience it." Liquidity is inherent in a commodity, not value. Real cost is irrelevant, although the cost of abstinence or labor must be calculated. The vertical axis no longer measures utility and disutility, but only utility considered as alternative opportunities.

Marshall boils down to an effort to explain the economic process in terms of price, which is an expression of the utilitarian theory of value. A disutility curve constitutes a supply schedule of constantly increasing cost; a utility curve constitutes a demand schedule of constantly decreasing revenue. Their intersection--equilibrium--identifies the level of employment and of production. This point shows the price per unit & the supply of each factor in its market.

The average supply schedule inclines up in the competitive model because it is a schedule of variations comprised by entry and exit of firms. The individual firm's supply schedule is U shaped, while its demand schedule is infinitely elastic. Gossen's first law holds. You can't bargain or struggle for the market. The struggle is not between sellers but between sellers and the factors of production. No one seller can affect price. The intersection of the marginal unit cost and average unit revenue curves gives the optimum point. It is slightly to the right of the lowest point on the average variable cost curve, so firms are operating under conditions of slightly increasing costs.

Why use S&D? If you're going to use the utilitarian philosophy, this is the way it comes out in human behavior. It is purposeful behavior, not a dance of the atoms.

Marshall didn't foresee monopolistic competition (Chamberlin & Robinson) or oligopoly, but did develop the idea of the representative firm--what all firms would look like in an industry if all were the same. Since they aren't the same, the industry supply schedule is derived from the sum of individual schedules.

What is a commodity? Marshall identified it as all items of which the sale of one affects the sale of the others--using the price theory of valuation. This is clearly unsatisfactory when you get to income theory, because the sale of peanuts really does affect the sale of cars. Veblen permits a satisfactory identification by use of the instrumental-ceremonial. If two items perform the same function they are the same commodity.

For Marshall, equilibrium is stable so long as the determining factors remain stable. He uses equilibrium in both micro & macro analysis. Now we typically use the representative firm as micro. The representative firm is one of Marshall's important contributions.

An oligopolist's revenue schedule is more elastic if the other firms don't act as he does. Then he is more inclined to reduce price in order to increase sales. In enterprises of this sort sometimes you don't find an equilibrium process. Other firms act as the first did not because he did but for the same reasons as he did. It may result that he gets out beyond average unit cost.

How do time periods play into this analysis? In the market price period there is no cost effect. In the short run, cost begins to influence price but is not in equilibrium with demand. In the long run, supply is pushed to equilibrium but you don't spend any time there; it is a point, not a period. It identifies the direction toward which the operation is tending. In the secular trend period, equilibrium itself is moving, giving a "dynamic" reason for never reaching equilibrium.

Veblen criticized Marshallian theory as teleological in nature because it identifies a condition toward which you are going which is an ultimate end. Cosmological theory is often teleological too, having a beginning, an end, & describing only what lies between.

The attribute of teleology relates to time periods. Each period is defined by the characteristics of the commodity involved. The construct of time is the weakest construct in terms of identification. It is very difficult to understand. Physicists have been jarred by the realization that they don't understand time. Einsteinian theory is relative in analysis but assumed a constant. There is a problem here.

In economics we have to use time because we are dealing not with simple quantities but with quantities over time. But time period analysis gets us into trouble. A long run is made up of short runs, but each is differently comprised, so how could the second add up to the first? (E.g., the short run is not affected by price while long run is; at any time, how long have market forces been in play? What are the causal sequences at any given time?) Here is one area in which Marshallian and Keynesian theories are at odds. Mathematically one is expressed in difference equations, the other in differential equations. (In differential equations, is it presumed that a line is made up of an infinite number of points? This is impossible. If not what is the assumption?) Compare Mill's Logic with Dewey's Logic. The American idea of time finds application in the Keynesian theory. It doesn't matter how close one time period is to another--one can't use Mill's principle of proximity or juxtaposition.

You can use the time period analysis validly in a descriptive sense, but can it explain anything? Newtonian analysis doesn't work very well in atomic physics because of this kind of analysis.

Theory of probability: "Certain" doesn't mean "absolute." A lot of problems arise because of the different ways in which Marshall and Keynes use time, even though Keynes doesn't talk about it except in the sense of so much income per year.

The General Theory of Keynes had greater impact on the everyday life of everybody in a short time than ever before in history, because of two circumstances: the economic situation of the world when his book appeared, and the reputation of the man. Everyone uses his symbols & some use his constructs, but the real thing about his theory is its actual content.

Keynes was trying to get at income. He assumed that income and employment of factors vary together. [You might question this; it might be a question of the state of the arts.] The wage unit means the money price of a labor unit. Labor unit means the money's worth of the product of the lowest paid labor. Employment is the rate of sale of labor units; so the wage unit measures the rate of sale of labor units.

The aggregate supply function is the relationship between the aggregate supply price & the level of employment. The aggregate demand function is the relationship between the aggregate demand price and the level of employment. The former means that schedule of how much the entrepreneur would have to expect to receive in terms of price to induce him to offer various rates of production. The latter is what he does in fact expect to receive by virtue of offering sales at various rates. Where they intersect is where you are, not where you are going. The relationship between these two price schedules & the level of N is what constitutes the functions. His whole thesis is an explanation of these functions.

Keynes's is a theory of the proximate determination of income in the instantaneous sense. He identifies three independent variables: the propensity to consume, the marginal efficiency of capital, and the rate of interest. The determination of these is not demonstrated by Keynes, but he does demonstrate their independence of each other. This is important.

The propensity to consume is the ratio between C & Y . The MPC relates to the ratio between increments of C & Y . This is what is at stake because what we are concerned with is variations in these variables and the direction of those variations. There is no time axis here; this is a schedule at a given point in time. It can change over time, but in fact remains fairly steady, enough so to predict with considerable confidence.

For a nation as a whole, aggregate C /aggregate Y need not fall anywhere on the schedule. (Income is a "constant variable" in that it varies constantly--there are no plateaus in income.) If you use the expression "propensity to consume" unmodified, you simply mean C/Y . It is independent not in that it has no determinants but in that it is a function of the mores and folkways of the community; it is "given" as far as the economic problem at hand is concerned. [Does it shift if the rate of interest changes? See below.] Historically the schedule has shifted to the right as Y changes, but not much.

Apparently no one questions directly the independence of C/Y , but indirectly many do. Orthodox economists say C/Y changes if interest rate changes. (If C/Y is independent, S/Y must be dependent). The propensity to save is not independent because two independent variables cannot summate to a constant. Part of the problems in theory have arisen by virtue of the effort to use S/Y as an independent variable, as it is in Marshallian analysis. Econometricians especially do this without considering that C/Y can't also be independent. An individual can save more or less out of a given income, but a community cannot; it changes its income, not its propensity to save.

The level of N is the rate of sale of labor units, which Keynes arrived at by dividing the wage bill by the wage unit. In classical tradition, full employment is assumed. Ricardo's position was that so long as there is any effective D , any labor unit can find a job if it is willing to work for what it is really worth, i.e., what the community is ready, willing, and able to pay. This constitutes the wage rate. In some truistic sense, the classical position is true. What Keynes attacks is its pertinence to the economic process. He says involuntary unemployment exists when the rate of offer for sale of labor is increased to meet an increase in the rate of offer to purchase labor at the going rate or slightly lower. His theory also explains why there is always involuntary unemployment: the upper & lower limits of employment are inside 100% propensity to consume and true inflation.

The second independent variable in Keynes's analysis, the MEC, is that rate of discount which would bring the series of annuities expected throughout the life of an additional unit of a capital asset into equality with the current supply price. Or, the MEC is the current expectation of net proceeds that could be realized by purchase of an additional unit of a capital asset. Or, the MEC is close to the current expectation of profits expected from the purchase of an additional unit. Keynes says it is determined independently of the other variables. He doesn't go into its determinants, but you don't need to in order to know that you will gain more or less by buying a debt than a capital asset. It is institutionally determined.

The third independent variable, and the locus of greatest attack, is the interest rate. He sets up two alternatives to liquidity: you can lend your money or you can invest. The rate of interest, Keynes says, is determined by the S & D for money--a time rate--as distinct from the S & D for saving (a quantity) in the classical theory. This rate equates liquidity preference with the quantity of money. In western society, the central bank & fiscal policy determine M . There is no need to analyze the determinants of liquidity preference to know if it is less than or greater than M .

The real wage rate is how much wage goods the money wage rate will buy.

The three independent variables are all ratios, independent because they can vary--as ratios--in one of two directions, not many directions. Also none is a component of Y . The propensity to consume is the ratio between current magnitudes, while the others are concerned

with expectations. S/Y & I/Y are dependent variables. S & I are dependent upon the propensity to consume.

KEYNES'S THESIS:

- 1) The propensity to consume & the level of Y vary in opposite directions.
- 2) Therefore, the rate of I varies in the same direction as Y but at a higher rate than Y .
- 3) Therefore, given the schedule of the propensity to consume, the level of Y is determined by the rate of I (not I/Y).
- 4) But the rate of I is determined by the relationship between the MEC & the rate of interest.
- 5) Therefore, the level of Y is determined by the relationships between three independent variables. The primary datum, in the sense of constancy, is the propensity to consume.

It is the equation between S & I in the aggregate, and the difference between them in the individual case, that constitutes the essence of Keynesian theory.

Universally, income is defined as consumption plus saving.

Again universally, the part of Y spent neither for C or I is called hoarding.

$H = Y - (C + I)$, or $H = S - I$. The Keynesian position is that $S = I$ & therefore $H = 0$.

Demonstration that $S = I$. Start with the necessary situation of equality between sales and purchases. Out of sales & purchases, in order to receive income that is spent neither for C or I , sales would have to exceed purchases.

In Keynes, inventory is part of I . He defines inventory in different ways. It is goods produced minus goods destroyed. The upper limit of destruction is unity; i.e., the MPC cannot be greater than unity, he thinks, because as it approaches unity the multiplier approaches infinity. In Keynes's system, you don't have to quarrel with the character of C & I , or about who owns it. The only question is, is production added to inventory or isn't it? In order to get hoarding you would have to have receipts from sales in excess of purchases, or proceeds in the aggregate in excess of expenditures. Individually, of course, hoarding is possible.

There is no escape from the equality of S & I as time rates unless you can prove that sales don't equal purchases or unless you define I as not including inventory. But even doing this does not keep saving from equaling additions to inventory.

It is only production that provides the means of life; Adam Smith was right in his quarrel with the Mercantilists. Somebody has got to produce. A community cannot get more money by selling more than it buys; it has to get the money some other way.

How does money come into existence? An individual gets it by selling more than he buys. Where is the money coming from? Keynes would say that is not the question. In aggregate terms you look at the problem in a different way. The community cannot save money; it can save only goods. How does the money get there for individuals to hoard? Keynes says the quantity of money is determined not by excess of sales over purchases but by central banking policy and government fiscal policy. Money is peculiar, not a commodity like wheat. It is 100% liquid, and you can't wear it out. Using it does not diminish its value. The individual gets money from the mint & from the bank. Banks are required by law to create funds; they do not get someone else's funds to give you; they create money just by writing it down. They don't create funds for themselves (by law, although they sometimes get around this by loaning money to each other); they create funds for individuals.

A great many things follow from this thesis. The question of aggregate hoarding is not just a matter of taxonomy or definition; it is a question of fact.

One thing that follows is that I cannot get returns as would be assigned it on grounds of the equational theory of justice--equating cost with reward. According to classical theory, the return to capital has to be sufficient to pay for the disutility of abstaining from C in order to save in order to invest. Not so says Keynes. I is not furthered by abstaining from C; S can't occur until I occurs, since the community can't save money. There is no necessary direct relationship between already accomplished saving & the current rate of I. (There is a slight, indirect relationship here, through the effect of the quantity of money on the rate of interest.) The presence of funds does not constitute effective D for I; the latter is constituted by the expectation of gaining a return.

Whatever is technically feasible is financially possible; financial resources are not a limit on economic activity. Thus the return to capital cannot be pled on grounds of previous abstention from C (real cost). Profits would have to be determined on other grounds than the utilitarian idea of equational justice. In Keynesian terms, the distribution of Y is a matter of public policy, not a matter of inexorable laws of S&D with regard to factors. So the approach to proper public policy becomes quite different. The dismalness of economics is erased and a theory of progress emerges. Man can, through his own judgment, proceed technologically to the limits of his capacity. The question ceases to be "Can it be done financially?" and becomes "Ought it to be done economically?" The limits of capital formation are established by technological and institutional factors, not by financial capacity. And the problem of the distribution of Y (to capital, but not to other factors) is limited by the necessary 0 value of H. Income is factor costs; profits are 0. Income to holders of capital will have to be in some form other than profit. The community can provide Y to capital through subsidy, and of course it does. We do it through autonomous I. Against the funds invested there is an equivalent debt; or alternatively stated, additional assets are balanced by additional debt.

The classicists thought profits are 0 in the long run; Keynes in an instantaneous sense.

As the rate of I increases, funds accrue to factors and thus enter as effective D received as proceeds from the sale of factors. Since the propensity to consume can range between unity and 0, the market will not provide discretionary income to the entrepreneurs in the aggregate. This raises a contingency now which did not appear when the relation between the size of plant and the size of market was small. Then you could allow the more efficient to gain a return from the bankruptcy of the less efficient. Now the size of plant is so large relative to the size of the market that the community cannot allow bankruptcy to work the way it used to. Now you can go bankrupt and still continue to operate. We have found ways to get Y to entrepreneurs because of the peculiar limitation on returns to capital.

THEORY OF THE RATE OF INTEREST. Both classical and Keynesian are set up in terms of supply and demand, which is unfortunate. Marshallians: demand for and supply of saving, saving being a component of Y, a time rate. Keynes: demand for and supply of money, money not a time rate but is simply how much I has been accomplished, both autonomous and induced. The demand for money is a function of technological and institutional factors. This demand is motivated by three motives: transactions, precautionary, and speculative. The last is the biggest volume-wise because it relates to the value of goods with respect to money. You can gain by guessing better than the market what the market will guess. You can't sell a future unless someone is willing to buy a future. Among the prices which vary is the rate of interest. If you think interest rates are going up you will be inclined to hold cash, while if you think interest rates are going down you will want to buy assets. But no matter what you try to do you can't change M, you simply change i . This rate must equate the supply of with the demand for M; supply doesn't change in response to supply price or demand, so i changes. In this way, money is a

unique "commodity." This is pretty sloppy theory, but it doesn't matter as far as the central thesis of Keynes is concerned.

Most of the debate between Marshallians & Keynesians on rate of i is not very important, except in one respect: if i changes, what else must change: supply of money or rate of saving? The former.

The trouble with both theories is that you can't explain a price (interest) in terms of S&D. The rate of saving is a dependent variable--dependent on the propensity to consume and on Y . It would have to be independent if determined by S&D. It is not affected directly by i ; only indirectly because I is affected by it. For Keynes, saving is not what is on hand; it is a time rate, $S = Y - C$. What is on hand? Money.

The trouble with the Keynesian theory of the rate of interest is whether or not the supply of money determines this rate. Is i a payment for parting with liquidity? To the individual it may be. But what liquidity does a bank separate from when it makes a loan? None. It creates the funds. What liquidity does the Treasury separate from when it prints a stack of bills? None. Our legal limitation on the creation of funds is not operative in effect because it is much higher than the loans our banking system actually makes. We control loans in other ways: rate of interest raised by the Fed & M reduced by sale of government securities. So Keynesians say rate of interest went up because M went down. The causality really runs the other way.

What is the economic cost of making a bank loan? It is hard to find. It's not risk; the bank has to have security. Bankers pretend they are undergoing great disutility when they make a loan, but there is no disutility. It costs them more not to make a loan; they don't undergo saving to make a loan. (But labor is not paid to overcome disutility of work either. The whole of the distribution of Y is a matter of public policy, not payment for disutility. And Keynes's theory is closer to the truth on this point than we were before.) The concept of cost is a real problem between Keynesian & Marshallian theory. What is the Keynesian supply price? You can drive prices to incremental cost (railroad competition a good example): is this S&D? Not quite. The incremental cost for a hydroelectric plant is enormously lower than for a coal powered plant. What does determine price?

DIFFERENCES IN THE TWO THEORIES:

1) Philosophical foundations: logic, value, integration.

Marshall makes quite clear his philosophical principles and how he applies them to economics--utilitarian philosophy, want-satisfaction, Benthamite hedonism, modified by J.S. Mill. Keynes does not set forth his basic philosophy; it must be derived from his economic theory. One difference with Marshall is the theory of value, the criterion of judgment. Keynes is applying the American instrumental efficiency idea: full use of factors, full participation in the economic process. He abandons utilitarianism. Instrumental philosophy is built around the problem-solving process. In American common sense usage, utilitarian might mean pragmatic, down to earth, useful. But its professional usage is not that at all; it is romantic philosophy, attributional rather than opaque. Not for Keynes. You can't reduce feelings of the human heart to S&D. The independent variables are not S&D but are institutionally determined.

These two philosophical systems are not treated in the literature, nor their fundamental determinants, nor how they differ--particularly the theories of human nature. In Marshall, man is a utilitarian creature; in Keynes a problem-solving creature envisioning productive participation in the economic process as a positive good, not a disutility. The continuing factors are processual in nature; evolutionary analysis rather than teleological; process toward arbitrary pattern. What performs in Keynesian theory the function performed by S&D in Marshall? Ayres & Veblen hint at it.

2) In methodology, the most immediate & apparent differences have to do with equilibrium, cause-effect relationships, and equational forms. They look the same on paper, but they aren't. One method is to use instantaneous equations, one going toward equilibrium. What is the significance of such differences? One could examine the differences in terms of tools used--difference vs. differential equations.

There are two typologies of basic blocks of methodology in terms of models and theories. A model is a packet of things. It uses deductive logic; has certain assumptions; goes from more general to more specific; makes assumptions about the world and deductions from them. The axiomatic method, is exemplified by geometry. Axioms are definitions. [In econometrics, is it accurate to say that $S = I$ is a definitional equation? It involves more than definition.] You don't test results empirically; results depend on assumptions. The validity of Euclidian geometry does not depend on testing. A model will predict only insofar as the assumptions fit the real world.

Theory is another basic type of methodology. You are going from specific to general. You say if the first is true, the next probably is true; there is no logical necessity that it be true. In a theory system there has to be at least one statement that is empirically verifiable. Theories too, however, have certain assumptions. You are never limited by an upper boundary in this type of reasoning. You can keep on going. In a model you cannot do this, cannot go beyond the assumptions.

Models can be criticized only on internal logical consistency; theories are judged by their ability to predict. Marshall says you need both inductive and deductive logic, but uses the latter in his utility analysis. You can't go beyond his assumptions--feelings of the human heart. But he doesn't use a strict model type of analysis because he does question assumptions of classicists--labor theory of value. Keynes uses empirical data to question the assumptions of neoclassicists; basically also a model type of reasoning. He goes back to assumptions of expectations, but not in an axiomatic sense. His system still rests on its ability to predict; in this sense it is theoretical reasoning.

3) Concept of time. Use periods in Keynes with caution. How does hoarding differ in the two? Saving-investing sequence is the opposite in the two theories.

4) Capital formation. For Marshall, the rate of I is determined by the rate of voluntary saving in the long run; comparative I is determined by the rate of profit. For Keynes, the rate of I is determined by the relationship between the MEC & the rate of interest; the character of I is in direct proportion to the MEC within the area of I .

5) Theory structure. Marshall is tautological, his pattern of assumptions constitutes a group of propositions in relation to which his conclusions constitute their validification. The fundamental determinants--feelings--are unobservable. The Keynesian system is open-ended in that his assumptions are evidentially determined, testable, & subject to analysis.

6) Price level. Marshallian analysis is definitive on comparative prices. Keynes doesn't deal with price patterns, and perhaps they can't even be reached working from his theory.

7) Fiscal policy. Fiscal is more powerful than monetary policy.

First thinking on it occurred in 13th century: Aquinas said public debt was immoral. Adam Smith opposed to public debt because of anti-mercantilism: the state is less efficient than individuals and would use public funds for riotous living. J.B. Say also vehement in opposition, but didn't think public consumption different from private; he wanted saving rather than consumption. Ricardo said national debt is one of the most terrible scourges to affect the

nation. When government borrows and spends, it is just gone, lost. But Malthus thought public debt not evil. J.S. Mill thought in 1848 that government could borrow funds that would otherwise go to waste. But in general he, like the others, thought it meant destruction of capital.

Marshall came at a time when there had not been any wars for some time & the debt had pretty much ceased to be a matter of controversy. Differing from Smith, he felt that credit had come to be used not for extravagance but generally for roads & other useful purposes.

Summary of classical position on debt:

1. Government debt draws funds from useful purposes.
2. Government debt is more painful than taxes.
3. Government debt makes future financing more difficult because of interest payments.
4. Unbalanced budgets lead to currency deterioration.
5. Balanced budgets may be made for use of public funds for useful purposes.

Keynes felt that a modern capitalistic economy does not work automatically at peak efficiency, but can be permitted to do so by government fiscal policy.

8. "Free Will." occasional paper

The supposition that man is endowed with some supra-causal power to create by virtue of "will" is the root of the whole difficulty. The technological theory of knowledge would seem to deny the possibility of the power to choose in a free manner. But this denial is only a result of confusing real choices and imaginary choices.

Everyone is aware that he does in fact make choices, in the sense that he chooses among several proffered alternatives. For example, he chooses to use mahogany or pine as the material with which to plank a boat. Choices of this kind may be described as good or bad, better or worse, and there is no misunderstanding about it. His choices serve well or less well in furthering the efficiency of the continuum of which it is a part, and experience verifies the comparative efficiency of his choice. Any disagreements about such choices take the form of bringing the facts to light, and when the facts are equally available to all disputants, agreement is mandatory. Neither party supposes that he can, by "will," impute the properties of mahogany to pine.

This sort of experience with factual sequence keeps man aware that he does in fact make choices, that he does in this very real sense have free will. But when the deep conviction that man is actually supra-evidential and, therefore, creative in a non-causal manner comes into play through the operation called "choice"--and particularly when this conviction or habit emanates into pronouncements about aspects of experience about which there is little evidence at hand--then the shift is made from real choices to suppositious choices. In this shift, the conclusive evidence that man does make real choices in the technological sense lends itself as unconscious support to the notion that the choices after the shift also are real. The latter are then called "choices" as if they were of a kind with real choices, although the conceptual operation designated by the word is exactly reversed.

The difference between the two kinds of operations is seldom apparent because of the myth that man can give real embodiment by wishing or wanting or by merely "saying the word." Since any word almost invariably can be used to designate a referent established by experience, and since the word may be defined as designating any additional conceptual content the word-user cares to impute, the imputation is seemingly given the same reality as the evidential referent. And it is this "free" ability to designate content by "choice" or "at will" that the objector to the technological approach insists is "free will." Then, shifting back to the fact that people do make choices, he pronounces that the technological theory denies the possibility of free will and that this denial is a contradiction in itself because denying in itself a "choosing" operation. What the objector is doing is this: he is insisting that the imputation has the same reality as the evidential referent. Though the imputation be pure figment, the use of the word with evidential referent is sufficient to give reality to the figment and therefore validity to the figmentation.

The whole of the pre-Darwinian concept of man may be summed up as the theory that man has the capacity to create by figmentation or by arbitrary designation or by "definition." This sort of shifting from the actual to the suppositious, from the real to the unreal, from the existential to the non-existential, has led economists into the fallacy of making efforts to create by definition and then using the "definitions" as basic data in analysis. That analyses so based do not in fact offer real answers to economic problems is notorious. Since economic problems are perforce factual problems, answers must, likewise perforce, run in terms of the facts. And the run of the facts allows no apriorist imputations; the facts themselves are the necessary bases of analysis. When the basic concepts in traditional economic analysis are examined with

alert attention to the kind of shifting noted here from evidential referents to apriorist, arbitrarily imputed “meanings,” the pertinence of the present discussion to economic theory becomes apparent. Consider as examples capital and labor.

Capital: 1) goods, producers’ goods, goods required in the production process, the physical instruments of production.

2) that, by virtue of ownership of which, one has claims on--power to withdraw--goods offered in the market.

The latter (2) is shifted to priority (basic data) as referent by imputing it to the former (1) by identifying them as the same thing. Then, since (1) is irrefutable, (2) is given real substance. It then may be taken as a basic datum, drawing validity from the former. That the two referents are entirely different things is a difficulty the surmounting of which can be explained only on the power to make true by statement, by “willing” it so, by arbitrary definition. And when the identity is questioned, it may still be attained by admitting the distinction and then proceeding in discourse to shift as the occasion requires and thus continue to use (1) as supporting the reality of (2).

Labor: 1) creative effort; activities involved in carrying on the technological process

that is the economy.

2) that in return for which one person is paid by other people in claims on---power to withdraw--goods offered in the market; performances that are sold directly in the market and that are determined by the purchaser who retains sovereignty over the character of the activity.

The word “sold” draws solidity and validity of content from the obviously valid referent encompassed in (1). By shifting to the “selling process,” that process achieves “real” substance from the reality of (1). Labor (1) is obviously and inescapably necessary; labor (2) is sold in the market; therefore selling is a necessary function attached to labor. It is even carried to the point of saying that all sales are, at bottom, sales of labor. And the “utility” analysis (with its refinement in marginal utility analysis) is merely a way of calibrating the quantity of labor in other than time units. It too reduces all sales to creative effort with the effort measured in terms of sacrifice or “pain” rather than time units. The two presuppose each other. Then the identity can be worked both ways: a return of claims on the market is *ipso facto* proof of contribution to the productive process.

9. "Robinson Crusoe" occasional paper

Let us consider the Robinson Crusoe example: the castaway goes about providing for himself. His initial efforts are directed toward immediate satisfaction of the food requirements which could not await fulfillment through the more "roundabout" techniques.

But having established procedures to assure the continuance of the economic process with the tools and materials at hand, he notes that more fish may be acquired by the use of a net, and more goats may be brought to hand with a trap. He sets about providing these instruments.

Now in the classical example, it is supposed that he needs to save or accumulate fish and goat-meat in sufficient quantities to support him while he constructs the new equipment. And toward this end, it is further supposed that to accomplish the new techniques Crusoe must eat fewer fish in case he is already fully employed, or work longer hours in case the initial techniques have not required his full energies.

What activates Crusoe? What determines his choice to build the new devices and use the new techniques? Is it that he calculates the pain and abstention involved in making traps and nets? Is making nets more painful than grabbing fish with the bare hands?

The simple fact is that Crusoe envisions (invents) more efficient procedures, and that his present rate of production permits him to adopt them. In case he is presently "fully" employed in hourly surviving, Crusoe makes choices toward efficiency quite as well as if his present techniques provided surfeit. For example, he will fish the lee side of a bar rather than the windward side in case fish are more abundant on the protected side. It is inconceivable that there could be *no* choices even in this *reductio ad absurdum* example. It is true that the more efficient his current techniques are, the more opportunity he has to experiment with new devices and procedures. But this is merely a differentiation in degree, not in kind. In either case he merely adopts the more efficient techniques in the technological sense. If he did not act in this manner, he would be universally regarded as insane. In fact, in the traditional story, if he did not act on the basis of technological efficiency, he would cease to be regarded at all because he would cease to exist.

There is one circumstance in which Crusoe is not judged to be insane if he acts otherwise than on the basis of technological efficiency: the circumstance of Crusoe's harboring taboos. In this case, those who hold the same taboos might consider Crusoe a hero and paragon of wisdom even though--or even because--his resistance to technological progress results in his very destruction. Those who do not hold the same taboos might consider Crusoe deluded and misguided, and they might even think him vicious, but they would not label him insane. To them, Crusoe may be the subject of evangelistic efforts or he may be the object of warlike expeditions, but he would not be considered a fit incumbent of insane asylums. His sanity comes into question only when he displays conceptual inability to apprehend technological processes. This would be obvious, for example, if he tried to catch fish on the dry sand dunes instead of in the water.

Action on the basis of mana and taboo does not involve inability to apprehend technological processes, and so, does not involve insanity. But it should be noted that action on the basis of mana and taboo, as such, *does have the same incidence* as insane action. The only difference between the two is that the insane act is the result of inability, whereas the mana or taboo act is the result of unwillingness. Their incidences are identical. action based either way attains efficacy only by accident.

It becomes apparent that, even in the Robinson Crusoe situation, the real locus of meaning and efficacy is in the technological processes and not in any system of apriorist propriety formulations.

10. DEFINITIONS STATED BY J. FAGG FOSTER dictionary

ANARCHIST is one who denies the validity of institutions as such--all exercise of discretion over others, confounding power with authority.

APPLICABLE THEORY. "... what we mean by applicable theory is theory which does bring into intellectual availability alternatives which in fact resolve the problematic situation. If they don't, that is what we mean by erroneous theory--theory which does not permit you to get at the right evidences or arrange them for analysis. The arrangement is the structure of the theory. 112 above

ARCHITECT is the person who has the function of applying aesthetic theory to the technological function of structures.

ARTS. FINE ARTS have the central function of communication, while the central function of INDUSTRIAL ARTS is the facilitation of other functions. Not the distinction between work and leisure. 100 above.

AUTHORITY is the exercise of discretion over others with responsibility to them; validated by comparative ignorance. Distinguish from POWER.

BAD is that which destroys the ability to participate in other activities.

BARBARISM is the organized use of predation to provide means of life.

BRUTALITY is the irrational show of coercive force without instrumental validity.

CAUSE. "... no item in the continuum that is human life can be regarded as a cause alone--it is both cause and effect, and it has no peculiar nature as a cause. There can be no *nature* of a cause. 'Cause' applies only to the interconnectedness of the run of the facts." Journal of Economic Issues, 1981:894-5.

CIVILIZATION is the relative development of the arts and sciences; it is never plural and can't be lost; change or loss is in power structures.

COMPROMISE usually means both sides abandon some part of their position. It never solves a problem because it is concerned with "how much" is abandoned rather than "what," the identification of which requires a criterion of judgment.

CONSCIENCE is the sum of comprehensions of validity in one's own behavior; awareness of degree of integrity.

CONSUMPTION is destruction, in the sense of elimination from inventory, but not destructive. This would seem to be corollary to the definition of investment as variation in aggregate inventory.

CONTINUITY does not mean long life. It means continuous in causal terms, cumulatively developmental.

COST in instrumental rather than business terms is a function of values--the destruction of values.

CULTURE is a particular application of the arts and sciences.

DEFENSE. SELF-DEFENSE is the only instance in which one validly has a choice between life and death. In all other situations, there are other alternatives that will maintain the social process.

DEMOCRACY is the process by which the people decide; the popular determination of public policy.

DIGNITY is the outward expression of integrity.

DISCIPLINE is often equated with obedience, but the frontier experience led the founders of the United States to mean by discipline self-control in trying circumstances.

ECONOMICS is the study of how the means of life are provided.

EDUCATION is the provision of opportunities to comprehend the arts and sciences and their applications to the everyday lives of everybody.

EQUALITY. "In the instrumental sense, Justice and Equality are different words for the same thing. They describe conditions of inquiry maximal to constant experiment in human experience. They describe a condition of human affairs in which the individual as part of society can make a maximum contribution, given his individual uniqueness and talents and shortcomings, to the efficient carrying on of the life process of all men."

ETHICS is the study of the difference between right and wrong.

FASCISM is a system in which power is the theory and the criterion of value.

FEUDALISM is a system in which function and status are determined by inheritance.

FREEDOM means absence of prescription to most of the world's peoples, who have constantly experienced power-imposing institutions. To North Americans, who experienced over two centuries of frontier life without power-imposing institutions, it means the area of discretion over one's own behavior.

FRONTIER "is an area of land which is outside the control of a judicial establishment and outside the market process." 164 above. A frontier economy is one in which one or more factors of production do not enter into accepted accountancy.

GOVERNMENT is the organized exercise of sovereignty.

HABIT is a pattern of behavior learned by repetition in situations in which it appears to satisfy

functionally the requirements of the situations. "Habits are applicable where solutions to particular kinds of problems have been attained with sufficient accuracy to permit continued operation without serious infringement of the continuum in question." 96 above.

HEDONISM is the doctrine that pleasure is the sole or chief good and that moral duty is fulfilled in the gratification of pleasure seeking instincts.

IDEA is a comprehension of the consequences of some activity and always precedes action.

INDIVIDUALISM is the theory that assumes that the only source of validity for an individual's behavior is the convicted accreditation of that individual.

INFLATION. True inflation exists when price level increases themselves cause further increases; partial inflation exists when a rising price level does not eventuate in further price increases.

INSTITUTION is a prescribed pattern of correlated behavior. Its prescriptive power is by virtue of habit.

INSTRUMENTAL THEORY OF VALUE identifies problem solution as the criterion of judgment. It is universally applied but seldom recognized.

INVESTMENT is the rate of variation of inventory of a community (for Keynes, inventory of business); the difference between the rate of production and the rate of destruction. "In the classical tradition, increasing capital accumulation is good, but increasing inventory is bad, in that it leads to decreasing investment and income. In Keynes, capital accumulation is inventory and is good, leading one to question the proper character of inventory."

ISM is that which stands for or represents a body of theory, the validity of the assumptions of which is based on the theory itself. It is always teleological, demonstrating how to achieve a preconceived end outside of the life process. 119 above

JUDGMENT is a connection between the present and the future; it is a hypothetical projection of choices within one's area of discretion into combinations which are not yet. If the combinations exist now, you aren't making that judgment; it has already been made. 94 above.

JUSTICE. "In terms of the instrumental theory of value, the concept of justice becomes identical with the problem of welfare--progress. It disappears as a separate problem." From Gladys Foster's notes printed in the Journal of Economic Issues 25 (December 1991):1155-60. Cf. EQUALITY above. Price theory is the equational theory of justice applied to the economic process: price = cost. Same for Marxist theory of exploitation.

LAG. The cultural lag hypothesis advanced by Ogburn, Social Change, 1922, denotes something inherently different between culture and technology. Institutional adjustment is assumed to lag behind technological change. We do have institutional problems brought about by change of industrial arts, but this is very recent, only since science

has adopted the instrumental value theory. It used to be the opposite: the family, government, the market were invented before the wheel.

LEISURE. "Leisure is an attribute of employment, it is not an alternative to employment. It's an alternative to working when you are employed. It's an alternative available to those who have placement in the institutional structure we call employment." 136 above.

LIBERAL is one willing to alter the established institutional order to solve problems.

LICENSE is institutional enforcement of improper choice.

LOVE is the integration of two personalities.

MAN is a social animal; social life consists of integrated patterns of behavior.

MISSING MIDDLE. Foster's characterization of a bifurcation or assertion of an ontological difference in kind. His name is taken from the canon in formal logic of conjunctive-disjunctive relations among propositions: something is either A or non-A. Cf. Dewey's Logic, pp. 343ff. Foster rejected many popular assertions of a missing middle: between pleasure and pain, science and philosophy, fact and value, means and ends, cause and effect, theory and practice.

MODEL is an alternative methodology to theory: deductive logic going from general to specific; axiomatic, tested not by evidence but logical consistency with assumptions--beyond which one cannot go.

MORES PRINCIPLE is that habits constitute institutions. "Institutional structures are constituted by mores and folkways (by habits of thought and action); i.e., the behavior patterns that constitute institutions are habits. In application it is usually assumed that institutions are not only constituted by but also determined by habits. That assumption is false." 109 above

PACIFISM has no foundation in fact. While aggression is always invalid, defense is always valid.

PHILOSOPHY is the deliberate effort to think coherently over the entire field of human experience, i.e., a deliberately rational effort 1) to build generalizations which are inclusive of the whole of human experience and 2) to verify and/or negate these generalizations by observing singular applications. It is generic with science, the only difference being in universes: philosophy is the all-inclusive science, and the sciences are singular applications of philosophy. The same difference exists between mathematics & arithmetic. 88 above.

POLITICAL ECONOMY is the pattern of institutions through which the character and level of real income are determined.

POLITICAL FUNCTION is the process of determining public policy.

POWER is the exercise of discretion over others without responsibility to them. Distinguish

from AUTHORITY.

PRINCIPLE. "Etymologically, the word principle refers to an inclusive and continuing operational proposition to which there are no exceptions."

PROFIT is the ratio of unobligated proceeds (beyond costs) to investment as time rates; net proceeds/net costs.

PROGRESS is the advance of civilization; it is sometimes defined as the rate of capital accumulation, since accumulation is necessary for invention.

PUGNACITY is a human capacity, a temporary circumstance raised by some historians to the level of a principle.

PROPERTY always implies the right to the return from the use of an asset; it can include discretion over use.

PUBLIC UTILITY is an enterprise regulated as to price and product, but privately owned.

REASON is the human capacity exercised in selecting alternatives in problematic situations in which habitual behavior fails to satisfy the requirements of the situation.

RELIGION is the search for the nature of cause beyond ordinary experience.

REPUBLIC is one institutional structure used to carry on the democratic process.

RESPONSIBILITY is accountability for one's behavior.

RIGOR is a sudden and painful dislocation in an otherwise orderly process. Latin stiffness or severity, from *rigere*, to be stiff.

SABOTAGE, PEACEFUL is the intentional, willful, deliberate, planned curtailment of the provision of the means of life.

SCIENCE is a matter of arraying facts in causal terms, in line with a theoretical formulation, which is a theory of value, a criterion of judgment. 1) building generalizations, and 2) constant verification and/or negation through singular applications of those generalizations as working hypotheses. The two steps are separately identifiable but not separable operationally, since the first is accomplished through the operation of the second. 88 above.

SIGNIFICANCE is applicability to real problems.

SOVEREIGNTY is that resolution beyond which there is no appeal.

SPECULATION is the effort to gain by changes in price levels.

STYLE is the individual character of the use of tools.

SUBSIDY is a payment which wouldn't have been received if real cost were the limiting factor.

SYNDICALISM is the system in which function and status are determined by economic role.

TECHNOLOGY is the application of theory (the arts and sciences) to physical fact, to the social process, to the use of social and physical tools.

TELEOLOGY is an outside-of-the-process directional determinant or directional identification.

THEORY is the identification of significant data and hypotheses about relationships. "The function, and therefore the significance, of scientific theory is twofold: it identifies pertinent data, and it specifies the arrangement of those data for analysis in order to find answers to problems." It is an alternative methodology to modeling, going from specific to general: if first is true, next is probably true. At least one statement must be empirically verifiable.

UTILITY. "Some things give more pleasure or pain than others, and people make judgments about them. But those traits do not explain how things come to be judged desirable or undesirable. A criterion of judgment is still needed." 117 above.

UTILITY THEORY OF VALUE identifies want satisfaction as the criterion of judgment. It is almost universally assumed but cannot be applied because it is irrelevant to the causal continuum of human experience. "It is impossible to apply an erroneous criterion." 93 above.

UTILITARIANISM is the doctrine that the useful is the good, and that the determining consideration of right conduct is the usefulness of its consequences; especially the doctrine that the aim of moral action is the largest possible balance of pleasure over pain or the greatest happiness of the greatest number.

VALUATION is the process of applying a value when judging comparative worth. "Now, valuation as such is the selection of proper behavior, as choosing among alternatives, alternatives which are available in the sense that they may be chosen but which are not yet operative." 97 above.

VALUE is the criterion, end, or referent of judgment.

VALUES usually mean things we hold dear. They are never continuing factors; they refer to temporary situations rather than to continuing conditions, and thus cannot serve as grounds for judging what is good and what is bad economically, i.e. VALUE.

WAR never solves problems, but does determine who will make policy after it is over.

11. "The Social Process" syllabus

Introduction.

Human knowledge and experience may be classified for convenience into four branches, each of which clusters about a great central theme. Thus, the physical sciences cluster about the study of inorganic (nonliving) matter; the biological sciences deal with organic (living) things; the humanities find their unity in the common interest in human feelings, expression, creation and aspiration; and the social sciences compose a separately classifiable broad field because of their concern with man's associative (group) life.

These broad fields are not actually separate and distinct, one from another. They are so identified and described purely for purposes of convenience, ease of study, accuracy in methodology, and also because they can be used as preparations for distinctive occupations such as physicist, journalist, physician, minister, astronomer, teacher, artist, engineer, businessman, and many others.

The present course deals with that growing body of scientific knowledge about man's social life in groups, usually referred to as the social sciences. As one of the four great branches of human knowledge, the social sciences have certain distinctive characteristics which identify them as such. It is the purpose of this essay to describe some of these characteristics, especially as they focus upon the social process which acts as a nucleus for the broad field of the social sciences.

The Object of Social Inquiry.

In dealing with mankind's social life, the social scientist can never get far away from the fact that he is dealing with society in transition--in process of continual change. There is no way to escape the reality of change in social affairs.

This is true because human society never ceases to respond to changes of all sorts; natural changes, cultural changes, technological changes. The process of change never stops, freezes, petrifies or comes to rest. A moment's reflection will confirm the validity of this notion that reality is always changing. For, as a wise Greek philosopher once said, "no man can step in the same river twice." In the instant between the first step and the second step, both the man and the river have changed; and neither can be "recaptured" in its identical form of the instant before. Time and change have intervened.

So it is with the flow of the social process. Social change is the gross continuing effect of millions of smaller and mere individual changes taking place in all things and in all people all the time. Change is inherent even in the electromagnetic structure of atomic matter itself. It reveals itself to the social scientist in myriad ways, making the study of the social process a complex and difficult task. But since social change and the continuing flow of the social process is a verifiable fact, we have no alternative except to make our inquiry as accurate and as significant as possible.

Social inquiry, then, can be significant only in so far as it deals with the social process in all its complexity or in so far as it contributes to that effect. All social scientists share the social process with one another. It is the object of their cooperative inquiry. Some of these social scientists call themselves after the several aspects of the social process which evoke their special interests, such as: Anthropologist, Economist, Geographer, Journalist, Historian, Political Scientist, Sociologist, Social Psychologist or specialist in International Affairs. Still others like Educators, Social Philosophers, Lawyers and Social Service Workers are concerned with special aspects of the social process.

But all of these categories and many others are unified in to the same broad field by their shared interest in man's associative life in groups as it is carried on within the stream of the social process. The social process therefore forms the unifying nucleus of the social sciences, and it is, therefore, the proper object of social inquiry.

The Social Process and the Social Order.

The social process, like a broad river, flows through time unceasingly. It can never be studied comprehensively in its wholeness without reference to movement, mutation, modification and change. But even so, it is sometimes both possible and desirable to stop this flow of change at a given instant in time, in order to study a given institution or group of institutions within the social process. This artificial device is something like taking a flash picture of a waterfall with a very fast lens. The effect is to "freeze" the actual action-flow. It is sometimes desirable to do this in order to help the social scientist make sense out of an otherwise bewilderingly complex social interaction. The picture thus produced is never "real" in the sense of complete accuracy, but it is real enough to support a useful level of generalization about specific social problems.

In this manner we can put together a series of these flash pictures in such a way as to be able to trace through time the evolution of almost any given social institution, such as the family, the economy, the church, the nation-state or the political order.

When these pictures of various institutions are in turn sequentially put together we can get some idea of the "social order" at any given era. For the social order may be thought of as the totality of the interacting institutions during any given span of years or decades. And it is within this meaning that we give such names to cultural epochs as "Victorian," or "Periclean," or "Elizabethan;" or more broadly yet, "Restoration," Colonial Era," and "Postwar."

These are undoubtedly high-level generalizations. Yet at the same time they are distinctly useful to the social scientist as he attempts to study the social process in its constant evolution from one social order into the next. If we assume, however, that we have succeeded in recreating an exact and substantial picture of a social order which is not also in a constant state of change and flux, then this device of stopping the flow of the social process can lead to inaccuracy and self-negation.

The Social Order and Social Institutions.

The social order is comprised of social institutions. One reason why stopping the flow of the social process by "artificial means" is especially useful is to allow the social investigator to analyze the social institutions which make up a given social order. This is extremely important to the social scientist because it is through social institutions--and only through social institutions--that the social process impinges upon individual persons in society.

None can escape living within social institutions and, indeed, most of us would not care to escape. From the moment of birth into the world, human individuals are involved with other humans in institutional circumstances. A moment's recasting of one's own life substantiates this statement of fact. The individual is born into the institution of the family; plays as a child in neighborhood gangs; is educated in institutions called schools; worships in the institution of the church; joins fraternal clubs; serves, perhaps, in institutions of national defense; earns a living in economic institutions; joins a political party, a professional or trade society, and so on. At all times he is a citizen of a locality (municipality), a state, a region, a nation, and--in our day--of the world.

There is no escaping institutional life. It is the only means by which the social process can bestow the blessings, as well as deposit the problems and conflicts, of associative life upon the

individual person. It is through the hundreds of social institutions of the social order that the social process provides life and its qualitative promises for each individual person.

The importance of life as it is lived within institutional patterns can hardly be overestimated. Institutions are decisive in molding us into the persons we are. In a sense we are the prisoners of our institutional environment, the victims of our past experiences. For social institutions (groups) prescribe our every action. They influence our manner of speech and prescribe the language we use in communication; they dictate our dress, mould our habits of thought, specify our habits of eating, our manners, our relations with our own and the opposite sex, oversee what we learn, what we hope for, reward us for conformity and punish us for transgression.

In a word, institutions control, guide, educate, and influence our every interaction with the human environment of ideas, habits, and human relations both past and present.

It is obvious that if the social process occurs through social institutions, and if the social process is the proper object of inquiry among the social sciences, then social institutions are of key importance. Their origin, framework, operation, maintenance, growth, continuity and (sometimes) demise are the stuff and substance with which the social sciences must deal. When all the social institutions of a given time are taken together, they may be said to comprise the social order of that particular moment in history. It follows, therefore, that if the social sciences are to have real significance, they must focus their attention upon social institutions, and address themselves to the social problems within these institutions.

For it is only when social institutions efficiently perform the duties for which they were created that a smooth-flowing social process is possible,.

The Purpose of the Social Process.

Society is the great invention of men who are born into a world not made for them. Although in legend mankind commenced life in a Garden of Eden, he has long since left that happy state. Men have wants the world does not supply without working, and men have needs whose satisfaction comprises the terms of the life struggle.

Social institutions are man-made devices for making life secure, easier, richer, less risky and more abundant and attractive. Mankind found out long ago that the frictions and conflicts of group life were outweighed many times over by the dividends of working together in cooperative association. The fact that man as a species was capable of learning this great lesson made him capable of dominating the earth despite his relative physical weakness, the burden of an enormously long period of child nurture, his lack of protective body hair, and his inferiority of scent and other requisites of survival in a hostile world.

As a life-loving, death-fearing animal, man's only recourse has been to seek perpetuation of life through pooled intelligence and cooperative enterprise. He has sought--and still seeks--to make his world as secure, as full, and as satisfying as the terms of life struggle will allow. Moreover, as man has accumulated a vast heritage of useful experience (and has become able to communicate it on a global scale), he has developed his ability to control his less-than-garden-of-Eden environment.

By developing the resources of scientific curiosity; by improving his industrial arts; by peering into the nature of the human mind, emotions, and personality; and by creating leisure in which to speculate about human purposes, he has raised himself in a bare 100 centuries to a substantial level of material abundance and security within which to contemplate beauty, to pursue creative happiness beyond mere animal existence, and to engage in the activities and arts of the good life.

The vehicle by which this astounding progress has been made has been society. That is to say, men in association with one another in various social institutions have lived, worked, and

achieved together that correlation of life activities we call progress. The social process--the flow of change through the institutions of the social order--has increasingly become the only means by which men can seek to anticipate, to welcome, and to direct intelligently the changing reality which is the central fact of human existence.

When viewed in these terms, the social process loses much of its inevitability and fearsomeness. If society--that is, the institutions of the social order--is man-made, then it can be altered by man. Indeed, this is precisely what Thomas Jefferson meant when he made recourse to the "right of revolution" in justifying the birth of the American nation in 1776. For he was able to perceive that the social order is the tool, not the master, of mankind, and that it can be refashioned and redirected into new channels and newer forms more efficient and more beneficial than formerly.

Jefferson's implication is scientifically true. It is that the social process should be fashioned by man to serve two great ends: 1) the protection of men from preventable death (the inalienable right to life and liberty), and 2) the provision of life's qualitative promises (the inalienable right to the pursuit of happiness). In his memorable Declaration of Independence, Jefferson proclaimed the deathless integrity of man, and of man's right to redirect the social process and refashion his social institutions to serve not only the few but all men.

Now it is obvious that the social process does not provide all men today with either an assured existence or the fullest possible measure of life's potential promises. It is this failure--this inefficiency--of successive orders through history to arrange the flow of the social process so as to make the maximum provision of life and its promises that gives meaning and significance to the study of the social sciences.

For when Jefferson spoke of the inalienable rights of life and liberty, his thought was that society serves men most efficiently when it protects men against the derangements of wars. To this thought, other philosophers and statesmen have since added the concept that the social process must be arranged so as to provide other things, such as protection against accident, illness, old-age and unemployment.

And when Jefferson spoke of the inalienable right to the pursuit of happiness, his thought was that no social order could long exist which did not also provide its citizen-members with a measure of human dignity, achievement, status and belonging, love and companionship--in short, with the amenities and some of the luxuries, the leisures, the relaxations and the promises of life.

Jefferson's notion of judging the social order by setting it up against the inalienable rights of man is a profound--indeed even today almost a revolutionary--social instrument. For it is no less than a statement of social value.

Using it as the criterion of value, above and beyond the social institutions which themselves are under reexamination, we have a scientific means of measuring the achievements and shortcomings of the social institutions which are the immediate focus of attention in the social sciences. And if these social institutions occasionally fail, as they do, to provide men with life and the maximal consummatory experiences of which these institutions are capable, then we have at least a clue to the discovery of the source of this inefficiency and of eradicating the defect on a scientific (evidential) basis.

This is the whole object of inquiring into the social process and into the institutions of the social order through which the process takes place. This is the fundamental nature and purpose of the social sciences. It is in the constant scientific reexamination of man-made institutions against the criterion of "instrumental efficiency" that the social scientist can make his most

significant contribution to a smoothly flowing, that is to say, a peacefully changing and ever-modifying, social process.

The Social Process and the Theory of Value.

The notion that the social order exists to provide all men with life and its consummatory promises is a fundamental concept in the study of the social sciences. It is fundamental because from it can be derived some idea of the proper scope of the broad field of social science, as well as the practical usefulness of social inquiry.

Consciously or subconsciously, all generations of men have at all times been compelled to fall back upon this final criterion of instrumental efficiency in order to modify outworn or inefficient social institutions. The historical record is filled with examples. The modification of the Divine-Right Monarchy in France and England and Russia is one case in point. The inability of nation-states to prevent war and the growth of the United Nations is another. The inability of unregulated capitalism to prevent the now-famous "boom and bust" cycle is still another. There are but three examples of the types of social problems which confront social scientists in their search for a peaceful, ever-changing, and smoothly operating social order. A longer list of real social problems plaguing various social institutions would include the disorganization of the family, inequities in the flow of income, disparities between mutually-exclusive religious beliefs, race prejudices, the control of atomic and disease-based weapons of mass destruction.

How is he to attack these problems with any real hope of actually resolving the conflicts which create them?

The social scientist can hardly hope to resolve all social conflicts by the application of some mystic formula. But he does know some things in fact--that is to say, things that are subject to experiential proof in the entire historical record of human experience. He knows, for instance:

- 1) That change is constantly taking place, and that no human activity can arrest its flow;
- 2) That in order to survive, man-made social institutions must respond and adapt to these natural changes;
- 3) That failure to modify outworn structural institutions is an invitation to forceful overthrow--war and revolution;
- 4) That institutional modification to endure cannot be made blindly, but must be made in conformity with some notion of social value;
- 5) That social value, as confirmed by the entire historical record, is no less than the maximum provision of life and its consummatory promises for all men;
- 6) That social value can be used as the criterion of instrumental efficiency only in a truly free society.

These are the tools of the modern social scientist. They involve some of the most profound learning and scholarship of the ages. They represent no less than the attempt to apply the theory of value scientifically (evidentially) to social affairs. And the object of making social inquiry with these tools is to help resolve real problems of real people in a realistic and peaceful fashion.

The Social Process and the Free Society.

Some human societies have attained to a high degree the benefits of a smoothly flowing social process: security, abundance, liberty, and experimental development. Others have

attained only an imperfect and awkwardly organized social process: animal existence, poverty for large numbers, human exploitation, institutions wedded to traditional practices.

It is obvious that only in the free society can the pursuit of social value best take place. It is obvious from everything we know about past human institutions that the level of production of the necessities and abundance of life is coexistent with the degree of experimental freedom of thought.

These two things--high-level production and freedom to change and experiment--are the signal lights of free societies. Where they are extinguished, freedom exists usually only for the few in an economic and political as well as a social sense. It was this thought that motivated Thomas Jefferson to lay down the five propositions by which social institutions (in this case, the state) must be modified when freedom of inquiry and experiment do not exist. He said:

We hold these truths to be self-evident: 1) that all men are created equal; 2) that they are endowed by their Creator with certain inalienable rights; 3) that among these are life, liberty, and the pursuit of happiness; 4) that to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed; 5) that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or to abolish it, and to institute new government, laying its foundation on such principles and organizing its power in such form as to them shall seem most likely to effect their safety and happiness.

Explicit in the Jeffersonian doctrine is the declaration of the inalienability of right to experiment--to be wrong as well as right. In other words, Jefferson believed that the human being is so constituted that, short of death, his curiosity can never be taken away, that experimental inquiry is a function of living itself. Any society which believes differently, which attempts to abolish or perpetually to extinguish curiosity without extinguishing life itself, is merely banking the fires for its own eventual consummation by the flames of revolution.

As Jefferson continued, "... and accordingly all experience hath shown that mankind are more disposed to suffer while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed" Eventually, the unquenchable and inalienable rights to life, liberty, and the pursuit of happiness will correlate into some form, expressing itself in modifying the offending institution or institutions and recreating "its powers in such form as to them shall seem most likely to effect their safety and happiness."

But Jefferson was speaking of forceful revolution as a last resort. The modern social scientist, with the data of the historical laboratory at his elbow, seeks to make free social inquiry into a tool of peaceful modification and adaptation. Using it properly, he seeks to conduct his investigations into the various institutional structures of his society in such a way as to produce a "plurality of alternatives" by which to resolve the social conflicts and problems that continually arise in response to continuous social change. His motive at all times is to propose alternative solutions to social problems which society at large can use to be tested in experience and in practical operation, and then to modify and to examine once again "in such forms as to [it] shall seem most likely to effect [its] safety and happiness."

The truly free society does not penalize one alternative solution in advance. As in a fair race, the competitors do not injure one another or seek to trip an opponent while racing toward the goal. So with alternative ideas for resolving social problems; no liability is imposed before the race of experiential testing is completed, and no recrimination or revenge is visited upon the loser. In the free society, individuals are left free to choose between competing ideas which serve them and their purposes better than others. And even when once accepted by the

majority, a given idea or belief is always held subject to reexamination, modification, and revision--even as conditions, ideas, things and people themselves change with time.

At the root of the free society is the realization that the social process, like a broad river flowing, is always becoming.

The social sciences are but one of the four great branches of knowledge through which mankind can hope for a social process which makes it the beneficiary, not the victim, of change. Through the social sciences, the modern student has access--not only to the vast body of data collected by the various fields within the social sciences, but also to a scientific method of dealing with social data which can contribute in large measure to the dissolution of the forces of hate, greed, misery and ignorance which lie like festering sores deep with the social process of modern times.

But the free society and social order most likely to survive its capacity for its own self-destruction is the one--and only that one--which is willing to submit its basic foundations to constant and candid scientific criticism. This necessitates the vigorously protected right by all men everywhere to apply the standards of scientific criticism even to the most sacred and obviously unquestionable justifications of a given social order.

In our day, this privilege is the price not only of the smooth continuity of world culture, but of the survival of that culture itself.

12. "The Problem of Value." syllabus

Wherever men have been associated in society, they have sought answers to the question of the nature and purpose of social organization. What constitutes the "good life?" What is the end or goal or value to which men should aspire? It is such questions as these that constitute the problem of value. The answers that men have given are important because our ideas about what ought to be constitute the criterion of judgment which we use when confronted with the necessity or possibility of making choices in the attempted solution of a problem.

While we are now in a position to see that there is some scientific evidence which can aid us in solving our social problems, does this mean that it is no longer necessary to concern ourselves with the question of what is desirable? The answer is that there does not seem to be any way of escaping the necessity for considering what ought to be. But it is in their context as criteria of judgment that we must concern ourselves with concepts of value. This is so because it is in this connection that they are involved in the attempted solution of social problems. The solution of social problems involves the necessity for making choices. Man cannot escape the necessity for social action, and such activity necessarily involves some prior choice-making wherever it is not determined by habitual behavior patterns. To refuse to make a choice in a situation where action of some sort is inescapable is, in effect, to make one. The decision to maintain the status quo unchanged is itself a choice.

The making of choices involves the application of some criterion of judgment--some concept of the desirable which serves as the reference point in the selection from among available alternatives. This is true of the choices that men make in their attempts to solve social problems. For example, if we are considering the problem of unemployment, and it is found that full employment can be maintained only by increasing public control over some parts of the economy, on what basis do we decide that it is desirable to do so? Are there not moral values in "free enterprise" which are more important than maintaining full employment? If it be true that security can be achieved only at the expense of freedom (as many people contend) which of these is the more valuable goal?

In the analysis of social problems, solutions always take the form of choices from among available alternatives which exist as institutional structures. When confronted with the problem of housing, do we decide to leave home-building exclusively in the hands of private enterprise, provide government subsidies to homebuilders and purchasers, have the government build housing projects, facilitate the setting up of cooperatives, set up the institutional means for killing off that part of the population which cannot find homes, or adopt some other alternative or combination of alternatives? The character of the answer chosen--the institutional pattern selected--will be determined by the criterion of judgment employed. It is clear that the problem of value, in the sense of criterion of judgment, cannot be escaped.

The problem now becomes that of whether criteria of judgment are themselves subject to rational analysis or whether, after all, there is no rational way to judge between them and, therefore, no rational way to solve social problems. In this regard, it needs to be emphasized that these criteria do not exist independently of the social interaction which is taking place in the group in which they are applied. In each case they rest at bottom on some conception of human nature, some idea of what sort of being the human animal is. As such, we are entitled to inquire whether their validity is subject to examination in the light of the hypotheses which emerge from the actual study of human relations.

There is no reason to believe that any criterion of judgment is somehow mysteriously divorced from and logically independent of the “observed regularities” of human behavior discussed earlier. Since such criteria become meaningful only as they are used as the reference point in the organization of human behavior and the attempt to solve social problems, they may be required legitimately to meet the test of such evidence as we have about the behavior of human beings. The criterion of judgment used to solve economic problems within the framework of business enterprise, for example, is based on the concept of the “economic man.” This is a theory which no longer can be held to be valid in the light of the mores principle. We are now able to see that the classical economists were confusing some aspects of the human behavior which they saw around them in their society with an immutable, inherent human nature. Yet judgments continue to be made on this basis. Witness current discussions with regard to the problems of housing, inflation, medical care, educational facilities, etc. Much the same difficulty is inherent in the communist criterion of judgment. The class struggle, upon examination, is found to be the same sort of thing as the “invisible hand.” This is not to be wondered at, since both theories are the result of the same sort of thinking about social affairs. They both represent “absolute truths” which must be accepted through an act of faith and do not stand the test of inquiry. All such non-scientifically based criteria of judgment—including at the present time fascism, communism, and laissez-faire—have several things in common. A closer examination of these similarities may be of help at this point.

Characteristics of Non-scientifically-based Criteria of Judgment.

In the first place, all such theories find validity in a certain fixed pattern of institutions. Whether it be the noninterference by government in the economic life of the community and the determination of economic policy exclusively by the owners of property (laissez faire), the complete absence of private property and policy determination by the dictatorship of the proletariat (communism), or the superiority of some racial or cultural group and determination of policy by the “naturally superior” through the institution of the party (fascism)—no matter which of these theories is involved, its aims are to be achieved through some particular set of institutions. But we know that institutions change, and we know that the only way to solve real social problems is by changing institutions. We know that any theory based on values which are to be realized through some particular institutional pattern, though it may seem to present easy answers to problems, is in fact incapable of solving those problems. The character of the social process and the dynamic nature of invention make such easy answers impossible. If it is necessary to change institutions in order to solve social problems, then we know that, whatever criterion of judgment is to be used, it cannot be such as to require any particular pattern of institutions.

Similarly, and for the same reasons, any valid criterion of judgment must be independent of the institutional structure in which the judgment is to be made. Otherwise, nothing more than a justification of the very institutions which need to be modified can occur. In other words, while cultural prescriptions dictate habitual behavior patterns, where problems arise these habitual patterns must be modified. The prevailing dictates of the culture which regulate this particular phase of social activity must, then, be critically appraised and modified, and this requires a criterion of judgment which is exterior to the institutions being examined.

The second characteristic of such theories results from the previously noted fact that any criterion of social judgment rests on some conception of human nature. In this case, this theory of human nature is not based upon scientific analysis of the biological and social characteristics of men living in groups, but is based upon some preconceptions about human nature. These preconceptions seek to establish invidious distinctions between people. By invidious, we mean alleged distinctions of relative worth or ability which are not drawn from and cannot be verified

by rational analysis of the evidence. They represent judgments about the relative worth of individuals, and they generally come to focus in the matter of policy determination, for the power to determine social policy is the power to prescribe the conditions of social life for all of the member of a community. Thus, it may be held that one race is inherently superior to all others, that the proletariat is somehow the highest class in society, that the owners of property are peculiarly endowed with the capacity to make decisions. In each case, the assumed inequality between men is used as the criterion of what is desirable in social affairs. In each case, this assumed inequality is held to be a valid reason for allowing some group of people to decide policies which affect the lives of others. This is accomplished by identifying the interests and welfare of the "superior" group with the interests of the community at large, and it is held that the well-being of the elite is an accurate index to the well-being of the society. In each case, this assumed inequality is invidious (unscientific) because it rests on assumptions which cannot be proved, or it is an unwarranted imputation of moral worth from real individual differences.

It is this sort of judgment, which is at the bottom of all prejudice. Certain common sense appreciations of surface differences between people--skin pigmentation, hair texture, facial characteristics, etc.--are held to be evidence of relative worth or instrumental capacities of the individuals concerned, and are held to be sufficient evidence for denying to this group opportunities for full participation in the social system--always, of course, in their own best interest since they are "inferior."

Characteristics of a Scientific Criterion of Judgment.

These characteristics of nonscientific criteria of judgment represent clues as to the way the scientific method can be applied positively to the problem of making choices. We can distinguish at least three positive identifications of a valid criterion of judgment in social affairs.

In the first place, the basis for judging must take account of the reality and inevitability of change. This means that our criterion of judgment must be constructed in terms of process rather than structure. It must be outside of and independent of any specific sorts of institutions, since we are judging from among institutional structures. This implies a criterion which does not specify any stable, continuous pattern of institutions, but one which recognizes that a continuously expanding technology makes institutional change inevitable. The process of change, motivated by the enlarging area of human activity in which scientific explanation occurs, must itself be the reference point for a valid criterion of judgment.

This does not at all imply that institutions are unimportant, nor does it mean that stability and continuity in institutional life are not social imperatives. It is necessary to repeat that social activity takes place through institutions, and that social change is accomplished through the modification of institutions. The point is that the criterion of judgment employed must be independent of the prevailing mores if real, rational choice is to be possible. Nor does it mean that all of the mores of a community must be modified to solve its problems. The habits of thought in a democratic society, for example, which may properly be called mores and which constitute the habit of referring to non-coercive, nonviolent solutions to problems may be validated by a scientific criterion of judgment since they constitute a basic condition for rational choice.

In the second place, a valid criterion must provide the opportunity for real, rational choices to be made. That is to say, it must take into account the determinants of the problems to which it is to be applied. It must be rooted in reality--in the "observed regularities" among the items involved in the problem. It must recognize and be based on the realities of the culture concept and the principles of social change. It must start from where we are in the realities of the problems encountered, and at the same time, it must provide a conception of where we ought to be. It must bridge the gap between what is and what ought to be. This means that

there must be an explicit connection between the two, and that what is viewed as desirable must not be divorced from what is possible. This condition can only be met by a recognition of the relationship between personality and culture--an understanding of the habitual behavior of people (what is), and a recognition of the nature of social change--an understanding of the way that people can change their behavior patterns in order to solve the problems created by an expanding technology (what ought to be).

Thirdly, judgments about social affairs which can be held to be valid must be instrumental rather than invidious in character. When judgments are made on invidious grounds, they can only intensify the problem which exists. The racial problem, for example, is the problem of the denial of the opportunity for effective participation to minority groups on the basis of assumptions of invidious differences between races. Any attempt to solve it on invidious grounds cannot possibly resolve the problem.

We are here considering the belief systems held by people in any society. These belief systems are important data in social analysis. But they are important in the same way that men's ideas about disease before the discovery of bacteria were important. They do not provide us with the basis for making judgments about current problems any more than the explanation of disease as punishment for sin provides the modern medical researcher with a tool for curing cancer. Social science can provide people with a way of thinking about social affairs which will enable them to solve their social problems only insofar as we are able to apply to the relationships between human beings a way of thinking which meets the same logical conditions as that which has characterized advances in physical knowledge.

The advances in the reliability of our knowledge about the physical world have been achieved through the sort of thinking that we have been calling instrumental. We have been able to solve physical problems as our approach to them has come to be based, not on preconceptions about their nature, but on "observed regularities" in the phenomena disclosed by observation of the facts in the case. In the case of man's relationship to man (institutional life), man's thinking has commonly been invidious in character. The task now ahead for civilized man is the construction of judgment drawn from an investigation of the way that human beings do, and have, in fact behaved.

Summary.

By way of summing up, it is clear that science does not provide us with a way of escaping the necessity for making value judgments in social affairs. But it is also clear that the method of science does provide us with a way of bringing our value judgments into closer correlation with the facts of social life. It does provide us with a way of making such judgments as will enable us to solve problems. In fact, the validity of the instrumental approach to social affairs, as distinguished from the invidious, is to be found in the fact that it is the method by which problems may be solved. Moreover, this way of thinking about social affairs enables us to escape the conclusion that there is no way to decide between the relative validity of different institutions and social theories.

The significance of what has been said for the central problem of the competing theories of government in the world today should also be considered. For of all these theories, democracy--the determination of social policy by those who will be affected by the policy--would seem to most nearly approximate the conditions discussed above. It is within the framework of the democratic process that a free, uncoerced choice from among alternatives can be made. Democracy alone among the available theories of social organization does not specify any particular pattern of institutions. Democracy alone makes no invidious distinctions between people and specifies that it is only within such a framework that the real, instrumental differences between people may be realized. Democracy provides, in the long run, the

alternative which is capable of constantly adjusting itself to changed conditions--of continuously solving the problems which it confronts.

It may be true that such assertions are valid only on the basic assumption that it is desirable to solve problems. If so, it does no material harm to the position here stated, since no one can deny the validity of problem-solving without denying the very nature of life. In fact, all social theories have laid claim to potency in the matter of solving problems. The point we have been emphasizing is that these problems are objectively determined and that they can be viewed as cause-effect sequences. As we approach the matter of human relations with this clearly in view, there is reason for hope that we can develop the techniques for solving those problems.

What is a Social Problem?

We are now in a position to consider what we mean by a social problem. It should already be clear that social problems are related somehow to the fact of continuous social change. In fact, social conflicts or problems may be viewed as symptoms of social change. Conflicts arise in society when two or more aspects of the social process are inefficiently correlated--more specifically, when the invidious bases of institutions interfere with their ability to maintain the social process at the level which the available tools and techniques make possible. Social problems are not dependent, then, on the subjective awareness of their existence by members of the community. Unemployment is a social problem when the economic institutional arrangements make it impossible to maintain a level of full employment in a technological situation which is capable of supporting full employment. To put it another way, a social problem exists where members of a community are denied access to the full measure of participation in society which their own energies and capacities and the available technology make possible.

Because this is the case, social problems can only be solved by the modification or replacement of the institutions which have failed to correlate human behavior efficiently. We have, of course, been assuming that it is the behavior of individuals which is being correlated inefficiently. It follows that, while social problems may be said to exist independently of the awareness of the individuals concerned, it is also true that the effort to solve a problem will not be made until the members of the society are conscious of the existence of the problem. And the effort cannot be successful until they are aware of the factors which have caused the problem and are thereby equipped to deal with it.

Social Problems and the Individual.

While any particular pattern of institutions is a cross-section of the social process, these institutions are reflected in the behavior patterns of the individuals in that society. Institutions may also, therefore, be said to exist in the minds of individuals. The judgments of any society as to right and wrong, permissible and forbidden sorts of human activity which are expressed in institutions, become cultured, ingrained habits of thought and action in the members of that society. In the language of the social psychologists, people tend to "interiorize" the social norms which are current in their institutions.

The activities which the norms of any society prescribe become habitual and their execution almost unconscious. At the same time, the norms themselves--the values and basic assumptions on which these behavior patterns are based--are accepted, for the most part, uncritically. Indeed, many individuals are not even aware of their existence. The result is that they tend to become "evidence-proof formulae." They remain tacit assumptions that people are not prepared to question or have questioned or to refer to the test of evidence for proof. When they are attacked, the reaction is personal and emotional.

Some of these established ways of doing things are more commonly and deeply ingrained in the minds of individuals than others, of course. In American society, for example, most people would consider it immoral--and suffer real discomfort--if forced to use someone else's toothbrush, and feel it a personal affront when the sanctity of the traditional institution of the family is called into question. These are matters about which the American community's institutional prescriptions are widely and deeply held. On the other hand, the appearance of women in public in the "old look" is probably not yet accounted serious enough to bring deep social disapproval. The attempt by advertising methods to make the "new look" a serious social prescription has not come up to the hopes or expectations of the ladies' apparel industry. In the matter of dress, the varying degrees in which social prescriptions become involved with emotions is clearly evident.

While much of human activity is habitual and dictated in the manner described above by the existing institutional pattern, it is also true that the pressure to solve real social problems results in a conscious decision on the part of individuals to modify these habitual behavior patterns and institute new patterns of relationships among the individuals in the community. This decision amounts to a conscious choice from among the various alternative solutions to the problem which are available. It is a different sort of activity than the unconscious obedience to custom which we have been considering. And it is the only sort of activity which is capable of solving problems. This sort of real, rational choice by the individuals concerned can only be made when they have become sufficiently aware of the restraints which established institutional behavior put on their ability to live more meaningfully and abundantly.

Personal Problems and Social Problems.

Because all individuals live in society and, therefore, within the institutions of their society (with the rare exception of the hermit), it becomes necessary for them to adjust themselves to the requirements of their society. But the adjustment of individuals to society--to things as they are--does not mean that people must be taught to regard the institutions in which they live as permanent or perfect arrangements. If this could be accomplished, the result would be mass stagnation or suicide since a society composed of such individuals would not be able to modify itself as change becomes necessary. A healthy society, then, is one composed of individuals who recognize the inevitability of change and are prepared to solve their problems by the rational modification of their institutions.

It is not enough, therefore, to have citizens who are well-adjusted to what is. In the long run, healthy individuals cannot exist in a sick society. Consider, for example, what the consequences of adjusting individuals to the social structure of Fascism meant to the world. A well-adjusted little Nazi can hardly be said to be a healthier and sounder individual than a poorly adjusted one who finds it exceedingly difficult to live in the Fascist society. In the case of the migratory workers in the United States, the social problem is obviously not one of convincing the migrant that he should be happy in spite of the fact that his family is hungry, ill-housed, diseased and deprived of any educational facilities. Nor is it a matter of enrolling him in night school so that he can study to be a salesman or a mechanic. If all migrants were transferred to stores and factories, the agricultural crops would lie unharvested.

The social problem here lies in the fact that a substantial portion of the American community is denied access to the full participation in the economic process that our technology makes possible. And the level of participation of the rest of the community is lowered to the same degree, since they are denied the socially useful results of the contribution that the migrants might make. In short, the concern of social science is with the character of the society to which individuals are to adjust.

Every individual in society has many personal problems which may range all the way from inferiority complexes to inability to find housing facilities. Many of these problems are in reality the incidence of a social problem on the individual. For example, it is not inconceivable that a veteran today might find himself in the position of not being able to find a job, having to house his family in a chicken-coop, not being able to provide an adequate diet for his family, and of having frequent and violent quarrels with his wife. Now it is also conceivable that, by conferring with experts trained in rehabilitation work, he might be able to work out these difficulties--to solve his problems. The individual may in effect, lift himself by his bootstraps. Certainly it is desirable that effort be exerted to this end. But solving personal problems does not solve social problems. The claim that it does rests on a confusion between these two sorts of problems.

By getting a job, a house, and working out his difficulties with his wife, this veteran will not thereby have solved the social problems of unemployment, housing, inflation, and the organization of the family of which his personal problems were symptoms. These are problems which are occasioned not by weakness or deficiencies in any particular individuals, but by the fact that the institutions of that society do not effectively correlate the activities of individuals so that all are provided with the opportunity for the fullest expression of their potentialities. And they can be solved in only one way: by the modification of the institutions involved so that full use may be made of the available scientific knowledge of the community. The solution by individuals of their personal problems is, of course, a desirable end. But the conditions under which this is possible for all individuals can only be accomplished when individuals realize that many of their personal problems are only symptomatic of social maladjustment.

This confusion of personal and social problems is also responsible for the emotional approach to the solution of problems which, however commendable in intent, serves to prolong the existence of the problem itself. Very often, for example, a genuinely admirable concern for the poor or the "unfortunate," when accompanied by a failure to see the reality of the social problem involved, leads to the conclusion that the answer lies in public or private charity. But charity is not a solution to the problem of poverty. The problem itself can only be solved by the rational attempt to get at its causes. As a social phenomenon, the problem of poverty--like other economic problems--is located in those social arrangements which determine the rules of the game in the matter of how men "make a living" in society.

Nor does the solution of social problems consist in the effort to assess moral praise or blame to any individual or group or class of individuals. Social science is not concerned with this sort of moral judgment, since it is not capable of solving problems. The determinants of problems lie elsewhere, and it is only by the rational attempt to discover what these determinants are and what alternatives are available that problems may be solved.

Why Solve Social Problems?

The serious attempt to solve social problems is an exciting adventure in the interplay of forces which are within human control and those which are not. The rational decision to modify institutions is within the area of choice of man, even though its exercise requires intelligent reexamination of long-established habits. At the same time, there are considerations in problem-solving which are outside human control. The limitations of the physical environment are an obvious example. Not so obvious is the proposition that any attempt to solve social problems must take as given data the level of scientific knowledge which is available, and that to effect a solution is to provide new institutional arrangements which will make fuller use of this knowledge.

It is this latter fact which makes problem-solving necessary. Social change is made necessary and inevitable by the fact that established institutions cannot make full use of new discoveries and inventions--of new ideas, tools, and techniques. The social process has ceased in some way to proceed efficiently. Since the social process affects individuals through institutions--prescribed patterns of human behavior--its efficiency depends on the efficiency of the structural institutions and arrangements which compose it in any given cultural order. It is inevitable, therefore, that in seeking to make their lives meaningful, men will continue to modify their institutions.

But why worry and work at the matter? Why not let the social process run its course and let social problems take care of themselves? Perhaps the best answer to these questions lies in the fact that the quality of the lives of every individual in a society depends in large part on the quality of the social arrangements which are in effect. To the degree that any members of a society are precluded from effective participation, the society itself is a sick society, and every member of it is affected thereby.

Moreover, failure to solve social problems rationally invites non-rational attempts to do the same thing. These non-rational attempts take the form of the substitution of violence for discussion and reasoned analysis, and adopt the method of war and revolution. Especially in an atomic age--but, of course, in any age--widespread use of force and violence may make social survival itself impossible. Increasingly, modern man becomes aware of the truth of the charge that the alternative to the rational modification of his institutions is death or, at best, a badly crippled community.

13. CONFRONTING FOSTER'S WILDEST CLAIM:
"ONLY THE INSTRUMENTAL THEORY OF VALUE CAN BE APPLIED!"

by
Baldwin Ranson

Many of John Fagg Foster's students and colleagues considered him to have been a world-class teacher and scholar. Those who didn't know him can scarcely judge how accurate such praise of his teaching was. But the current availability of some of his writings and lectures on a CD entitled "John Fagg Foster's Contribution to Scientific Inquiry" now permits new judgments of his scholarship.

In order to illustrate the quality of his scholarship, I propose confronting what I believe was his wildest claim: that only the instrumental theory of value can be applied. It appeared in his lectures on value theory, in which he defined value as the criterion of judgment.³⁷⁴ Here in Foster's words are three variations of this assertion:

I shall take the position that there is no escape from, there has never been any application of, and there cannot be any application of, anything but what is in fact the criterion [of judgment]. (94)

... there is no criterion of judgment in fact applied which is different than the correct theory of value ...(92)

It is impossible to apply an erroneous criterion [of judgment]. The question of value is a question of fact: what is the criterion of judgment.(93)

To assist you in evaluating this claim, I shall propose answers to four questions: 1) what does it mean? 2) on what evidence is it based? 3) how accurate is it? 4) how useful is it?

1. What does Foster's claim mean?

The meaning of this assertion hinges on the nature of the criterion of judgment and what it means to apply it. Foster saw the criterion of judgment as a tool applied (used) constantly in every person's life.

A primary characteristic of human life is the endless generation and pursuit of ends-in-view. Whenever conventional or habitual behavior is blocked, people must make judgments and choices about what to do next. Each decision maps one step forward in a person's life, aimed at changing present situations into desired futures. Bertrand de Jouvenal called decisions "conjectures" about available futures; he considered conjectures to be a "need of our species."(chapter 2)

Regardless of immediate intent, the generic function of a decision is to continue the process of choosing by selecting a course of behavior thought to be capable of linking a present "what is" to a future "what ought-to-be." Foster variously identified the instrumental criterion guiding decisions linking present and future as "efficiency" (1981:930,944) and as "developmental continuity" (1981:944,959,1010). Its current popular expression is "sustainability." It is applied by asking "What will work?" "Which next step appears most efficient for continuing my life process?" Foster considered this pursuit of continuity "an attribute of human judgment"(93), itself not subject to choice because there is no genuine alternative between continuing and ending one's life process.(138).

³⁷⁴ Edel (27) shows that others have defined value as the criterion of judgment. Valuations are applications of value.

Almost no one denies the existence of an instrumental criterion. And almost no one accepts Foster's claim that it is the only applicable criterion of judgment. Examining three objections to his claim will clarify his position.

Some economists (e.g., Bush, 85,91), influenced by Veblen's distinction between instrumental and ceremonial behavior, add to Foster's instrumental criterion a ceremonial criterion.³⁷⁵ A valuation is identified as ceremonial when it claims effectiveness that is not warranted by its consequences. But a ceremonial criterion would mean choosing a course of action BECAUSE it is expected to be ineffective. Recognizing a ceremonial criterion as well as an instrumental criterion would mean that sometimes one chooses what one thinks will work, and at other times what one thinks will NOT work. We deny that anyone ever applies a ceremonial criterion of judgment. Choices are always instrumental in intent.

Some philosophers (e.g., Habermas, 9) add to Foster's instrumental criterion an ethical and a moral criterion, dividing "what ought-to-be" into three distinct species: pragmatic [the instrumental], ethical [the good], and moral [the just]. But this division denies the unity and continuity of human experience. Foster insisted that these three names all refer to a single trait of desirability: continuity. What ought-to-be because it achieves continuity is the same as what ought-to-be morally and ethically--the position adopted by "deep ecology" (Capra, 7, 11, 297).

Some reviewers reject Foster's single criterion as patently absurd because it entails Jesus--the epitome of good--and Hitler--the epitome of evil--applying the same theory of value. That objection ignores Foster's careful distinction between value--the universal criterion of judgment not subject to human discretion--and valuation--any particular application of value which is always subject to human discretion. Jesus judged that love was the effective means for sustaining humanity, while Hitler judged that fear of power of the master race was the effective means. Both pursued continuity, regardless of how instrumental (i.e., successful, ethical) their means proved to be.

Turning from the critics, here is Foster's statement of the factual nature of both the criterion of continuity and what ought-to-be to achieve continuity:

The relation between the run of the facts and the ought-to-be-ness involved is difficult but not complicated. The criterion is a fact, and what ought to be is a fact. At any instant in anyone's experience, the present existence of the fact of judgment is a present fact, even though that judgment be about a future attainment. The rational faculty in human behavior connects the present and the future. We know for certain that the future will become the present, and our judgments now are questions of fact about a particular operation of choosing among alternatives the functioning of which are projections in human imagination into the future. You can't make a judgment in the past, in that sense. All judgments are connections between the present and the future; they are hypothetical projections of choices within one's area of discretion into combinations which are not yet.⁽⁹⁴⁾³⁷⁶

³⁷⁵ Neither Veblen in his distinction, nor Ayres in his development of it, identified a ceremonial criterion of judgment. Veblen (52ff.) saw ceremony as the result of contamination of instrumental instincts, and Ayres (chapter 8) saw ceremony as make-believe counterfeiting instrumental behavior.

³⁷⁶ Dewey expressed the "relation between the run of the facts and the ought-to-be-ness" as the need to stay in step: "Life itself consists of phases in which the organism falls out of step with the march of surrounding things and then recovers unison with it ..." Quoted in McDermott, (111). Laszlo expressed ought-to-be-ness as "states of adaptation of the human being to his biological and cultural environment." (1983: 55) and as "coherence" (2006: 63-4). Maslow asserted that "Factness generates oughtness ..."

Every human choice is an instrument of continuity in intent. No sane human chooses a course of action she believes will fail to achieve its intended result. The only apparent exception to the universal application of the instrumental criterion is by persons judged insane, that is, incapable of judgments linking causes with effects, means with ends, present with future. The insane cannot make genuine choices.(205-6)

2. On what evidence is Foster's claim based?

Some examples will provide both clarification of and evidence for Foster's assertion. We examine efforts to apply the instrumental theory of value and two supposed alternatives.

THE INSTRUMENTAL THEORY OF VALUE. Humans walk by habit, but it is a skilled habit that must be learned. Infants learning to walk can be observed making repeated judgments. They may stand supported by a chair, and eye a table where they wish to be. They recognize that walking is a more efficient form of locomotion than crawling. They make repeated efforts and, through trial and error, learn that certain movements of legs and body maintain balance and permit movement forward, while others do not.(96 ff.) This learning process epitomizes what Veblen called workmanship and Dewey and Ayres called instrumental judgment and behavior. Clearly, infants apply the criterion of developmental continuity in a manner which, when perfected, becomes scientific inquiry:

We frequently have to make judgments on very slight evidence ... And the fewer the facts, the more apt we are to make the wrong judgment. But we are acting, note, as a scientist. We are adding up evidence and drawing conclusions, the conclusions being a generalization that we then apply to the immediate matter at hand. (90)

THE UTILITY THEORY OF VALUE. The oldest and most widely accepted explanation of human choice is the utility theory of value, which identifies want-satisfaction as the universal criterion for judging what ought-to-be. Foster granted the existence of utility, and that people make hedonistic calculations of degrees of pleasure and pain. But he denied that any of that involved the criterion linking the present to the future.³⁷⁷

The utility theory sets up a taxonomy asserting that some things constitute positive motivation, and other things negative motivation. But this taxonomy fails to explain choices among alternatives leading from what is to what should be. It permits naming a state of affairs

³⁷⁷ Many writers restrict the expression "instrumental reasoning" to choices governed by the utility theory of value (Hindess, 211; Yilmaz, 843, Walsh, 3-4,112-13,134,137). That definition seems to derive from the tacit presumption that means but not ends--preferences--are capable of empirical validification. Foster rejected that arbitrarily restrictive definition and false presumption.

After equating rationality with "selection of the most efficient means to achieve a given end"(215), Shaun Hargreaves Heap discusses "the instrumental/maximizing account of rational action"(217) and instrumental calculations leading to Nash or other equilibria.(218). These are not applications of the utility theory of value. They are applications of the instrumental criterion to utilitarian ends.

John Davis treats instrumental rationality as the application by individuals of utility theory--"I-intentions"--and supplements it with an expanded normative domain (399) he calls deontological rationality--"we-intentions"(386)--to explain collective behavior, including institutions. Foster denied distinct criteria for individual and collective choices. He held that institutions originate in individual efforts to make instrumental judgments, some of which eventually become the prescribed or embedded rules and norms Davis calls collective intentionality.

Hans Joas, in his hermeneutic analysis *The Genesis of Values*, neither defines value or valuation, nor identifies criteria of judgment. Nevertheless, he boldly asserts that the goals of aesthetic creativity, individual self-realization and environmental protection are "postmaterialistic values" derived from "non-instrumental value orientations"(2-3), suggesting that he limits the instrumental criterion to judgments of utilitarian means.

as pleasure-full or not, but fails to guide inquiry to actions capable of achieving future satisfaction: "Whether it is pleasure and pain or otherwise, you still have the theory of value to explain."(117-8) As evidence, Foster challenged the orthodox argument, popularized by the Austrian economist Bohm-Bawerk, that Robinson Crusoe provides a convincing example of the universal applicability of utility value theory.

The recluse "thrown on a lonely shore without either tools or weapons" is faced with an immediate choice in sustaining his life: determining his time preference between consumption and saving. Assume that his "original productive powers" are one day's labor of nine hours.

"Suppose there is such wealth of berries that the result of nine hours' gathering gives a return such as to guarantee a subsistence ... sufficient to maintain Crusoe in health and strength. Obviously he has now a choice between two lines of conduct. Either he may take advantage of the opportunity thus offered to complete his provision, and consume each day the fruits of an entire ten hours' day of labour--in which case ... he has now no time and strength left to make a bow and arrows; or, he may content himself with the barest living ... provided by the nine hours' labour of gathering; then, and then only, has he a tenth hour free in which to make weapons for future use.(101)

For Bohm-Bawerk, utilitarian human nature and scarcity establish both the criterion and the alternatives available to Crusoe: present versus future satisfaction. Foster denied their reality and applicability. The utility theory of value is false and inapplicable because satisfaction is unrelated to survival. Nature imposes no choices between present and future income.

Now in the classical example, it is supposed that [Crusoe] needs to save or accumulate fish and goat-meat in sufficient quantities to support him while he constructs the new equipment. And ... it is further supposed that ... Crusoe must eat fewer fish in case he is already fully employed, or work longer hours in case the initial techniques have not required his full energies.

What activates Crusoe? What determines his choice to build the new devices and use the new techniques? Is it that he calculates the pain and abstention involved in making traps and nets? Is making nets more painful than grabbing fish with the bare hands?

The simple fact is that Crusoe envisions (invents) more efficient procedures, and that his present rate of production permits him to adopt them. In case he is presently "fully" employed in hourly surviving, Crusoe makes choices toward efficiency quite as well as if his present techniques provide surfeit. For example, he will fish the lee side of a bar rather than the windward side in case fish are more abundant on the protected side. ... [H]e merely adopts the more efficient techniques in the technological sense. If he did not act in this manner, he would be universally regarded as insane. In fact, in the traditional story, if he did not act on the basis of technological efficiency, he would cease to be regarded at all because he would cease to exist.(179)

In short, utility is not a criterion applicable to answering the question of what to do next in order to achieve a desired future state. Only the instrumental criterion can serve that function for Crusoe.

THE FASCIST THEORY OF VALUE. Almost as universal as the utility theory is the practice of identifying power as the criterion of judgment. Its most virulent manifestation is generally considered to be Fascism, which Foster defined as “a system in which power is the theory and the criterion of value.”(210) He defined power as “the exercise of discretion over others without responsibility to them,”(212), and granted that power-seeking is a human trait just like pleasure-seeking. But it is not a criterion of judgment capable of linking what is to what should be to achieve continuity.

Fascism rejects rationality, denying any need to justify power by reason. It tries to establish truth by the exercise of power: might makes right; the leader can do no wrong. But in pursuit of power, fascists cannot avoid explanation and reasoning. In their efforts to apply the theory, their judgments invariably seek actions expected to establish or continue what they conceive should be.(95-6) Efforts to apply that theory fail because power cannot serve as a criterion pointing to operational links between what is and what should be. In Foster’s words:

... what we mean by applicable theory is theory which does bring into intellectual availability alternatives which in fact resolve the problematic situation. If they don’t, that is what we mean by erroneous theory--theory which does not permit you to get at the right evidences or arrange them for analysis.(112)

The continuum in social affairs at all points involves purposeful human behavior: choices are, in fact, made, which is the exercise of valuation. That is to say, there is an application of the theory of value at all those points. And those points are all points at which human beings engage in consciously purposeful behavior, at which judgments and choices are made.(92)

Fascism, like utilitarianism, permits naming a state of affairs as power-full or power-less, but provides no criterion for choosing actions capable of achieving ends-in-view.

3. How accurate is Foster’s claim?

Let us return to Foster’s view of the nature of purposeful choice. Every choice originates in an observation that “what is” obstructs one’s life process. That observation motivates a search for ends and means to remove that obstruction.

The instrumental theory of value tells one to ask, “What ends and means must I choose next to continue my life?,” and one sets about identifying next steps. In our example, infants behave as if asking themselves “where should I place my foot to advance toward that table?” That is, they APPLY the instrumental theory to a developmental end.

The utility theory tells one to ask, “Am I satisfied?” In our example, if Crusoe asked, “Should I save or consume to increase my satisfaction?” as Bohm- Bawerk advised, he would have to apply the instrumental criterion in considering alternative paths to satisfaction--a non-developmental end.

Fascist theory tells one to ask, “Am I powerful?” If Hitler asked “Would eliminating inferior races make me more powerful?” he would have to apply the instrumental criterion in considering alternative paths to power--a non-developmental end.

Since the questions dictated by false theories of value are unrelated to the future, those theories CANNOT BE APPLIED to guide choices. One is forced to apply the instrumental theory in pursuit of pleasure or power as of any other purpose.

Every step in this judging process is subject to human error. "What is" may be poorly or mis-specified; the end envisioned may not be developmental; and the means selected may not be instrumental. But the error is never applying the wrong criterion.

I suggest two reasons why we find Foster's assertion contrary to logic and common sense. One is the habit of talking as if any theory is applicable at will, e.g., Hitler was a fascist and, of course, applied fascism. This habit fails to distinguish between genuine and imaginary choices. And two is the habit of believing that only means are subject to instrumental validification. Ends are treated as immaterial and unverifiable.

I conclude that Foster's critique of these semantic habits is valid. The only applicable criterion of judgment is the instrumental criterion. Hitler's intent was continuity--a thousand year Reich--but his choices brought rapid disaster to him and millions of others, not because he applied a non-developmental theory of value but because he tried to apply a false theory.

4. How useful is Foster's claim?

Recognizing the accuracy of Foster's claim is useful, first, in eliminating the common confusion between a universal criterion and situation-specific applications, a confusion clearly stated by Anne Mayhew: "What makes institutional economics truly radical is that there is no 'ought to be' that both has usefully specific meaning *and* transcends a particular time and place."(895) Following Foster, what ought-to-be at each particular time and place is that action most likely to contribute transcendently to the developmental continuity of the entire community. Error is located not in the criterion of continuity, but in understanding its concrete conditions at each moment of choice in each human's life process.

Secondly, Foster's assertion shows how to respond to sterile hermeneutic and relativistic arguments that value and valuations lack empirical warrant. The instrumental criterion reveals the inseparability of judgments of what is from judgments of what should be. Every choice involves both.

Finally, Foster's claim confirms that applicability is the final test of the correctness of theories: "the building of a generalization and the process of verification through application [are] not separate, nor [can] either exist without the other."(88)

Employing these insights of Fagg Foster's would increase our capacity as social scientists to help society recognize and overcome the ignorance that obstructs its developmental continuity.

references

- Ayres, Clarence E., The Theory of Economic Progress. Kalamazoo, MI: New Issues Press, [1944]1978.
- Bohm-Bawerk, Eugen von, The Positive Theory of Capital. NY: Stechert & Co, [1888]1923.
- Bush, Paul D., "The Methodology of Institutional Economics: A Pragmatic Instrumentalist Perspective" in Marc Tool, editor, Institutional Economics: Theory, Method, Policy. Boston: Kluwer Academic Publishers, 1993.
- Capra, Fritjof, The Web of Life. NY: Anchor Books, 1996.
- Davis, John B., "Collective intentionality, complex economic behavior, and valuation" in John Davis, Alain Marciano, and Jochen Runde, editors, The Elgar Companion to Economics and Philosophy. Northampton, MA: Edward Elgar, 2004.
- Edel, Abraham, "The Concept of Value and Its Travels in 20th-Century America" in Murray G. Murphey and Ivar Berg, editors, Values and Value Theory in 20th-

- _____. Century America. Philadelphia: Temple University Press, 1988.
- Foster, John Fagg, "The Papers of John Fagg Foster." Journal of Economic Issues, 25 (December 1981).
- _____, "John Fagg Foster's Contribution to Scientific Inquiry." 2007. Available on compact disc from ranson@forevermail.com and on the web site of the University of Missouri-Kansas City under the caption of readings: cas.umkc.edu/econ/Institutional/Index.htm.
- Habermas, Jurgen, Justification and Application. Cambridge, MA: The MIT Press, 1993.
- Hargreaves Heap, Shaun, "Rationality and Maximization" in Geoffrey Hodgson, Warren Samuels, and Marc Tool, editors, The Elgar Companion to Institutional and Evolutionary Economics, Brookfield, VT: Edward Elgar, 1994, v. 2.
- Hindess, Barry, "Rational Actor Models" in Geoffrey Hodgson, Warren Samuels, and Marc Tool, editors, The Elgar Companion to Institutional and Evolutionary Economics, Brookfield, VT: Edward Elgar, 1994, v. 2.
- Joas, Hans, The Genesis of Values. Chicago: University of Chicago Press, 2000.
- Jouvenal, Bertrand de, The Art of Conjecture. NY: Basic Books, 1967.
- Laszlo, Ervin, Systems Science and World Order. NY: Pergamon Press, 1983.
- _____, Science and the Reenchantment of the Cosmos. Rochester, VT: Inner Traditions, 2006.
- Maslow, Abraham, "Fusion of Facts and Values." American Journal of Psychoanalysis, 23(1964):117-131; quoted in Laszlo, Systems Science and World Order, p. 54.
- Mayhew, Anne, "Waller on Radical Institutionalism: A Comment." Journal of Economic Issues, 25(September 1990):890-96.
- McDermott, John J., "The Gamble for Excellence: John Dewey's Pedagogy of Experience" in Murray G. Murphey and Ivar Berg, editors, Values and Value Theory in Twentieth-Century America. Philadelphia: Temple University Press, 1988.
- Veblen, Thorstein, The Instinct of Workmanship. NY: Norton. [1914]1941.
- Walsh, Vivian, Rationality, Allocation, and Reproduction. Oxford: Clarendon Press, 1996.
- Yilmaz, Ferudun, "Veblen and the Problem of Rationality." Journal of Economic Issues, XLI (September 2007):841-62.
