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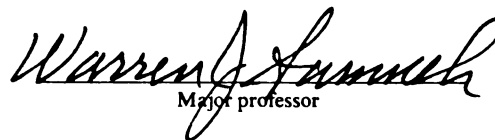
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THE PROBLEM OF THE MULTIPLE
INTERPRETATIONS OF RICARDO

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ERCÜMENT GALİP AKSOY

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THE PROBLEM OF THE MULTIPLE INTERPRETATION OF RICARDO

ABSTRACT

THE PROBLEM OF THE MULTIPLE INTERPRETATION OF RICARDO

By

Ercüment Galip Aksoy

Volume I

A DISSERTATION

The economic principles among the most controversial subjects in economics. There is in general a vast spectrum of interpretations, each claiming validity, each portraying a different version of Ricardo. The disagreements about Ricardo's economics are not confined to certain aspects of his theories but rather are about the general character of his theories and his thought.

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

This study investigates the problem of Ricardo and the problem of multiple interpretation. These include the interpretations by Malthus, Marshall, Marx, Mitchell, Schumpeter, Knight, Stigler, Sraffa and S. Hollander. The analysis reveals that the literary style of Ricardo, the DOCTOR OF PHILOSOPHY available to interpreters and the difficult nature of Ricardo's subject matter contribute to the multiplicity of interpretation. Ricardo's method of working with so-called *single cards*, the normative-ideological-political orientation of the interpreters, and the difference of perspective are found to be major causes of the multiplicity of interpretation.

The study also examines the interpretive methodologies used and examines the significance of the problem of multiple interpretation from the perspective of hermeneutics. The hermeneutical analysis reveals that the majority of the interpretations followed hermeneutic methodologies by placing Ricardo's intentions as the basis of their interpretive

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enterprises or by claiming objectivity as the basis of their choice of the criteria used. The majority of the interpretations, which is applied to the study, are used as a means of justification. The study shows that the majority of the interpretations are the use of certain exegetical canons. The hermeneutical analysis reveals that the use of canons improves interpretative

ABSTRACT

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The hermeneutics oriented nature of economics that is dominant in the study is revealed

to logical positivism.

The economic principles of David Ricardo are among the most controversial subjects in economics. There is in general a vast spectrum of interpretations, each claiming validity, each portraying a different version of Ricardo. The disagreements about Ricardo's economics are not confined to certain aspects of his theories but rather are about the general character of his theories and his place in the history of economic thought.

This study investigates the leading interpretations of Ricardo and the problem of multiple interpretation. These include the interpretations by Malthus, Marshall, Marx, Mitchell, Schumpeter, Knight, Stigler, Sraffa and S. Hollander. The analysis reveals that the literary style of Ricardo, the changes in the body of material available to interpreters and the difficult nature of Ricardo's subject matter contribute to the multiplicity of interpretation. Ricardo's method of working with so-called strong cases, the normative-ideological-political orientation of the interpreters, and the differences of perspective are found to be major causes of the multiplicity of interpretation.

The study also examines the interpretative techniques used and assesses the significance of the problem of multiple interpretation from the perspective of hermeneutics. The hermeneutical analysis reveals that the majority of the interpreters followed formalistic methodologies by placing Ricardo's intentions at the center of their interpretative

enterprises or by claiming objectivity on the basis of their beliefs about the objectivity of the criteria used. The majority of the interpretations show an appeal to Ricardo's intentions as a means of justification. The study claims that objectivity cannot be achieved through the use of certain exegetical canons. The hermeneutic circle cannot be broken. A conscious use of canons improves interpretative consistency and may help to differentiate between a "good" and a "bad" interpretation but does not provide the interpreter with an objective or scientific formula. The theoretical contributions of Marx, Marshall and Sraffa are seen as "applications" and are to be interpreted and evaluated on their own merits, not by the degree to which they claim to approximate the original intentions of Ricardo. The problem presented by the Ricardo example indicates a need for hermeneutical consciousness and the hermeneutics oriented nature of economics. Such characterization appears as an alternative to logical positivism.

CHAPTER ONE

ACKNOWLEDGMENTS

I wish to thank my advisor and teacher Professor Warren J. Samuels for his support, patience, fruitful suggestions and guidance through the complexities of the problem.

I also wish to extend my sincere thanks to the committee members, Professor John P. Henderson for introducing to us and for sharing with us his immense knowledge of Ricardo, Professor Robert Solo for provocative teaching and insightful comments, and Dr. Jeff E. Biddle for his assistance and suggestions. I would like to thank Christina Meroer for the help with editing and for fastidious typing. Finally, I would like to thank my wife, Asuman, for her patience and unfaltering support without which this dissertation would not have reached completion.

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CHAPTER ONE: INTRODUCTION

In his Essay on the Production of Wealth, Robert Torrens declared in 1821 that "with respect to Political Economy the period of controversy is passing away and that of unanimity is rapidly approaching. Twenty years hence there will scarcely exist a doubt respecting any of its fundamental principles." More than one hundred and fifty years later, the economic principles of David Ricardo still remain one of the most controversial subjects in the history of economic thought. There is in general a vast spectrum of interpretations, each claiming validity; each portraying a different version of Ricardo. Interpreters of Ricardo generally agree that he was one of the greatest economists of all time. However, they disagree on the meaning and the significance of his theories. By the 1930s, in spite of wide differences of opinion about the details of Ricardo's system, there was something of a consensus on the basic core of his economic theory. Publication of the complete works of Ricardo by Piero Sraffa (including Sraffa's famous introduction) in 1951 and publication of his own work, Production of Commodities by Means of Commodities in 1960 brought a new set of opposing interpretations. The famous Capital Controversy and the Post-Keynesian (later neo-Ricardian) critique of the orthodox neoclassical theory introduced hosts of new issues and a flood of new literature. These controversies contributed to the revival of interest in the Ricardian theories. Finally, with the publication of Samuel Hollander's book, The Economics of David Ricardo, which challenged the entire body of previously established Ricardo scholarship, the Ricardian theories have again been brought to the forefront of economic investigations. The debates between interpreters of Ricardo have grown out of the context of Ricardo and have developed into debates between conceptualizing perspectives.

This study investigates the leading interpretations of Ricardo. Part of the stimulus for the study derives from the fact that the recent interpretations of Ricardo are not simple reassessments of a forgotten ancient economist buried in the history of economic thought,

but are rather intimately connected with the subject matter and the scope of economics and economic analysis. Another stimulus derives from the observation that the hermeneutic problems posed by examples of different interpretations turn out to be much more interesting and revealing than the examples themselves. The exploration of the various interpretations lead one to the basic questions of how two economists can view the same material so differently, and of how a particular approach to a problem or a text in economics has so many different implications. These implications offer politically, sociologically and ideologically opposing pictures of an economic system with opposing problems and imperatives. Different interpretations produced in different times in the history of economic thought reflect the changes that took place in terms of approaches to economic problems and the changes in judgment about the importance and relevance of various theories. They also point to an observation that each generation of economists feels the need for reinterpreting history in the light of accumulated knowledge and current developments. Still more fundamentally, the fact that there exists so many conflicting and influential interpretations of Ricardo points to the hermeneutically oriented nature of economics as a discipline. This dissertation attempts to consider these problems.

The analysis of this dissertation is developed in two parts. Part One, consisting of seven chapters, examines at length different interpretations of Ricardo's economics. This part attempts to reconstruct the significant aspects of various interpretations, the exegetical methods used by the interpreter and the underlying elements which shaped the vision of the interpreter. The selection criteria for the interpreters to be included in this study are: they represent a cross section of major influences in the history of economic thought; and they have been the most influential interpreters and/or they follow distinctly different interpretative approaches. This study includes the following interpreters but is not strictly confined to them: T.R. Malthus, K. Marx, A. Marshall, W.C. Mitchell, J.A. Schumpeter, F.H. Knight, G. Stigler, P. Sraffa, and S. Hollander. With such a wide selection of economists who are generally associated with diverse schools, it is hoped that a



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wide spectrum of interpretations, expressing points common to major schools of thought in the history of economics, will be obtained. The question as to which aspects of Ricardian economics should be studied is left to the individual emphasis of these interpreters focused largely on the Ricardian theory of value and distribution. Little attention is devoted to details of other concerns, such as the theory of comparative advantage, and the theory of money and taxation because these interpreters did not concentrate on such issues. The study does not start with a certain fixed definition of interpretation and reconstruct the interpretations of these economists on the basis of an assumed definition of the act of interpretation, a larger conception of interpretation is used in this study. In other words, if a given interpreter chose to evaluate and pass judgment according to some rule or standard as part of his/her interpretation, this study does not try to sanitize or objectify that approach. It is one of the purposes of this study to establish and examine alternative modes of interpretation from the perspective of hermeneutics. For this reason, if it is claimed by the interpreter (implicitly or explicitly) or by other influential economists that the given interpreter has made "use" of theories and views advanced by Ricardo and has furthered them significantly or has applied them to construct other systems, their particular contributions (in addition to their directly expressed views on Ricardo) are also investigated. In some instances the interpreters adapted the interpretations of other economists without much elaboration and proceeded further with their own using these views as building blocks. In such instances we investigated the borrowed views as well.

Part Two critically examines and analyzes these interpretations and the problem posed by the multiplicity of interpretations. This part is made up of three chapters. Chapter Nine is a critical overview of the interpretations investigated. It highlights the key aspects of interpretations investigated, compares and contrasts them, and places them in a broader context. It assesses the significance of the interpretations. This chapter identifies certain interpretative problems that arose and also points to issues which are hermeneutically significant, to be investigated in the remainder of this study. Some

examples of such issues are: the conflicting passages in Ricardo's total body of writings; ranking of diverse writings of Ricardo according to operational significance of assumed variables; interpreters' awareness or differentiation between explanation, criticism, evaluation, judgment, application, etc.; the exegetical canons used in understanding and uncovering meaning; "historicism of understanding," time as a hermeneutic barrier to "true" hermeneutic understanding; intentions of Ricardo as a criteria of interpretation; claims to objectivity; and the bases of such claims, etc.

In Chapter Ten attention turns to the analysis of the problem posed by the multiplicity of interpretation of Ricardo's economics. The analysis of this long chapter revolves around the following questions: why does such multiplicity of interpretation exist; how does it come about; and what is the significance of it? In answering these questions, based on the interpretations investigated, we find the following factors to be relevant: First, the literary style of Ricardo is seen as a factor contributing to the multiplicity of interpretations. Indeed Marshall attributed almost all confusions about Ricardian economics to his inability to express his ideas clearly.

Second, changes in the body of material available to interpreters is seen as a contributing factor. Recent interpreters are faced with a larger body of material (included in Sraffa's edition) than were available to previous interpreters. We shall investigate which "new" materials caused what kinds of divergence in interpretation.

Third, the complex and multi-faceted nature of Ricardo's subject matter is seen as a cause of multiplicity of interpretation. It is generally accepted that Ricardo dealt with complex problems of value, distribution and economic growth. Yet, interpreters varied in their perceptions of the nature and scope of Ricardo's economics. One of the purposes of this section is to understand the nature of the correlation between the interpreters' perceptions of Ricardo's "system" and the interpretive consequences of such perceptions. This section also attempts to show similarities and divergences between the problems

Ricardo dealt with and the theoretical difficulties encountered in the economic analyses of Marx, Marshall, and modern theories of distribution and economic growth.

Fourth, Ricardo's method of using so-called strong cases is seen as one of the major causes of multiplicity of interpretation. This section investigates various interpretations of Ricardo's method and shows that interpreters' perception of Ricardo's method influenced greatly the method adapted by interpreters in approaching Ricardo's economics. It also caused interpreters to assign varying degrees of importance to variables which are perceived to be operational. This section also investigates the justification or support that the interpreters provide in the assumption of strong cases as abstractions from complicating factors; and the impact of divergence of judgments about the appropriateness of such methods for economic analysis on the interpretation and evaluation of Ricardo's economics.

Fifth, ideological and normative elements are seen as significant factors causing multiple interpretation. This section attempts to study the complex relationships between the ideological and the normative make-up of both the interpreters and the interpretations of Ricardo. We attempt to show the reflections of the normative and positive elements inherent in Ricardo's theories on the interpretations, and claim that ideological orientations of the interpreter legitimize a socio-political system by providing a framework and interpretative questions and by forming interpretive hypotheses. One of our further purposes in this section is to ascertain the ways and degrees to which interpreters' awareness and acceptance of ideology as an element of interpretation (i.e., as an explaining factor) influence their interpretation. This last issue inevitably takes us to the investigation of methods used in eliminating ideology from interpretative analyses.

Sixth, differences of perspective (other than ideological and political) are seen as a source of multiplicity. The purpose of this section is to study the impact of different perspectives on the Ricardo interpretations. We find that interpreters have brought out many issues that later came to be associated with Ricardo's economics. In this connection

we estimate the impact of Marx's, Marshall's and Sraffa's own contributions on the perspectives of interpreters that followed and ascertain the degree to which the differences of interpretive perspectives lead to different conclusions.

Finally, the multiplicity of interpretation is seen as an outcome of different interpretive styles. We claim that interpreters used a style which served best to their normative and ideological composition and their general perspective. Conversely, the different styles of interpretation lead to different interpretive hypotheses. This section approaches the problem from a hermeneutic perspective and tries to lay the foundations of the analysis of the hermeneutic significance of multiple interpretation problem in Chapter Eleven. Our purpose is to examine the interpretive style of each economist and to identify some of the problems of interpretation that arose in their investigations. We seek to show relationships between the problems identified and the principles proposed by classical hermeneutics in overcoming such difficulties. We also investigate some principles of exegesis and the interpretive canons proposed by interpreters of Ricardo, and place these principles in a broader context.

Based on the problems identified, in Chapter Eleven attention is turned to the assessment of the hermeneutic significance of the multiple interpretation problem. This chapter attempts to trace the major influences in hermeneutics with special reference to the problem posed by diverse interpretations. In this connection we examine crucial issues such as formalism based on the belief that interpreters should recreate and reflect the intentions of the original author. Relatedly, the principle of the hermeneutic circle as one of the most general canons of interpretation and as a critique of objectivism is studied. Within the evolution of hermeneutics-- from an art of exegesis based on fixed canons of interpretation to hermeneutics as a general philosophy of understanding-- the claims to objectivity and "correctness" of interpretation are put to the test. Two of our most general and perhaps most significant purposes is to identify hermeneutical consciousness and to

assess the repercussions of hermeneutic philosophy as an alternative to positivism in interpretation.

Finally, Chapter Twelve restates some of the conclusions of this dissertation concerning the individual interpretations and the problem of multiple interpretation itself independent of Ricardo and his interpreters.

PART ONE: INTERPRETATIONS OF RICARDO

CHAPTER TWO: MALTHUS ON RICARDO

Thomas Robert Malthus (1766 - 1834) may have been the one economist who understood Ricardo better than any other. He was both a very close friend and an adversary. Until a few weeks before Ricardo's death, they were constantly in touch, discussing personally and corresponding intensely about problems and issues of Political Economy. They first met in the summer of 1810 in Malthus' initiative, possibly prompted by the publication of Ricardo's essay, "High Price of Bullion," of which Malthus had a favorable opinion. Their relationship developed into an honest intellectual friendship. In spite of their intellectual and scientific differences and their rivalry for the dominance of political economy of the time, they were very close and uncommonly fond of each other.¹ Given this closeness, the authority of Malthus on political economy, and Ricardo's known reactions to Malthus' criticisms, his interpretation of Ricardo becomes especially important.

The purpose of this section is to investigate Malthus' interpretation of Ricardo's economics. While it is not our intention to undertake a comprehensive comparative study of the economics of Malthus and Ricardo, it is necessary to compare their respective theories and especially their views of each other's theories.

The main sources for Malthus' interpretation of Ricardo are his Principles of Political Economy (1820)², Ricardo's On the Principles of Political Economy and Taxation (Chapter XXXII)³ and their correspondence.⁴ Sraffa's edition of The Works and Correspondence of David Ricardo includes a total of 167 letters exchanged between them: 92 letters from Ricardo to Malthus and 75 from Malthus to Ricardo. These letters, almost exclusively devoted to economic issues and problems, are fascinating documents which provide clues and evidence for both economists' perspective, their respective approaches to economic situations, and to their mode of reasoning and theorizing. Both Ricardo and Malthus seemed to be little influenced by current events, preferring to discuss theoretical

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topics very systematically and insistently. A wide range of topics were covered, but it is possible to detect the dominance of certain topics at certain times. Attention was devoted to currency and foreign exchange issues in their early correspondence of 1811-12. The letters of 1815 were more concerned with the issues of rent, profit and the price of corn. Later, the dominant subject in the letters of 1823 was the invariable measure of value.

Nevertheless, Malthus claims that Ricardo's abstract, deductive methodology was essentially unsuitable

A. political General Character and Methodology of Ricardo's Works: "One of error "at present among the scientific writers on political economy," was their propensity toward

simplification. Malthus claimed that Ricardo had an abstract and deductive methodology, and he had a tendency to simplify and generalize on the basis of models constructed by taking only the strongest variables into consideration. He believed that Ricardo had a simple and consistent system investigating value and distribution and the consequent accumulation problem, "in which they conform to actual, historical experiences."¹¹

Malthus had the highest respect for Ricardo. He considered him "the most ingenious man"⁵ he had ever known and did not hesitate to express his admiration openly in the Introduction to his Principles:

his "say I have so very high opinion of Mr. Ricardo's talents as a political economist, and so entire a conviction of his perfect sincerity and love of truth, that I frankly own I have sometimes felt almost staggered by his authority, while I have remained unconvinced by his reasonings."⁶

Likewise, Ricardo considered Malthus the leading authority on political economy and Malthus did not consider some of the explanatory factors and dealt with only strong cases generously acknowledged Malthus' contributions.⁷ As stated in the Introduction to his

Principles, Malthus believed that the value of Ricardo's work resided in its "ingenuity and consistency"⁸ with which the selected topics were discussed and developed into a system. This consistency was due in part to Ricardo's "mental powers" and "staggering authority," and in part to limiting himself to a few selected problems. However, this very point, the

simplistic precision, is criticized by Malthus for producing unrealistic results and limiting the applicability of projected results to real life experiences. Malthus saw the science of

summarizes his critique of Ricardo's methodology.

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political economy resembling more closely the science of morals and politics than the science of mathematics.⁹ This would seem to differ from his earlier statement that "many of the questions both in morals and politics seem to be of the nature of the problems de maximis et minimis in fluxions; in which there is always a point where a certain effect is the greatest, while on either side of this point it gradually diminishes."¹⁰ Nevertheless, Malthus claims that Ricardo's abstract, deductive methodology was essentially unsuitable for political economy as he understood it. He contends that the major source of error "at present among the scientific writers on political economy," was their propensity toward simplification and generalization without giving sufficient consideration to all the relevant factors that explain a given economic situation. Malthus believed that "not only the strongest and the most important, but all relevant variables should be admitted into economic analysis and the best test for the truth and usefulness of economic theories is the degree with which they conform to actual, historical experiences."¹¹

Malthus believed that Ricardo's simple and consistent system investigated value and distribution and the consequent growth (accumulation) problem. His system revolved around a few variables he believed to be the most important ones and upon which he built his "strong cases." Malthus turned around Newton's methodological rule that no more than necessary causes should be admitted and interpreted but all the necessary factors should be admitted, no matter how slight their impact may be. Ricardo believed that Malthus did not consider some of the explanatory factors and dealt with only strong cases which limited realism and the applicability of his system to real life experiences. Yet, Ricardo reached conclusions from the model thus constructed and recommended them as solution to practical problems. According to Malthus, this is Ricardo's major methodological weakness.¹²

The lengthy passage quoted below, which is a statement of Malthus' methodological position, emphasizes mutual causation and inductive reasoning, summarizes his critique of Ricardo's methodology:

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its measurement in monetary units falls in the theory of pricing. Malthus recognizes that the same tendency to simplify and generalize, produces a still greater disinclination to allow of modifications, limitations, and exceptions to any rule or proposition, than to admit the operation of more causes than one. Nothing indeed is so unsatisfactory, and gives so unscientific and unmasterly an air to a proposition as to be obliged to make admissions of this kind; yet there is no truth of which I feel a stronger conviction than that there are many important propositions in political economy which absolutely require limitations and exceptions; and may be confidently stated that the frequent combination of complicated causes, the action and reaction of cause and effect on each other, and the necessity of limitations and exceptions in a considerable number of important propositions, from the main difficulties of the science, and occasion those frequent mistakes which it must be allowed are made in the prediction of results.¹³

B. arth On Value The measurement of labor in the creation of value is taken for granted by both Malthus and Ricardo. It is the measurement that was the issue between Ricardo and Malthus. Malthus believed that Ricardo had a labor-embodied theory of value. In Malthus' view, Ricardo was concerned with the measurement of exchange value in real terms such that the relative value of commodities will be governed by relative quantities of labor bestowed on their production. When two commodities altered in value, Ricardo wanted to ascertain which of them fell and which of them rose in value. For this purpose he searched for an invariable measure of value, but found none and provisionally assumed gold to be invariable. Ricardo did not have any explanation for "nominal value in exchange" (price). This is because, according to Malthus, he did not have a correct understanding of demand since he ignored an essential element of demand: "wills and wants of man." Both Ricardo's belief in the "Law of Markets" and his theory of income distribution were outcomes of his theory of value.

I am only endeavouring to ascertain the circumstances which determine the comparative values of the commodities ... The question agitated between you and Malthus is totally different - it is, what are the circumstances which determine the ability of value to any commodity? This is a question which I believe is quite insoluble, but at any rate it does not come within the scope of my inquiries - I leave it to be settled by my readers.

Ricardo Malthus distinguishes the causes of value from the measure of value. This distinction is somewhat more clearly stated in the Second Edition of his Principles. An inquiry into the causes of value necessitates a theory of the nature of value, and inquiry into

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its measurement in monetary units falls in the theory of pricing. Malthus recognizes that labor-embodied is the principal cause of value:

The labour worked up in a commodity is the principal cause of its value, but it will appear in this chapter [Ch.II] that it is not a measure of it. The labour which a commodity commands is not the cause of its value, but it will appear in the next chapter to be the measure of it.^{13a}

This passage points to an important disjunction between the cause and measure of value that, according to Malthus, labor-embodied is the main cause; labor-commanded is the measure of value. Malthus has no open disagreement with Ricardo over the importance of labor in the creation of value. It is in the measurement of value that he dissents from Ricardo. The importance of labor in the creation of value is taken for granted by both Malthus and Ricardo. It is the measurement that was the issue between Ricardo and Malthus. In their correspondence there is no debate over whether or not labor was the principal cause of value.

Ricardo took up this matter, and studied the problem of different proportions or durabilities of capital causing differences in the relative exchange values through their effect on wages in his last paper on "Absolute Value and Exchangeable Value." Malthus was probably not aware of this work. So far as Ricardo and Malthus were concerned, the debate was over the measurement of value. Ricardo's preoccupation with the measurement issue, and not so much the source of value, is evident from his correspondence with McCulloch. McCulloch found the debate between Ricardo and Malthus over the measure of value very abstract and "quite insoluble":

I am only endeavouring to ascertain the circumstances which determine the comparative values of the commodities ... The question agitated between you and Malthus is totally different - it is, what are the circumstances necessary to give invariability of value to any commodity? - This is a question which I believe is quite insoluble, but at any rate it does not come within the scope of my inquiries - I leave it to be settled by my masters.^{13b}

Ricardo, too, believed that the disagreement with Malthus was over the measurement issue and that his inquiry was directed at finding the laws which would measure the variations in

relative exchange values. According to Malthus, Ricardo adapted a measure which excluded short run variations, aimed at establishing the rules which regulated the "natural values" of mass-produced commodities which he believed would ultimately regulate the market prices. Ricardo's theory of value predicted that the natural value of mass-produced commodities are determined and measured by the relative quantities of labor employed upon the production of these commodities.

Malthus starts by quoting Smith's version of the labor theory of value and claims that Smith confined his theory to the early and rude states of society, and rejected it for more advanced states. In contrast, Ricardo believed that his labor-embodied theory of value was true for the early and rude states as well as for advanced societies. According to Malthus' interpretation of Ricardo, the exchangeable value of a commodity, the quantity of any other commodity for which it will exchange, depended on the relative quantity of labor which was necessary for its production. Malthus recognizes that Ricardo was not concerned with determination of actual market prices¹⁴ but sought a general principle according to which relative values would be governed.

Malthus contends that "the relative values of commodities are not only not governed, but are very far from being governed, by the relative quantities of labor bestowed on their production."¹⁵ So, labor worked up in commodities neither determines nor measures the rate at which commodities exchange with each other. Malthus' principal objection to Ricardo's labor-embodied theory of value was that production took time and even in the early states of society, to make even a bow and arrow, the wood and reed had to be properly dried and seasoned; Malthus concludes that:

"the time that these materials must necessarily be kept by the workman before his work is completed, introduces at once a new element into the computation of cost. We may estimate the labour employed in any sort of capital just upon the same principle as the labour employed in the immediate production of the commodity. But the varying quickness of the returns is an entirely new element, which has nothing to do with the quantity of labour employed upon the capital, and yet, in every period of society, the earliest

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as well as the latest, is of the utmost importance in the determination of prices."¹⁶

As is known, Ricardo in fact conceded the point and modified his basic construction of the First Edition. In addition to "varying degrees of quickness of the returns," Ricardo himself added two other exceptions; one arising from the greater or less proportion of fixed capital employed in different commodities, and the other arising from unequal durability of capital. He must have been convinced of the justness of Malthus' objection, for in spite of the opposition of his best friends and supporters, James Mill and McCulloch, his Third Edition contained all these modifications.¹⁷ In fact, when James Mill used Ricardo's labor theory of value in its purest form, without any modifying principles in his Elements of Political Economy¹⁸, Ricardo found it damaging to his theory:

If a watch and a common jack altered in relative value without any more or less labour being required for the production of either of them, could we say that the proposition "that quantity of labour determines exchangeable value" was universally true? What I call exceptions and modifications of the general rule, you appear to me to say, come under the general rule itself.¹⁹

By the same token, he did not find Malthus' objection damaging to the truth of his basic construction. Ricardo claims that:

In the relative variations of [the exchange value] of commodities, any other cause, but that the quantity of labour required for production, was comparatively of very slight effect.²⁰

Malthus, however, in spite of Ricardo's concessions and the introduction of his modifying principles, insists on the significance of his objection and claims that labor-embodied theory of value can not be maintained. His main criterion for rejecting Ricardo's measure of value (labor-embodied) is one of variability. He consistently and very repetitiously²¹ argues that there may be variations in the price of commodities unaccompanied by any proportionate variations in the quantities of labor which they had cost. He supports his argument with historical examples of countries such as India, Germany, Poland, and "America." Using one standard, invariability, to discredit Ricardo's measure of value, Malthus interprets his search for an invariable measure of value to be the same thing as

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finding a measure of value. He lumps the two problems together, labor-embodied being exchanged for each other, as Malthus, in a rather rambling and hard-to-follow passage, the regulator and the invariable measure of value, and comes to the conclusion that neither gold nor precious metals nor labor-embodied can be reliable measures of value.

Malthus then proposes his own measure of real value in exchange:

When the value of an object is estimated by the quantity of labour of a given description (common day-labour, for instance) which it can command it will appear to be unquestionably the best of any one commodity, and to unite more nearly than any other, the qualities of real and nominal measure of exchangeable value.²²

In choosing labor-commanded as his measure, Malthus abandoned the standard he had hitherto been using to discredit Ricardo's measure (i.e. invariability) and adapts new standards. According to his new standards, labor-commanded is the best measure of value because a) it is the one "most extensively the subject of exchange" and b) "the accumulation of capital, and its efficiency in the increase of wealth and population, depends almost entirely upon its power of setting labour to work; or, in other words, upon its power of commanding labour," and c) it fits well with the Demand and Supply theory.²³ Ricardo finds Malthus' reasons for choosing a new measure (labor-commanded) irrelevant and complains that Malthus' proposed measure is also not invariable:

"I object to your measure of value ["], says Mr. Malthus ["] because it is not so invariable as you represent it, - there are causes of variation which affect it for which you have not made due allowance." Who would not suppose then that when he proposed a measure of value he would propose one free from these objections? He does quite the contrary, he proposes a measure which is not only variable in itself, but particularly variable, on account of its connection with other variable commodities, and in his reasons for choosing it gives several which have no reference to the subject, for nothing is to be considered in a measure of value but its invariability or its near approach to that character.²⁴

But Malthus seems not to be bothered by Ricardo's objection and defends his measure against Ricardo's, claiming that Ricardo's measure is extremely narrow since "it involved merely one cause [labor-embodied] of exchangeable value" and his own measure "involved all the different circumstances which influence the rates at which commodities are actually

Malthus recognizes two other sorts of value: value in use (which is the measure for value in

exchanged for each other."²⁵ Malthus, in a rather rambling and hard-to-follow passage, defended his measure, claiming that it is the closest one to the best:

... In the progress of improvement and civilization it generally happens, that when labour commands the smallest quantity of food, it commands the greatest quantity of other commodities, and when it commands the greatest quantity of food, it commands the smallest quantity of other necessities and conveniences; so that when, in two countries, or in two periods, differently advanced in improvement, two objects command the same quantity of labour, they will often command nearly the same quantity of the necessities and conveniences of life, although they may command different quantities of corn. It must be allowed then, that of any one commodity, the quantity of common day-labour, which any article will command, appears to approach the nearest to a measure of real value in exchange.²⁶

2. **Ricardo's Theory of Price**

a) Value, price, and different sorts of value:

Malthus differentiates value from price and criticizes "political economists" for failing to distinguish the two:

Great confusion would be occasioned by not distinguishing value from price, as all political economists are constantly in the habit of using the term value.²⁷

Malthus claims that value of commodities should be measured in terms of a commodity (money not excluded). So, for Malthus "the nominal value of a commodity is strictly speaking its value in any one commodity named... This sort of value has been usefully designated by the name of price." So, price is just another name for "nominal value in exchange" and can be measured in the process of exchange in terms of any commodity wished: price in corn, price in cloth. Malthus immediately adds that "whenever it occurs without the above additions [i.e. "in corn," "in cloth," etc.] it is always understood to mean the value of a commodity estimated in precious metals, or in the currency of different countries which profess to represent them."²⁸ In addition to "nominal value in exchange," Malthus recognizes two other sorts of value: value in use (which is the reason for value in

exchange) defined as the utility of an object, or intrinsic capacity of an object to satisfy wants of mankind; and real value in exchange which is the "quantity of the necessities and conveniences of life which those wages, incomes or commodities will enable the possessor of them to command."²⁹ Now, Malthus believed that Ricardo's theory of value dealt with the measurement of "real value in exchange" but as far as the "nominal value in exchange" is concerned, Ricardo, according to Malthus, did not have any explanation; in the modern sense, Ricardo did not have a theory of price.

b) Demand and Supply as determinants of price:

Malthus believed that "the relative values of commodities in money, or their prices, are determined by the relative demand for them, compared with the supply of them,"³⁰ and that this law was universally true. Demand and supply, according to Malthus, should not be taken separately but always in relation to each other. Demand, accordingly is defined as the will and power to purchase; and Supply is the production of commodities with the intention of selling. Prices are determined and changed according to the proportions of demand to supply. Referring to Ricardo's system, Malthus says:

With regard to a class of commodities of the greatest extent ... the existing market prices are ... determined upon a principle quite distinct from the cost of production, and that these prices are in reality almost always different from what they would have been, if this cost had regulated them.

Ricardo's reply is: "It is admitted by everybody that demand and supply govern market price, but what is it determines supply at a particular price? cost of production. Why is corn almost invariably higher here than in France? not on account of the greater demand for it, but on account of its superior cost of production in this country."³¹ Ricardo believed that change in market price is not the principle problem of political economy:

Money price, Mr. M. justly calls nominal price. The principles of political economy cannot be explained by the changes which take place in nominal price.³²

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"Greater sacrifice" can be interpreted as the demand curve having a steep slope (inelastic) and "into that question, I [Ricardo] do not at present inquire."³³ But, according to Malthus, Ricardo's lack of a theory of price cast in terms of the "universally accepted" laws of demand and supply, stemmed from his incomplete conception of demand.

c) Demand curve, shifts, movements, elasticities

Ricardo, according to Malthus, used the term "demand" rather differently. He quotes Ricardo saying that "the demand for a commodity cannot be said to increase, if no additional quantity of it be purchased or consumed." So, according to Malthus, Ricardo considered only the extent of demand and "it is not in the sense of mere extent of consumption that demand raises prices, because it is almost always when prices are the lowest that the extent of consumption is the greatest. This therefore, cannot be the meaning hitherto attached to the term, demand, when it is said to raise prices."³⁴ Malthus accused Ricardo of giving a "new meaning to the term demand," and added:

giving a greater price for a commodity absolutely and necessarily implies a greater intensity of demand; and that the real question is what are the causes which either call forth or render unnecessary the expression of this intensity of demand.³⁵

Malthus defines the "intensity of demand" as the "will and power to make a greater sacrifice in order to obtain the object wanted,"³⁶ and "without the increased intensity of demand ... the commodity would cease to be produced; that is failure of the supply would be contingent upon the failure of power or will to make a greater sacrifice for the object sought."³⁷ The above given passage involves confusion of demand with its slope. One can venture to guess that when Malthus wrote about the extent, he meant the slope of the demand curve and movement on the same demand curve. Intensity, on the other hand, implies the demand schedule or demand curve and the shift of the curve. Confusion arises when four concepts: demand curve, shifts, movements and slope are expressed in terms of two concepts, mainly "intensity" and "extent." Therefore "giving a greater price for a commodity" not only involves shift or demand schedule, it also involves the slope.

"Greater sacrifice" can be interpreted as the demand curve having a steep slope (inelastic demand) so it involves not only the intensity (demand schedule) but also the extent.

An added difficulty is the confusion between the "quantity demanded" and "demand." The statement, "it is almost always when prices are the lowest that the extent of consumption is the greatest" means that when prices go down, quantity demanded goes up. Intensity is the increase in demand. Malthus however, is not unclear when he says increased intensity is due to increased "wants and tastes" for a given commodity. In other words, increase in wants and tastes shifts the demand curve to the right. This makes the price go up and if the same quantity is demanded this involves greater sacrifice on the part of consumers and requires greater will.

Malthus, in his correspondence, always accused Ricardo of ignoring "wills" of consumers and emphasized the crucial role of "will and power to purchase" in the determination of prices:

I can by no means agree with you in thinking that if the capital of this country were diminished one half "demand" as compared with production would diminish." Precisely the reverse would I think take place. You do not certainly take sufficiently into your consideration the natural desires of man, which are after all the foundation of all demand. When corn is scarce there is a greater demand for corn than for labour, for produce, than for population.³⁸

Ricardo's answer to Malthus in another letter reveals their respective understanding of demand:

I sometimes suspect that we do not attach the same meaning to the word demand. If corn rises in price, you perhaps attribute it to a greater demand, - I should call it a greater competition. The demand cannot, I think, be said to increase if quantity consumed be diminished, altho much more money may be required to purchase the smaller than the larger quantity. If it were to be asked what the demand was for Port wine in England in the years 1813 and 1814, and it were to be answered that in the first year she had imported 5,000 pipes and in the next 4,500 should we not all agree that the demand was greater in 1813, yet it might be true that double the quantity of money was paid for the 4,500 pipes.³⁹

Again, there is confusion between the shift in demand schedule as a result of increased "desires" leading to increase in prices and the increased prices resulting in a decline in quantity demanded. There is confusion on the part of Ricardo as to whether prices are the

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cause or the consequence of demand. Malthus insists that "will" to purchase is an essential element of demand in both the micro and macro senses. Will is a function of scarcity whereas power is directly related to incomes of the consumer, which is ultimately determined by the size of the total output:

Effectual demand consists of two elements, the power and the will to purchase. The power to purchase may perhaps be represented correctly by the produce of the country, whether small or great; but the will to purchase will always be the greatest, the smaller the produce compared with the population, and the more scantily the wants of the society are supplied ... You have never, I think, taken sufficiently into consideration, the wants and tastes of mankind. It is not merely the proportion of commodities to each other but their proportion to wants and tastes of mankind that determines prices.⁴⁰

Desires, wants, tastes of mankind, according to Ricardo, cannot be determining factors. Ricardo thinks "the will is very seldom wanting where the power exists" and "in short [Ricardo considers] the wants and tastes of mankind as unlimited. We all wish to add to our enjoyments, - accumulation to our power, and they equally promote demand."⁴¹ In Ricardo's thinking, determining factors have to be concrete, physical, and tangible. Intensity of wills, desires, tastes, moral usefulness and other such concepts are beyond the scope of political economy. He has a materialistic view:

It may be better for the health of my friend, that I should restrict him to a pint of wine a day, but my gift is most valuable if I give him a bottle a day.⁴²

According to Malthus, Ricardo had not believed in the determination of prices through the interaction of demand and supply, because of the lack of an essential element of demand, the intensity of wants and tastes as a function of scarcity.

d) Say's Law

Malthus believed that Ricardo's conception of demand (in terms of "extent"), and his disregard of the "wants and tastes of mankind" led him to subscribe to James Mill's version ⁴³ of the Law of Markets, which later came to be known as Say's Law. Obviously, a discussion of the Law of Markets would be incomplete without any reference

to distributional shares of landlords, capitalists and laborers because power to purchase (income) is the primary determinant of demand. But for now, we shall say only that Ricardo considered, according to Malthus, only the extent of demand and not the intensity and he ignored the wants and tastes of mankind. In the cases where the general rate of profit and the growth of raw materials are not influenced by wants and tastes of mankind, "demand and supply should appear to be precisely equal" and "the power to purchase necessarily involves a proportionate will to purchase."⁴⁴ As quoted earlier, Malthus believed that it is not merely the proportion of commodities to each other, but their proportion to the wants and tastes of mankind that determines prices. Prices of imported goods may be higher and the purchasing power of consumers may be the same, but still demand may go up (shift in demand curve) because there is a greater will. Malthus simply believes that "If we were to grow next year half as much corn again as usual, a great part of it would be wasted, and the same would be true if all commodities of all kinds were increased one half."⁴⁵ It is because, according to Malthus, Ricardo underrated the importance of wants and tastes (or assumed them to be insatiable, limitless) that he precluded the possibility of a permanent excess supply of goods.

C. Distribution Theory

According to Malthus, Ricardo's theories of distribution were based upon his value theory and, following his method, they were built around only the strongest cases. Ricardo thought that the cause of rent was recourse to inferior land; rent was a creation of value but not a creation of wealth. In contrast to Smith, Ricardo did not consider rent as a component part of price. Rent not being an addition to wealth but merely a transfer of value was advantageous only to landlords, and "injurious" to consumers. Ricardo's wage theory was based on the cost of producing the necessities for sustaining labor: it was a subsistence theory. His conception of natural wages was quite "unnatural" and had limited

application, but it was used in the determination of profits. Assuming that the value of money and the price of commodities remained constant, Ricardo concluded that profits varied inversely to wages. Profits were regulated by wages and wages were regulated by the last quantity of land taken into cultivation. Ricardo did not use the principle of demand and supply in his determination of rents, wages, and profits.

Malthus believed that Ricardo's theory of distribution of income was a natural outcome of his general methodology, in that his system was built around strong cases and tried to establish dominant, regulating principles of the division of income between the three classes of society: landlords, capitalists and workers. It was, therefore, an outcome of his theory of value. Since Ricardo did not deal with the determination of market prices, his distribution theory was not connected with what has come to be known as a price theory in the modern sense, wherein prices of commodities and prices of means of production are determined in an integrated system of demand and supply.

According to Malthus' interpretation of Ricardo's value theory, the real exchange rate of commodities is determined on the least productive land, where rent, being

1. Theory of Rent

Malthus' interpretation and criticism of Ricardo's theory of rent is somewhat puzzling. Ricardo admitted that in formulating his theory of rent he owed much to Malthus and generously acknowledged these contributions. He thought that his theory of rent was completely in line with Malthus' theory of rent as expounded in the "Essay on Rent."⁴⁶ Yet in his Principles, Malthus criticized Ricardo's theory of rent at length and sometimes by exaggerating their differences, gave the impression that he was trying to distance himself from Ricardo's theory of rent and its implications. In doing so, Malthus sometimes contradicted his own early theory of rent.⁴⁷

According to Malthus' interpretation, Ricardo believed that rent is caused by recourse to inferior soil. In the natural progression of societies, as population increases, demand for food and the necessities of life increases as well, making it necessary to take lands of inferior qualities, with respect to productivity, into cultivation and thus rent is the

result of using inferior lands. So, for Ricardo, the least productive land taken into cultivation yielded no rent: rent was caused by differences in productive powers of lands:

It is too large an inference from the theory of rent to conclude with Mr. Ricardo, that "it is only because land is of different qualities with respect to its productive powers, and because in the progress of population, land of an inferior quality, or less advantageously situated, is called into cultivation, that rent is ever paid for the use of it."⁴⁸

Malthus, as far as the causes of rent are concerned, accuses Ricardo of confining rent to a single cause (i.e. recourse to inferior land) and not giving sufficient consideration to other causes. His objection to Ricardo on this point is not very radical. He does not say that Ricardo has chosen a wrong cause. What Malthus really objected to was the synthesis of theories of rent and population, which were very similar to his own, into a general theory of value and distribution and the changing role and status of rent in the accumulation of wealth. This yielded results which were diametrically opposed to Malthus' results and carried quite opposite political and ideological overtones.

According to Malthus' interpretation of Ricardo's value theory, the real exchangeable value of commodities is determined on the least productive land, where rent, being zero, does not enter as a component part of price:

It may be said, perhaps, ... the permanent price of a great mass of commodities will be determined by the cost of their production. This is true, if we include all the component parts of price stated by Adam Smith, though not if we consider only those stated by Mr. Ricardo.⁴⁹

Malthus reprimands Ricardo for agreeing with M. de Sismondi⁵⁰ that rent was the sole produce of labor, which had only a nominal value, and resulted from augmenting the price which the seller obtained by taking advantage of his fertile land. He also criticized Ricardo for agreeing with Buchanan⁵¹ that rent was the effect of high price, not representing any addition to national wealth, but merely being a transfer of value from the consumer to the landlords only; thus being "proportionably injurious" to the consumers:

It is extraordinary that Mr. Ricardo (p.400) should have sanctioned the statements of M. Sismondi and Mr. Buchanan. Strictly, according to his own theory, the price of corn is always a natural or necessary price. In what sense then can he agree with these writers in saying, that it is like

that of a common monopoly, or advantageous only to the landlords, and proportionably injurious to the consumers?⁵²

Malthus comprehends Ricardo's message as follows: in the progress of societies wherein capital accumulate and population increases, the demand for food and manufactured goods will also increase and utilization of less favorable land becomes necessary. Increased difficulty of obtaining food and manufactured goods leads to increased cost, because according to Ricardo's "unusual" theory of value, cost is regulated by the quantity of labor expanded (obviously more labor is needed to produce corn on less fertile land). Increased production price is the consequence, leading to the rise of rent on more fertile land under cultivation. Thus, the rent obtained by the owners of more fertile land represented a clear gain for them since they will be getting a) more corn for rent and b) all other goods for a less quantity of corn. Therefore, wealth is transferred from the consumers to the landlords and is injurious to the consumers. Furthermore, as agricultural improvements take place, the price of corn tends to be lowered because less labor is needed, and thus rents are also lowered: improvements are injurious to landlords and beneficial to all other classes. Finally, the same result appears in the case of importing cheaper corn from Continental Europe.

According to Malthus, Ricardo's mistakes stemmed from two sources: 1) his method of taking only the strong cases and showing them as the "sole" regulators, 2) his "unusual" and "erroneous" conception of value. Malthus, for example, complains that Ricardo took recourse to inferior land as being the only cause of rent (Malthus identified at least three causes⁵³) which leads to the increase in price. This conclusion is primarily due to the fact that Ricardo's theory of value is cast in terms of labor-embodied. Second, Ricardo's conclusion depends upon his method of assuming changes in the income shares of landlord, capitalist and laborer, and the prices paid to these means always being in proportion to total change. In terms of Ricardo's perception of proportions, Malthus claimed that when output is doubled and all payments to means of production are also doubled as a result of improvements in agriculture, they will bear the same proportion to

one another as before. But, if profits doubled, and rent went up only three fourths and wages only increased by one half, then, according to Ricardo, rent and wages have fallen while profits have risen. Malthus quotes Ricardo:

if we had an invariable standard by which to measure the value of this produce, we should find that [in the foregoing example] a less value had fallen to the class of labourers and landlords, and a greater to the class of capitalists than had been given before.⁵⁴

Malthus immediately adds:

If the application of Mr. Ricardo's invariable standard of value naturally leads to the use of such language, the sooner the standard is got [ten] rid of, the better, as in an inquiry into the nature and causes of the wealth of nations, it must necessarily occasion perpetual confusion and error. For what does it require us to say? We must say that the rents of the landlord have fallen and his interests have suffered, when he obtains as rent above three-fourths more raw produce than before.⁵⁵

Malthus concludes that "into this unusual language, Mr. Ricardo had been betrayed by the fundamental error of confounding cost and value and the further error of considering raw produce in the same light as manufacturers"⁵⁶

2. Theory of Wages

Malthus does not have very much to say about Ricardo's theory of wages except that it is governed by the same principle: cost of production. According to Malthus' interpretation of Ricardo, the cost of production affected the price of necessities and the price of necessities affected the cost of producing labor which in turn determined the supply of labor. Therefore, wages are determined by the "cost in labour of the labourer's wages" or alternatively "by the labour which has been expended in procuring the earnings of the labourer."⁵⁷ Malthus thought that Ricardo's criterion of measurement was not useful since it told nothing about the condition of the laborer.

Malthus found Ricardo's definition of the natural price of labor, "that price which is necessary to enable the labourers one with another to subsist and to perpetuate their race, without either increase or diminution," extremely unrealistic and "unnatural" because he

believed "such price could not generally occur for hundreds of years."⁵⁸ Even under moderately good governments such a price which would maintain a stationary population cannot generally occur. Malthus then claimed that such an unrealistic concept of wages should not have been used as a benchmark to measure temporary deviations of market price of labor from the natural price of labor. If this function should not be ascribed to natural wages, the only other function left to Ricardo, according to Malthus, was to determine the rate of profit. Finally, Malthus claims that wages are determined by the same law which is applicable to all prices, Demand and Supply, and only then is it possible to bring logical and useful answers to three essential questions: condition of the laborers, the encouragement to population and the value of money.

3. Theory of Profits:

Malthus believed that prior to the publication of the Principles Ricardo had an agricultural theory of profits. In his Principles of Political Economy, Malthus did not comment on Ricardo's early theory of profits. But judging from the intense correspondence carried out between the two in 1814-15 (now available in Sraffa's edition of the Works and Correspondence of David Ricardo), it is possible to construct Malthus' interpretation of Ricardo's early theory of profits.

The occasion for the controversy between Malthus and Ricardo which led to the letters of 1814-15 was the war with France. Both Malthus and Ricardo observed that since the war had started, England experienced an increase in the rate of capital accumulation. They were also surprised by the fact that even though capital accumulated at a higher rate, the rate of interest in England did not fall. They were both aware that this was contrary to Smith's doctrine that higher rate of capital accumulation lowered the rate of interest. These observations prompted the exchange of a series of letters between them. Ricardo defended the idea that the improvements in the techniques of cultivation in England kept the rates of profit (interest) high in agriculture, and led to higher rates of profit in other sectors.

Malthus, it seems had a different perspective. He associated the high rate of interest with demand for manufactures as being high. This was the beginning of their correspondence concerning the difficult problems of accumulation of capital, rate of profit, and the impact of technical improvements on profits and wages.

Malthus wrote to Ricardo in October 9, 1814:

You seem to think that the state of production from the land, compared with the means necessary to make it produce, is almost the sole cause which regulates the profits of stock, and the means of advantageously employing capital... It is not the quantity of produce compared with the expence of production that determines profits, (which I think is your position) but the exchangeable value or money price of that produce, compared with the money expence of production.⁵⁹

This passage clearly shows that Malthus believed Ricardo prescribed to the idea of the determining role of agricultural profits, and that the agricultural profits themselves were determined by the ratio of input to output in the agriculture. In the same letter, Malthus criticized James Mill's version of the Law of Markets, knowing that Ricardo was a believer in the law: "it is in considering merely of the proportions of commodities to one another, and not of their proportions to the wants and tastes of mankind that the error of Mr. Mill, in my opinion, consists."⁶⁰ Of course Malthus was not aware that earlier in the same year (1814), Ricardo had written to Trower stating his theory of agricultural profit determining the profits in other sectors:

...[I]t is the profits of the farmer which regulate the profits of all other trades, -- and as the profits of the farmer must necessarily decrease with every augmentation of Capital employed on the land, provided no improvements be at the same time made in husbandry, all other profits must diminish and therefore the rate of interest must fall. To this proposition Malthus does not agree.⁶¹

Ricardo finally published his famous Essay and reiterated his position on the determining role of agricultural profits. After the publication of the Essay, having examined the arguments propounded therein, Malthus wrote to Ricardo in March 12, 1814 that he had "thoughts also of saying something of [Ricardo's Essay]," and asked Ricardo: "do you

wish it or not? I will do just as you like." Two days later, on March 14, Malthus also wrote to Horner criticizing Ricardo's Essay, especially his famous Table which was constructed in terms of corn acting both as the input and the output:

The fault of Mr. Ricardo's table which is curious, is that the advances of the farmer instead of being calculated in corn, should be calculated either in the actual materials of which the capital consists, or in money which is the best representative of a variety of commodities.⁶²

Ricardo's response to Malthus' question was very professional and perhaps a bit cavalier:

With regard to any remarks on my opinions, you must be governed by your own discretion. If those opinions are wrong I should like to see them refuted ... I ask for no mercy ... There is nothing you could say of them which would hurt me, if what you said express no contempt, and that I know you do not feel for me. Act therefore towards me as if I were a perfect stranger, and notice me or not as you think best.⁶³

Malthus, in response, after reassuring Ricardo of his "respect and friendship" posed a question which prompted the exchange of 19 letters over the next three months. In summary, the problem Malthus posed in March 15, 1814 is as follows:

According to Ricardo's own theories, as the cultivation is extended to inferior lands the price of corn increases relative to the price of manufactured goods, making it cheaper to employ more capital in agricultural production. Surplus from the land increases as a result of high capitalization and profits in agriculture rise leading to, in accordance with Ricardo's contention, an increase in the profits elsewhere, and a decrease in real wages. This is contrary to the conclusions of the Essay, because in the Essay, Ricardo did not take into consideration the impact of the price effect produced by a rise in the cost of wage goods. It is known that after intense correspondence about the matter, the controversy died but Ricardo did not mention the principle of the determining role of agricultural profits in his Principles. As will be seen below, this issue is made a subject of controversy by S. Hollander's interpretation of Ricardo's early theory of profits. Hollander claimed, contrary to Sraffa's interpretations, that Ricardo never adhered to a corn theory of profit: his theory of profit before the Essay, in the Essay and after the Essay is the same, and is based upon

his theory of value. According to Malthus, Ricardo's theory of profit in the Principles is based on his theory of value and all the criticism against this theory can also be shown to be valid for his theory of profit. profits by rising or falling. Furthermore, prices themselves

are determined Ricardo, according to Malthus, not being in possession of a price theory, assumed that profits were determined by wages alone. "According to Mr. Ricardo," says Malthus, "profits are regulated by wages and wages by the quality of the last land taken into cultivation."⁶⁴ Ricardo's theory of profits depended on two assumptions: first, the value of money remained constant, and second, prices of commodities remained constant. Therefore, according to variations in the price of labor, profits would rise or fall inversely. Malthus contended that if it can be proven that prices of commodities do not in fact remain constant when wages change, as Ricardo assumed, his theory of profit "falls to the ground."⁶⁵ Malthus thought that one had only to observe the real life experiences without going into discussions of logic to reach the conclusion that in the natural course of events when wages change (money price of labor) price of commodities are affected variously: some rise, some fall, and some remain the same. Therefore, nothing can be inferred from the changes in money wages; money wages can not regulate the profit rates. Malthus thinks Ricardo's mistake, again, stems from his ignoring demand altogether by assuming that prices of commodities remain constant.⁶⁶ Reminiscent of Marshall's famous scissors metaphor, Malthus believes: supply "is only the half of the question," demand too should be allowed. It is not the wages which determine the rate of profit, but it is always the supply and demand for commodities:

In contemplating the altered relation between labour and the produce obtained by it which occasions a fall of profits, we only take a view of half the question if we advert exclusively to a rise in wages of labour without referring to a fall in the prices of commodities. Their effects on profits may be precisely the same; but the latter case, where there is no question respecting the state of the land, shows at once how much profits depends upon the prices of commodities, and upon the cause which determines these prices, namely the supply compared with the demand.⁶⁷

So, Ricardo's theory of profit, so far as he makes it a function of wages is not incorrect, but rather, incomplete because the demand side is not allowed. Prices of commodities, according to Malthus, regulate profits by rising or falling. Furthermore, prices themselves are determined by supply and demand and not, as Ricardo claimed, by the amount of labor expanded on the production of commodities. Malthus believed that Ricardo's ignoring of demand as a regulating factor is totally unjustifiable even on the grounds of his conception of difficulty of production of subsistence (i.e. cost of production of labor) since it too is based upon the law of demand and supply.

Malthus contends that the accumulation of capital and the increasing difficulty in procuring subsistence would lead to lower profits. There may be the same quantity of labor being employed, but due to the increase in capital, the prices of commodities would fall -- thereby lowering the profit rate. In this case, the price of labor and the value of money remains unaffected, yet profits decline. Thus, Malthus concludes that wages are not the sole regulator of profit. Profits can only be regulated by the principle of competition or demand and supply, which determines the degree to which the prices change and this would regulate the profit rate.

10. Malthus, *Observations on the Effects of the Corn Laws*, 1811. On this observation see Warren J. Samuels and John P. Henderson, *Introduction to Thomas Robert Malthus, Principles of Political Economy*, 1820. Handelman, p.7.

11. Ricardo, *Works*, Vol. II, p.5.

12. The very same criticism comes from Schumpeter, see Chapter Five below. He calls this "The Ricardian Vice."

13. Ricardo, *Works*, Vol. II, p.7.

13a. Malthus, *Principles of Political Economy*, Second Edition, N.Y. Augustus M. Kelly Inc., 1951 p.83n. Italics in original. The Second Edition of Malthus' *Principles* appeared in 1836. This edition was published posthumously by Bishop Otter, a friend of Malthus. As admitted by the Editor in the "Advertisement to Second Edition" the text "has in some places been slightly varied, where a regard to perfect clearness or precision seemed to require it, some passages have been omitted" (p.xi). Changes in the Second Edition, especially Chapter II ("Measure of Value"), are rather extensive and Malthus' own words to be noted. Because the omitted passages and changes are not clearly specified, in this study the priority is given to the original Edition and the Second edition is used only sparingly.

13b. Ricardo, *Works*, Vol. IX, p.369.

Notes

1. Ricardo, The Works and Correspondence of David Ricardo, Edited by Piero Sraffa, Cambridge University Press, 1951-55, Vol. IX, p.382: "... after much discussion we each retain our own opinions. These discussions however never influence our friendship; I should not like you more than I do if you agreed in opinion with me." (Ricardo's last letter to Malthus, dated 31 August 1823).

2. This is the First Edition of Malthus' Principles of Political Economy; some references will be given to the Second Edition of the Principles (1836) as well.

3. Ricardo, Works, Vol. I, Ch.XXXII is devoted to "Mr. Malthus' Opinions on Rent" and it represents a reflection of Malthus' interpretation of Ricardo.

4. Ricardo, Works, Vol. VI, VII, VIII, IX.

5. Ibid., Vol. IX, p.112.

6. Ibid., Vol. II, p.12.

7. Ibid., Vol. I, p.398: "Of Mr. Malthus' Essay on Population, I am happy in the opportunity here afforded me of expressing my admiration ... Mr. Malthus, too, has satisfactorily explained the principles of rent ..." etc.

8. Ibid., Vol. I, p.12.

9. Ibid., Vol. II, p.5.

10. Malthus, Observations on the Effects of the Corn Laws, 1811. On this observation see Warren J. Samuels and John P. Henderson, Introduction to Thomas Robert Malthus, Principles of Political Economy, 1820, Handelsblatt. p.7.

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13b. Ricardo, Works, Vol. IX, p.369.

14. Malthus, Principles, Second Edition, p.93n: "Mr. Ricardo, at the conclusion of the sixth section of his first chapter has the following passage: 'It is necessary for me to remark that I have not said, because one commodity has so much labour employed upon it as will cost £ 2000, and another, so much as will cost £ 2,000, that therefore one would be of the value of £ 1,000, and the other of the £ 2,000; but I have said that their value will be to each other as 2 to 1, and that in these proportions they will be exchanged. It is of no importance to the truth of this doctrine, whether one of these commodities sells for £ 1,100, and the other for £ 2,200, or one for £ 1,500 and the other for £ 3,000; into that question I do not at present inquire.' " Italics added.

15. Ibid., p.93.

16. Ricardo, Works, Vol. II, p.58.

17. Ibid., Vol. I, Sections IV and V.

18. James Mill, Elements of Political Economy, London, Baldwin, 1821, Ch. 3 p.76.

19. Ibid., Vol. IX, p.127. Similarly, in spite of Ricardo's modifications, McCulloch kept on defending and teaching the labor-embodied theory of value in its purest form. McCulloch says: "The real inquiry is to ascertain what are the circumstances which determine the exchangeable value of commodities at any given period - and these I think are all clearly reducible to one - the comparative quantities of labour bestowed on their production. If we establish this proposition we shall make the subject as plain as it ever can be made, and will at once put to rest the objections of Malthus, Torrens and so forth." (Ibid., Vol. IX, p.344).

20. Ibid., Vol. II, p.59.

21. Ibid., Vol. II, pp. 55-89.

22. Ibid., Vol. II, p.89.

23. Ibid., Vol. II, pp.88-89. Malthus states a third reason as: "the value of commodities, in exchange for labour can alone express the degree in which they are suited to the wants and tastes of society, and the degree of abundance in which they are supplied, compared with the desires and numbers of those who are willing to consume them."

24. Ibid., Vol. II, pp.90-91, Italics added.

25. Ibid., Vol. II, p.94.

26. Ibid., Vol. II, p.94.

27. Malthus, Principles, Second Edition, p.135.

28. Ibid., p.54.

29. Ricardo, Works, Vol. II, pp.27-28.

30. Ibid., p.37.

31. Ibid., p.45.
32. Ibid., p.67.
33. See Footnote 14 above.
34. Ricardo, Works, Vol. II, p.42.
35. Ibid., p.38, Italics added.
36. Ibid., p.43.
37. Ibid., p.40.
38. Ibid., Vol. VI, p.123 - Italics added.
39. Ibid., Vol. VI, p.129.
40. Ibid., Vol. VI, pp.131-132, last two italics added. See also VI, p.141: "... you underrate wants and tastes of mankind in effecting prices."
41. Ibid., Vol. VI, pp.133-134.
42. Ibid., Vol. II, p.210.
43. James Mill, Commerce Defended. An answer to the Arguments by which Mr. Spence, Mr. Cobbett, and Others, have Attempted to Prove that Commerce is Not a Source of National Wealth, London, Baldwin, 1808.
44. Ricardo, Works, VI, pp.131-132.
45. Ibid., p.132.
46. Malthus, Inquiry into the Nature and Progress of Rent, 1815. Ricardo approves Malthus' theory of rent as put forth in this essay. See, for example, Ricardo, Works Vol. I, pp.74-75, Vol. II, pp.116-119, etc.
47. As an example of this point refer to Malthus' "Essay on Rent," p.57, where he observed that if landlords forego their share of rent, there will be no reduction in the price of corn. This is consistent with the idea that rent was a creation of value but not a creation of wealth (that corn is high in price not because rent is high but rent is high because corn is high in price). Malthus, later in the Principles, argues that rent is price determined. Ricardo's conclusion that, if landlords giving up their rent would not make corn cheaper, rent is a transfer of wealth from consumer to landlord is not contradictory to Malthus' earlier theory of rent.
48. Ricardo, Works, Vol. II, p.171.
49. Ibid., p.43.
50. J.C.L. Simonde, De La Richesse Commerciale, ou Principes d'Economie politique, appliques a la legislation du commerce, Geneve, Paschoud, 1803.

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51. Malthus quoted from Ricardo, Works, Vol. I, p.77 who quoted from Buchanan's Edition of the Wealth of Nations, Vol. II, p.55.

52. Ricardo, Works, Vol. II, p.117n. *Italic in original.*

53. Malthus gave three causes for the existence of rent:

- 1) "That quality of earth, by which it can be made to yield a greater portion of the necessities of life than is required for the maintenance of the persons employed on land."
- 2) "That quality peculiar to the necessities of life being able, when properly distributed, to create their own demand, or to raise up a number of demanders in proportion to quantity of necessities produced."
- 3) "The comparative scarcity of fertile land, either natural or artificial."
(Ricardo, Works, Vol. II, p.107).

So, Malthus' first cause simply is that land must be productive, capable of yielding surplus. Second, "Supply of food creating its own demand," seems to say that the increase in supply of food is responsible for the increase in population, and by providing food first, encouragement is given to marriage. Ricardo, on this point, was inclined to think the other way around -- namely, that the general progress of population is affected by the increase of capital, the consequent increase in demand for labor, and the rise of wages; for Ricardo production of food was not the cause but the effect of that demand. (Ricardo, Works, I, pp.402-403.) It is also true that rents could appear in some societies even if the demand for corn was constant. Malthus' third cause is a sufficient but not a necessary cause for rent.

54. Ricardo, Works, Vol. II, p.190.

55. *Ibid.*, Vol. II, p.191. It should be mentioned here that in the given example, Malthus misses the point completely. It is not the absolute and relative increases that should be objected. As the quantity of corn produced by the given quantity of labor were to double, its price would fall to one half, and consequently, money rents of landlords would fall unless they had double the quantity. The same is true for wages.

56. *Ibid.*, p.194.

57. *Ibid.*, p.249.

58. *Ibid.*, pp.227-228.

59. Ricardo, Works, VI, pp. 139-141.

60. *Ibid.*, p.141.

61. *Ibid.*, p.104.

62. *Ibid.*, p.188.

63. *Ibid.*, pp.188-189.

64. Ricardo, Works, II, pp.285.

65. *Ibid.*, p.286.

66. "Mr. Ricardo never contemplates the fall of prices as occasioning a fall of profits, although practically in many cases ... a fall of profit must be produced this way." (Ibid., p.287.)

67. Ibid., p.295.

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CHAPTER THREE: MARX ON RICARDO

There is more or less a consensus among economists about the influence of Ricardo on Marx. Schumpeter speaks of Ricardo being "the only economist whom Marx treated as a master"¹ and Marx being "Ricardo's only great follower."² Even though the influence of Ricardo on Marx has been generally acknowledged,³ the degree of this influence has been variously estimated. Whether or not Marx was "a minor Post-Ricardian"⁴ or "a true representative"⁵ of Ricardian tradition is beside the point. Apart from the controversial nature of the subject matter of Ricardo's economics, some of the controversies concerning him may be attributed to his influence on Marx. In other words, if Marx did not exist, would Ricardo be as variously interpreted? More specifically, if there was no exploitation theory (with all the well-known class connotations and policy recommendations attached to it) based on the labor-embodied theory of value (which is attributed to Ricardo by some interpreters) would Ricardo be as variously interpreted? This too is not an immediate concern of our investigation. The point is, however, that there is an important link between Ricardo and Marx. Marx's interpretation of Ricardo is our subject.

The principal source for Marx's views on Ricardo is the Theories of Surplus Value, originally designed to be the fourth volume of Capital. Totalling about 1400 pages, this work was edited by Karl Kautsky, and published as a separate book under the title: Theorien über den Mehrwert. For the purpose of Ricardo, Part Two of these manuscripts is relevant. Another source is a section of Grundrisse, later published in English under the title of: A Contribution to the Critique of Political Economy. Capital, Vol I and II also contain some of Marx's views on Ricardo. Marx's references to Ricardo's Principles in the Theories of Surplus Value are to the Third Edition only; therefore it is plausible that Marx studied only the Third Edition of the Principles.⁶

Just as Ricardo adapted the conceptual layout of Smith's Wealth of Nations down to the order in which the topics are treated,⁷ Marx began with a critique of Ricardo. From

the content and the structure of the Theories of Surplus Value it is obvious that Marx was actually working out his theories of surplus value and profit with his method of criticizing Ricardo. "Criticism of Ricardo was his method in his purely theoretical work."⁸ For this reason it is sometimes impossible to separate Marx's understanding of Ricardo and his criticism of Ricardo. Recognizing this as well as its possible ultimate uselessness, priority will be given to Marx's understanding of Ricardo where it is feasible.

A. General Character and the Significance of Ricardo's Works.

According to Marx, the importance of Ricardo lies in his discovery of the economic basis for class struggles. He was the first economist who considered social relations of production and income distribution with all the relevant social and institutional variables taken into consideration. His everlasting contribution was the discovery of the determination of value by labor time and an investigation of economic categories based on this foundation.

In spite of occasional harsh criticisms, in general Marx had a high respect for Ricardo. He regarded him as "the great representative of the classical political economy" and the period "from 1820 to 1830 was notable in England for the lively scientific activity which took place in the field of political economy. It was the period of both the vulgarizing and extending of Ricardo's theory, and of the contest of that theory with the old school."⁹ Splendid tournaments were held."¹⁰ He spoke of "the great historical significance of Ricardo for the science" and his services to economic science which is "closely linked to the fact that Ricardo discovers and proclaims the economic contradiction between classes -- as shown by the intrinsic relations -- and hence the historical struggle and process of development is grasped at its roots and disclosed in economic science."¹¹

The importance of Ricardo, according to Marx, can only be understood by studying the method of economic investigation historically, starting from Smith and continuing

through his "successors." In Smith he saw two types of approach interweaving, but continuously contradicting each other. One approach described, classified and expounded purely exchange or market theories from the standpoint of competition. It assumed certain economic categories as given or natural, even universal. The other approach tried to penetrate the "inner connections" to uncover hidden structures of the system. Starting from a scientific foundation (labor-embodied theory of value) it emphasized social relations of production and income distribution with all relevant social and institutional variables taken into account. He calls this second approach "attempts to penetrate to the inner physiology of the bourgeois society."¹² The two approaches present themselves in Smith, then proceed independently of each other which lead to complete contradiction: harmony of interests on one hand, power struggles and class antagonism on the other .

Smith's successors, according to Marx, continued in the same fashion, expanding on the economics of exchange, taking all economic categories, income distribution, existing property relations, production processes as given. They did not notice or pay much attention to the other side of Smith which sought to explain the "hidden structures and inner connections" of the market system. Finally, wrote Marx:

Ricardo comes on the stage and calls to science: Halt! -- the foundation, the starting point for the physiology of the bourgeois system -- for the understanding of its internal organic coherence and life process -- is the determination of value by labour time. Ricardo starts with this and compels science to leave its old beaten track and render an account of how far the rest of the categories it has developed and described -- the relations of production and commerce -- correspond to or conflict with this foundation...¹³

The great historical significance of Ricardo for economics thus lies in the fact that he starts with the determination of value of commodities by labor time and investigates economic categories based on this foundation.

In Marx's view, Ricardo's theory is contained in the first six chapters of the Principles. The rest of the book consists of applications, extensions, and supplements. To

Marx, the rest of the book has no claim to the main structure established in the first six chapters. From these six chapters Marx reduces Ricardo's work down to the first two chapters because the analysis in Chapter III, "On the Rent of Mines" is a supplement to Chapter II, and Chapter IV, "On Natural and Market Price," Chapter V, "On Wages" and Chapter VI, "On Profits" are already begun in the first two chapters: "On Value" and "On Rent." Therefore, "the whole of Ricardo's work is thus contained in its first 2 chapters... They contain his whole critique of previous political economy, making a categorical break with the contradiction between the esoteric and the exoteric mode of approach which runs through Adam Smith's writings, and through his critique he achieves some altogether new and surprising results." Later chapters are "boring and difficult to concentrate on" and "theoretical satisfaction given by these two chapters, because of their originality, unity of basic conception, simplicity, concentration, depth, novelty and comprehensive conciseness is of necessity lost as the book proceeds."¹⁴

Marx considers Ricardo's theory of value representing "a categorical break" with Smith's "component parts-of-the-price" theory in which wages profits and rents are added up in order to arrive at the exchange value of commodities. By "correcting inconsistencies," Marx means that Smith's theory of value involves a logical circularity in that the three components of prices -- wages, profits and rents -- were themselves either prices or derived from prices. So, a theory trying to explain prices on the basis of other prices cannot avoid falling into a logical circularity -- an inconsistency. Smith's confining his earlier labor theory to "early and rude states" of development stems from his confusion about the labor-embodied and labor-commanded. Marx considers Ricardo's approach altogether new, yielding "surprising results." Marx is probably referring to what Ricardo calls a "discovery of curious effect" in which he shows that increases in wage rates cause decrease in the price of goods produced with a higher than average fixed capital (as a result of decreasing profits). As is known, Ricardo announced his discovery by triumphantly putting his theory in opposition to Smith's.

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It is therefore correct to assume that Marx's interpretation of Ricardo will have to concentrate on this theory of value and its particular forms: profit, rent, wages. Let us see all of these points in greater detail.

B. The Theory of Value

1. Ricardo rejected Smith's theory of value:

Marx claims that Ricardo opposed and rejected Smith's theory of value on the grounds that it involved a logical circularity, a confusion between labor-embodied and labor-commanded as a measure of value and because Smith limited the applicability of labor theory of value only to the "early and rude states" of economic development. Marx explains the deficiency of the component parts of price theory of Smith as follows:

Adam Smith first shows that exchange value resolves itself into quantity of labour, and that after deducting the raw materials, etc., the value contained in exchange value falls into that part of labour which is paid to the labourer, and that part which is not paid to him -- which latter part is resolved into profit and rent, the profit perhaps in turn into profit and interest. Having shown this, he then cheerfully turns right around, instead of resolving exchange value into wages, profit and rent, he makes these on the contrary into the creators of exchange value.¹⁵

Smith does this by "compounding independently and separately determined values of wages, the profit and the rent." Thus, Marx concluded: "instead of having their source in value, they become the source of value."¹⁶

Marx claims that Ricardo contested this view on the grounds that Smith confused or rather identified exchange value with price of production (what Smith calls the "natural price.") Ricardo, however, in Marx's view, believed that exchange value is based on price of production but it is not identical with it. Smith, according to Marx, continuously wavered between his original and "profound" approach and his component parts of price approach. Not being able to solve the circularity involved, he closed the issue by simply confining his "profound" approach (cast in labor-embodied terms) to the "early and rude states" and thereby invalidated his earlier theory which ties wages to subsistence:

Adam Smith instinctively comes back to his more profound approach, and then in turn abandons it ... How does he propose to determine the value of the necessary means of subsistence - and therefore of the commodity in general? As to a part of it, by the natural price of labour. And how is this determined? By the value of the means of subsistence or of commodities in general. A wretched merry-go-round.¹⁷

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Marx claimed that Ricardo showed full awareness of the deficiencies of Smith's theory of value by stating explicitly that the value of mass produced commodities are determined by the labor time embodied in their production. He emphasized that this principle was correct not only for "the early and rude states" of capitalism but for all time. Ricardo, in order to reinforce his argument, announced results which sounded quite paradoxical at first. He showed that an increase in wages in industries in which comparatively large amounts of fixed capital were used caused the prices of the products produced by those industries to fall. This is because the increase in wages meant lower profits and thus lower prices. As is known, Ricardo was excited about this "discovery" which he called the "curious effect."

Marx clearly seems to be of the opinion that Ricardo did not retreat from his theory of value and move toward Smith's theory of component parts of price (which was interpreted to be the case by some later commentators.)¹⁸ In order to illustrate Ricardo's point, Marx reproduced Ricardo's numerical example¹⁹ and called his result a "nice point" because in Marx's view, Ricardo:

demonstrates that the raising of wages, which-contrary to the vulgar view, would produce only a fall in profit without affecting the values of commodities if the composition of the capitals was the same, would, if the organic composition of capitals is unequal, bring about only a fall in the prices of some commodities, instead of - as vulgar opinion believes - a rise in the price of all commodities. Here the fall in the prices of commodities is the result of a fall in the rate of profit or, which is the same thing, of a rise in wages.²⁰

2. Ricardo had a "Labor Theory of Relative Surplus Value."

Marx believed that Ricardo had a labor theory of relative surplus value but sometimes confused surplus value with profit. According to Marx, surplus value arises from the difference between the value of labor power as a commodity (when labor sells its ability to work, labor power having become a commodity) and the value of its product.

The value of its product exceeds the value of labor power (otherwise, obviously, there will be no sense in continuing the production of commodities) and the difference is surplus value. Marx claims that the rate of surplus value, which is the surplus labor divided by the necessary labor, can be increased either by lengthening the total working day or by reducing the necessary labor time proportionately to the total working time, perhaps as a result of increased labor productivity. The former he calls the "Absolute Surplus Value" whereby surplus labor time is increased absolutely compared to necessary labor time. In the latter, total working time is fixed, but due to increased productivity, the necessary labor time is reduced, producing the increase in the rate of surplus value $\left(\frac{\text{surplus labor}}{\text{necessary labor}} \right)$.

"Relative Surplus Value." Marx claims that Ricardo ignored absolute surplus value since he has taken the length of the working day as fixed. When the magnitude of the working day is assumed to be fixed, if in fact was not, some of Ricardo's propositions turn out to be incorrect. An example of this would be Ricardo's principle that wages and profits (keeping in mind Marx's accusation that Ricardo confuses profit with surplus value) are inversely related, since lengthening total working time would increase surplus value (profit) without necessarily changing the necessary labor time (wage) and in some cases increasing them both. It also locked Ricardo into only one way of explaining an increase or decrease in surplus value and that is growing or diminishing productivity of social labor which produces the means of subsistence. According to Marx, this deficiency of Ricardo is due to his confusion between labor and labor power, confusing value with prices of production and also ignoring the constant capital, or to put it differently, confusing surplus value with profit. Before going into these last alleged confusions, let us summarize Marx's interpretation of Ricardo's labor theory of relative surplus value²¹:

It was a labor theory of relative surplus value because the quantity of labor necessary for the production of a commodity and labor contained in it (embodied) determines the value of a commodity. Value is a definite, given amount divided between

the wage worker and the capitalist. One can only rise or fall in proportion to the rise or fall of the other (the principle of inverse profit-wage relationship). Labor is the creator of value and it has to live and maintain itself and receive the necessary wages, tending to a subsistence minimum. Income distribution (wages and profit shares) is prior to valuation. Wages do not rise or fall because profit (surplus value) rises or falls but the contrary. Therefore, profits are the remainders of wages. As the wages rise or fall, profit is determined (which Marx calls rate of surplus value) but leaves the value of commodities or its monetary expression is left unchanged because "the proportion in which a whole is divided between two participants makes the whole itself neither larger nor smaller."²² The preconceived notion of Adam Smith that a rise in wages increases the price of commodities is therefore false.²³ Since profit (rate of surplus value) is determined by relative wages, the question that remains is how the wages themselves are determined. Wages are determined by the prices of the necessary means of subsistence. The price of necessary means of subsistence depends on productivity of labor, and productivity of labor is greater when the land is more fertile. Fertility of land, together with other technical improvements, then, increases the productivity of labor, but technical advancement decreases the price of commodities consumed by labor. Therefore, wages increase or decrease inversely to the technical advancement. What follows is that the rate of surplus value (profit) falls or rises in direct proportion to the productivity of labor.

The inverse relationship between wages and profits, and profit being a residual after the wages, brings the question of real wages and therefore wage determination to the forefront of Ricardo's analysis. Marx makes sure that :

the value of wages has to be reckoned not on the basis of the quantity of necessities which the worker receives, but on the basis of the quantity of labour which these necessities cost.²⁴

Translation of this into Marx's language is that the wage rate would be the proportion of the working day which labor appropriates for itself; the proportionate share of the value of total product which the worker receives.

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According to Marx "one of the Ricardo's greatest merits" is that "he made an examination of relative wages and established them as a definite category." He achieved this by considering workers in their social relationship. Marx noted that "previously wages had always been looked upon as a simple element, and consequently the worker had been regarded as an animal."²⁵

The significance of Ricardo's consideration of relative wages as a definite category and taking prevailing habits and customs as factors in wage determination is crucial not only from the standpoint of workers themselves but also for other classes. According to Marx, the position of classes vis-a-vis each other depends upon their share of total product. This share should be understood in real terms, not in monetary terms:

The position of the classes in relation to each other depends to a greater extent on the proportion which the wage forms than on the absolute amount of the wage.²⁶

In spite of Ricardo's potentially confusing usage of different concepts of value,²⁷ such as real, absolute, relative, comparative, in exchange, etc., Marx interprets Ricardo's meaning of "value" essentially as the physical amount of labor required for the production of a commodity, applied not only immediately but also bestowed on the implements, tools and buildings with which such labor is assisted, and this physical amount measured in terms of a numeraire such as gold.²⁸

This interpretation is evident when Marx actually credits Ricardo with seeing the inner physiology, the hidden structure of capitalist production.²⁹ Ricardo made a correct start: origins of surplus value could be found, not in the sphere of circulation, but in the sphere of production, and Ricardo was surely right to go back to the production stage. That is why he calls him the "Economist of production par excellence."³⁰ Accordingly, Marx credits Ricardo with his full comprehension of Smith's distinction between "the natural price of commodities" and "market price" and contesting the view that the exchange values of commodities are formed by adding together wages, profit and rent. Marx also

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claims that Ricardo attempted to show that values being created in the sphere of production have to become transformed into prices in the sphere of exchange. But in the process, Marx believes, Ricardo fell into the same confusion Smith and had equated price of production (or cost) with natural price. For Smith, this was somehow excusable because his examination of natural price started from his "false" conception of value. But for Ricardo, the whole confusion is unjustifiable since he nowhere accepted the theory of Smith, on the contrary, he contested it as being inconsistent, yet he fell into the "trap" of equating prices of production with value.

3. Transmission from the Value Theory to the Distribution Theory:

Marx claimed that, Ricardo after expounding upon the laws of value correctly, failed to make the necessary transformation of values into prices. In Marx's view, Ricardo needed this transformation in order for his theory of profit to make sense, because profit "depends" on prices. Rather than completing such transformations and investigating the consistency or inconsistency of the existence of profit with the determination of value, Ricardo used Smith's conception of "natural prices" and assumed that market prices deviate from the "natural prices" in a predictable fashion. In using natural prices, Ricardo fell into the "trap" of equating them to values. In order to support his claim, Marx provided the following passage from Ricardo's Principles as evidence:

In making labour the foundation of the value of commodities, the comparative quantity of labour which is necessary to their production, the rule which determines the respective quantities of goods which shall be given in exchange for each other, we must not be supposed to deny the accidental and temporary deviations of the actual or market price of commodities from this, their primary or natural price. 31

He concluded in disappointment that in Ricardo, the " 'natural price' is equivalent to value and market price is nothing but deviation of the actual price from value."³² Because Ricardo was indeed troubled by the problem of finding an invariable measure of value in order to explain deviations of natural prices from labor values, and sought the use of an

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invariant standard as means of making such deviations manageable and measurable, this issue should be explored further.

Marx criticized Ricardo for confusing the rate of profit with the rate of surplus value. In his view, Ricardo mistakenly identified surplus value with profit:

[Ricardo] correctly expounds the laws of surplus value, he falsifies them by presenting them as direct laws of profit. Elsewhere, he seeks to present the laws of profit directly without the intermediate links, as laws of surplus value.

Therefore Marx warns: "when we speak of his theory of surplus value, we are speaking of his theory of profit, in so far as he confuses the latter with surplus value."³³ Furthermore, Marx alleges that Ricardo assumed the rate of profit from the outset, rather than developing it from the concept of value:

... [I]nstead of assuming this general rate of profit in advance, Ricardo should rather have investigated how far its existence is in any way consistent with the determination of value by labour time ...³⁴

Marx believed that assuming a general rate of profit in advance, Ricardo failed to see that with the assumed rate of profit being positive, values would automatically diverge from prices:

... [T]he very existence of a general rate of profit involves prices of production that are different from values. This is so even if it is assumed that wages remain constant and therefore the difference is quite independent of a rise or fall in wages, and prices of production are a new determinate form.³⁵

All the confusion, according to Marx, stems from Ricardo's alleged inability to transform values into prices. Ricardo attempted such a transformation by replacing the word "value" by the word "profit." He did this by assuming a general rate of profit for different investment capitals of equal size. In other words, Ricardo assumed a profit rate proportionate to the amount of capital employed in production. So, for Ricardo, profit was a given, a data. He should have derived it from the foundation (value) he so correctly built.

After assuming a general rate of profit, Marx claims, Ricardo dealt with the problem of finding the effect of wage changes on relative values given that fixed and circulating

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capitals are employed in different proportions. He expressed this difference in terms of varying periods of turnover of capital. Ricardo concluded that the effect of wage changes on relative values depends upon the degree of fixed capital contained in the industries producing commodities in which wage changes take place. Since a general profit rate was assumed, in order to restore the equality, the prices of commodities must change and also must be regulated in a different way. Assuming a general rate of profit means that there exists a difference between prices of production and values of commodities from the start. According to Marx, Ricardo subsequently missed two points:

1. He did not see that differences in the fixed and variable capitals do not affect "relative values." Values remain the same, but since profit is affected differently in various spheres, average prices become different from values. This is because, according to Marx, prices of production are not determined by the value of commodities but by the capital advanced for their production plus the profit rate.

2. Because constant and variable capitals are differently combined (different organic compositions of capital) the very existence of a general rate of profit involves prices of production that are different from values. This difference would exist even if wages remain constant; it is independent of changes in wages.³⁶

Marx has another argument to explain why Ricardo assumed that the rate of profit was identical with the rate of surplus value: Ricardo neglected the constant part of capital.

4. Constant Capital

Marx claimed that "in his observations on profit and wages, Ricardo also abstract[ed] from the constant part of capital which is not laid out in wages. He treat[ed] the subject as if the entire capital were directly expended on wages. To this extent therefore he deals with surplus value and not profit."³⁷ The following quotation from Marx demonstrates his particular understanding of constant capital which he alleges Ricardo ignored:

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Ricardo never arrives at the concept of constant capital, of which one part consists of fixed capital and the other part -- raw materials and auxiliary materials -- of circulating capital; just as circulating capital includes not only the variable capital, but also raw materials, etc., and all the necessities of life which enter into industrial consumption as a whole (not only those consumed by the workers).³⁸

Marx, giving the following two passages from Ricardo's Principles as references, claims that Ricardo is not interested in that part of constant capital which exists as raw materials:

The proportions, too, in which the capital that is to support labour [the variable capital], and the capital that is invested in tools, machinery, and buildings may be variously combined.³⁹

Not only the labour applied immediately to commodities after their value, but the labour also which is bestowed on the implements, tools and buildings with which such labour is assisted.⁴⁰

Since there is no mention of raw materials in these crucial passages, Marx claims that Ricardo sometimes forgets that constant capital even exists. For example, when Ricardo asserted that the luxury sector did not influence the rate of profit, he forgot about constant capital altogether. Ricardo's conception of "wage-goods" according to Marx, is evidence of this neglect, in that Ricardo claims that rate of profit is not affected by those goods (luxury) which do not enter into real wages (real wages are defined more or less in the same way by both Ricardo and Marx so far as the inclusion of habits and customs of workers are concerned, bringing the social standard of living into the picture). So, the origins of profit for Ricardo lie in the wage relations and this is why Ricardo studied the effect of changes in wages on profit and prices of production. In other words, profits are determined by the conditions of wage-good industry. As far as wage-goods are concerned, all capital, according to Marx, was wages advanced, meaning that rate of profit is derived from the wage-good sector alone. This amounts to the same thing, according to Marx, as saying that the rate of profit is identical with rate of surplus value.⁴¹

At the root of all these, one question lies: by value, did Ricardo mean (a) the amount of labor required for the production of a commodity, or (b) did Ricardo use the

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term value to mean cost of production including profits which come to be the same thing as the "natural price" of Smith. Marx believed Ricardo started with (a), that is why he investigated origins of surplus value and correctly expounded a theory of surplus value. Therefore he had a valid, correct theory of surplus value which changed the foundation of economic analysis dramatically. But when it comes to making a transformation from values to prices in order to arrive at correct laws governing profit, he fell into "Smith's trap" of natural price.

How from the mere determination of the value of commodities their surplus value, profit, and then even a general rate of profit are derived, remains shrouded in darkness for Ricardo. The only thing he really proves ... is that the prices of commodities, ... to the extent that they are determined by the general rate of profit, are completely different from their values. And he arrives at this difference by assuming the rate of profit as a law, and average profit, and therefore also the production prices would be purely imaginary and without basis if we did not take the determined value as the foundation.

Without this foundation, Marx concludes, "the average profit is an average of nothing, a mere figment of the imagination. And in that case it might just as well be 1,000 per cent as 10 per cent."⁴²

C. Conclusion

The importance of Ricardo to the political economy, according to Marx, lies in his ability to analyze economic processes without taking for granted all of the relevant economic categories such as income distribution, existing property relations and production processes. Ricardo, by starting his analysis from the production process (based on the determination of value by labor time), made it possible to compare already developed economic categories with a scientific foundation.

Ricardo opposed and rejected Smith's component part of price theory and announced his own labor theory of value being applicable to all stages of capitalist development. Ricardo considered real wages as a definite social category by emphasizing

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determination of wages in a social relationship, and thus differed from the previous views which considered wages only as "a simple element."

Marx claimed that value, as expounded by Ricardo, is determined in the sphere of production but profit is realized in the sphere of exchange. In order to explain profit, values have to be transformed into prices because prices determine profit. Ricardo assumed market prices deviate from "natural prices" in a systematic way, but the concept of "natural price" came from Smith and was equal to summation of rents, profits and wages. Thus, Ricardo contradicted his theory of value. His preoccupation with the invariable measure of value was a result of his realization of this contradiction. He did not pay much attention to the constant part of capital which, according to Marx, would have made it possible for Ricardo to realize that "natural price" as a concept was unsuitable for the problem he wanted to solve.

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Notes

1. Schumpeter, History of Economic Analysis, 1959, Oxford University Press, p.390: "Marx must be considered a 'classic' economist and more specifically a member of the Ricardian group. Ricardo is the only economist whom Marx treated as a master. I suspect that he learned his theory from Ricardo."
2. Ibid., p.596 " ... Ricardo's only great follower, Karl Marx."
3. See for example, Samuel Hollander "Economics and Ideology: Aspects of the Post-Ricardian Literature," Literature of Liberty, Vol. 2, No. 3, July-September 1979, p.23: "Marx, on my reading is a 'Ricardian' theorist." Also, see M. Dobb, Theories of Value and Distribution, Cambridge University Press, 1973, p.143: "He was in a direct line of descent from Ricardo."
4. P. Samuelson, "Wages and Interest: Marxian Economic Models," American Economic Review, Vol. XLVII, No. 6, December 1957, p.911.
5. M. Dobb, Theories of Value and Distribution, pp. 142-143.
6. Karl Marx, Theories of Surplus Value (TSV hereafter), International Publishers, N.Y. 1952, p.205. Marx wrote "Chapter I deals with value. It is subdivided into seven sections ..." This subdivision is true for only the Third Edition.
7. Sraffa, Works, Introduction pp. xxiv-xxv.
8. Schumpeter, History of Economic Analysis, p.390.
9. Marx possibly meant A. Smith, the Scottish tradition.
10. K. Marx, Capital, Volume I, Vintage Books Edition, 1977, p.96.
11. Marx, TSV, p.204.
12. Ibid., p.202.
13. Ibid., p.203. Italics in original.
14. Ibid., p.207. Italics added.
15. Ibid., p.260. Italics added.
16. Ibid.
17. Ibid., p.268. Italics added.
18. Examples of such interpretations came from Cannan, Hollander, Erich Roll, as will be seen later in our discussion of interpretation by Sraffa.

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19. Ricardo, Works, I, p.35; Marx, TSV, pp.232-33.
20. Marx, TSV, p.233.
21. Ibid., pp.305-328.
22. See below, Sraffa's interpretation of the effects on the size of the national income of changes in the division of national product between workers and capitalists and the crucial importance of the measurement problems.
23. Ibid., p.319.
24. Ibid., p.320.
25. Ibid.
26. Ibid.
27. Marx believed that Bailey's critique of Ricardo's theory of value was justified only to the extent that Ricardo used different concepts of value in a confusing way. See TSV, p.210.
28. Ibid., p.201.
29. See the quotation referred in Footnote 13.
30. Mentioned by M. Dobb, Theories of Value and Distribution Since Adam Smith, 1973, p.29n.
31. Marx, TSV, p.255.
32. Ibid.
33. Ibid., p.283.
34. Ibid., p.212.
35. Ibid., p.214.
36. It must, however, be noted that Marx gives great credit to Ricardo for his associating the difference between fixed and circulating capital with the period of turnover of capital.
37. Ibid., p.283, Italics in original.
38. Ibid., p.211.
39. Ibid., p.215.
40. Ibid., p.211.

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41. Actually, on this point, Marx is not alone. J. S. Mill's critique of Ricardo points to the same concern. M. Dobb -- Theories of Value and Distribution Since Adam Smith, p.128.

J. S. Mill, in Essays on Some Unsettled Questions of Political Economy, 1948. London, pp.99-100, demonstrates by way of a numerical example, that profit depends on cost of production of wages and part of the requisites of production consists of labor expended in the past, and that portion expended in the past prevents value being resolvable into wages. He assumes two cases (p.99), in one, labor expended in the past enters into the production and in the other case all labor is expended in current year making the profit rates different even though total wage bill is the same. Mill concludes the Ricardian theory "is defective" (p.101) but adds: "it is remarkable how very slight a modification will suffice to render Mr. Ricardo's doctrine completely true." (His slight modifications, according to M. Dobb, amount to a return to the 'adding-up-the-components-of price' theory of Adam Smith - see Dobb, p.129) One also should note in passing, the resemblance of the above mentioned two cases to Piero Sraffa's scheme of "Reduction to Dated Labour" in which two cases of producing the same commodity is imagined; one with larger percentage of labor inputs bunched at recent dates, one with smaller percentage of total labor inputs at distant dates. Because of compounding problems (of interest rates), prices of the same commodity vary. (P. Sraffa, Production of Commodities by Means of Commodities, 1960, pp. 34-38.) In Sraffa's scheme, implications of his findings are far reaching, pointing to impossibility of defining any one technique as labor or capital intensive and "the reversals in the direction of the movement of relative prices, in the face of unchanged methods of production, cannot be reconciled with any notion of capital as a measurable quantity independent of distribution and prices." (Sraffa, p.38).

42. Marx, TSV, p.231.

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CHAPTER FOUR: MARSHALL ON RICARDO

Alfred Marshall (1842-1924), one of the most influential economists of the marginalist tradition, has been considered an "able and well-trained pupil."¹ and the "defender"² of Ricardo. His interpretation of Ricardo's economics dissented in many respects from the earlier and influential interpretations of Malthus, Jevons and Marx, who was considered "a Ricardian"³ by some. In recent years, especially with the publication of Economics of David Ricardo by Samuel Hollander, there seems to be a revival of interest in Marshall's interpretation of Ricardo.

The purpose of this section is to explore interpretation by Marshall of Ricardo. Marshall has not written a separate work on Ricardo; his interpretation is scattered throughout his major work, Principles of Economics, which is used here as the major source for his interpretation of Ricardo.

A. General Character of Ricardo's Works and His Method:

According to Marshall, Ricardo was the foremost representative of the school of deductive reasoning. He had a special gift for abstraction. Ricardo wrote not so much for publication but for himself and a few friends who were generally statesmen and businessmen on "points of special difficulty." He had profound thoughts on value and distribution but his exposition was confused. He expressed complex ideas with few words; "his reticence was an error of judgement," which caused misinterpretations. "If we seek to understand him rightly we must interpret him generously."

According to Marshall, Ricardo had a gift of abstraction with strong constructive originality and could safely be labelled as the foremost representative of the school of deductive reasoning. Ricardo's "aversion to inductions and his delight in abstract

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reasoning" are, according to Marshall, due to his semitic origin. The semitic race, says Marshall, had a special genius for dealing with abstractions and also, having had his background in business and financial markets which were especially suitable for abstract reasoning, Ricardo was naturally prone to abstractions.⁴ Ricardo constructed logically sound, intricate theories with new and unexpected results, some of which were difficult to follow. Ricardo's deductive reasoning and his search for broad principles, rather than dealing with particulars, have had something to do with his readership. Marshall claims that Ricardo "wrote originally not for publication but to clear away the doubts of himself, and perhaps a few friends, on points of special difficulty." These friends were businessmen and statesmen with whom Ricardo associated. They were all "men of affairs with knowledge of the facts of life." This is, as far as his readers were concerned, why "Ricardo preferred broad principles, consonant with general experience, to particular inductions from select group of facts."⁵ Ricardo's earlier writings were about the currency and foreign exchange issues which were "excellently treated" because of his familiarity with financial affairs. Later, he investigated the difficult problem of value and distribution.

Such a background and purpose for writing had, according to Marshall, advantages and disadvantages. One advantage was that he imagined strong cases and produced logically consistent and complete and exact principles. However, Ricardo's perception of human beings and human behavior was one-sided. He understood the merchant very well, and took the merchant class as a prototype for his models. He took, according to Marshall, man as a "constant quantity" and assumed man behaving like a "city man"⁶, dealing with business, financial affairs, involved in politics. Therefore, he concluded that seeking wealth is the only motive which drives men. Marshall believed, as long as one was dealing with money and foreign trade this assumption was harmless. But as the progress of nations are to be reckoned with, one has to make allowances "for human passions, his instincts and habits, his sympathies and antipathies, his class jealousies and class

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adhesiveness..."⁷ Ricardo, according to Marshall, did not realize completely that man's character depends on his circumstances. With a mechanistic notion of human beings, Ricardo considered labor a commodity, without really knowing about the laborers; he "attributed forces of supply and demand a much more mechanical and regular action than is to be found in real life; and they [Ricardo and followers] laid down laws with regard to profits and wages that did not really hold, even for England in their own time."⁸

Marshall attributed the controversies about the meaning of Ricardo's theories almost exclusively to his style and his inability to express his ideas clearly. He tells us that Ricardo wrote for those who were familiar with the subject matter and was with difficulty induced to publish his work. "His book makes no pretence to be systematic." He always assumed that his readers were familiar with the issues he discussed, so he purposefully omitted many things, regarding them obvious:

He never explains himself: he never shows what his purpose is in working first on one hypothesis and on another, nor how by properly combining the results of his different hypothesis, it is possible to cover a great variety of practical questions.⁹

Ricardo gave no hint as to what time period his particular analysis belonged to. Even if he ever specified the time period, he passed without giving sufficient warning to his readers from "immediate" to "short" and perhaps to "long" periods. In addition to these shortcomings he used words in artificial senses which he never explained and to which he did not strictly adhere and changed from one hypothesis to another without giving notice.¹⁰

Marshall claims that "Ricardo's reticence was an error of judgement,"¹¹ and his style was the main reason economists interpreted him so variously¹². Malthus complained about Ricardo's "unusual application of common terms." Otherwise he found Ricardo's style perfectly clear. In reference to Ricardo's conception of proportions, Malthus wrote:

It is specifically this unusual application of common terms which has

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rendered Mr. Ricardo's work so difficult to be understood by many people. It requires indeed a constant and laborious effort of the mind to recollect at all times what is meant by high or low rents, and high or low wages. In other respects, it has always appeared to me that the style in which the work is written, is perfectly clear. It is never obscure, but when either the view itself is erroneous, or terms are used in an unusual sense,¹³

So, for Malthus obscurity and thus controversy, was due to the content and conclusions of his theories, especially of value and distribution. Marshall, in contrast, attributed controversies over Ricardo's theories to his style, carelessness and reticence. Ricardo, by the way he wrote, invited ambiguity and misunderstanding. Marshall, therefore, proposes an exegetical rule in interpreting Ricardo:

If we seek to understand him rightly, we must interpret him generously, more generously than he himself interpreted Adam Smith. When his words are ambiguous, we must give them that interpretation which other passages in his writings indicate that he would have wished us to give them. If we do this with the desire to ascertain what he really meant, his doctrines, though very far from complete, are free from many of the errors that are commonly attributed to them.¹⁴

So, according to Marshall's exegetical rule, whenever one encounters an ambiguous term or statement, one should check the other passages in his writings and discover his "real meaning" or the meaning "he would have wished us to give them" and go back and interpret the ambiguous passage generously on the basis of this discovery. Marshall's exegetical rule has been adapted¹⁵ and criticised¹⁶ by other interpreters of Ricardo. But as far as Marshall is concerned, he abided by his rule of "generosity" and as discussed below, criticized Jevons for not granting the same generosity.

B. Theory of Value

Marshall believed that Ricardo did not have a complete theory of value. Due to his stylistic weaknesses he appeared to have a cost of production theory of value, but in fact he regarded cost of production as a part of a larger doctrine: Demand and Supply. Therefore, Marshall claimed, Jevons was not justified and was very harsh in his interpretation of

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Ricardo's theory of value as being cast in terms of labor-embodied; labor as well as "Time" or "Waiting" were elements of cost of production. Furthermore, Jevons himself was wrong in assuming value depending entirely upon utility. Ricardo had a "profound but incomplete" understanding of marginal and total utility in his discussions of "Value and Riches." Ricardo, perhaps, may appear to have overlooked the influence of demand on natural prices with his emphasis on constant returns to scale but this was not so, because Ricardo took constant returns provisionally as an average, being aware that commodities fell into three classes according to how they obey the law of diminishing of constant and of increasing returns.

Marshall, following his exegetical rule, claimed that because of carelessness and for the sake of brevity, Ricardo appeared to have a cost of production theory of value but in reality he considered cost of production only a part of larger doctrine of demand and supply:

Ricardo often glided with careless brevity, as to the dependence of value or cost of production; but which he never regarded as more than a part of a larger doctrine, the rest of which he had tried to explain.¹⁷

Ricardo, according to Marshall, assumed that "in the early stages of society," the value of a commodity (or the quantity of a commodity for which it will exchange) depended on the relative quantity of labor which was necessary for its production. Ricardo thought that this was true because in the early stages of society there was scarcely any use of capital and the qualities of labor did not vary for different works making wage rate almost uniform. In the later stages of civilization, Ricardo, according to Marshall, realized that these assumptions could not be maintained and introduced his modifying principles to the extent that he no longer had his initial labor-embodied theory. He first realized that labor of different qualities had to be rewarded differently. So, if there should be a change in their relative wages, there will be a corresponding change in the relative values of commodities made by

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them. He then introduced another complication. Not only labor applied immediately, but also labor bestowed on the implements and tools, etc., with which such labor is assisted had to be considered too. This was the beginning of the realization that a time element had to be dealt with. Ricardo studied the time element in greater detail in Section IV of his first chapter; in addition to considering the time for which labor must be invested in making machinery to make commodities, Ricardo also concentrated on the length of time elapsing before the goods can be brought to market. If it be long, commodities will have a greater cost of production. Finally, in Section V, Ricardo summed up the influence of different lengths of investment upon relative values. According to Marshall, Ricardo concluded that rise or fall in wages will have no permanent effect on relative values, but if the rate of profits fell, it will lower the relative values of those commodities the production of which requires capital to be invested a long time before they can be brought to market. The introduction of modifying principles meant that Ricardo's early construction of a labor-embodied theory of value was no longer true for advanced stages of society. Interest or returns for waiting also entered into the cost of production governing values. Marshall concludes that:

it seems difficult to imagine how he could more strongly have emphasized the fact that Time or Waiting as well as Labour is an element of cost of production.

Marshall immediately adds that people misunderstood¹⁸ Ricardo because "he delighted in short phrases" and typically "he thought that his readers would always supply for themselves the explanations of which he had given them a hint."¹⁹

Marshall claims that in Chapter IV of his Principles ("On Natural and Market Price") Ricardo insisted that "the market fluctuations of prices are determined by the amount available for sale [supply] on the one hand, and 'the wants and wishes of mankind'

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[demand] on the other" and his notion of demand was profound and based upon a conception of utility:

In a profound, though very incomplete, discussion of the difference between "Value and Riches" he [Ricardo] seems to be feeling his way towards the distinction between marginal and total utility. For by Riches he means total utility and he seems to be always on the point of stating that value corresponds to the increment of riches.

But, "being ignorant of the terse language of the differential calculus," Ricardo "did not get hold of the right words in which to say neatly, marginal utility is raised and total utility is lessened by any check to supply."²⁰ Marshall adds that even though he had a great deal to say on the importance of the subject of utility, he felt that he should have concentrated more on the connection between cost of production and value because policy makers misunderstood these concepts and as a result they were liable to make erroneous policy decision on taxation and finance.

Marshall claimed that Ricardo had a long-run theory of price determination utilizing essentially the demand and supply framework. According to Marshall's own theories one has to differentiate between "market" prices and "normal" prices. First he clarified the meaning of the term normal: "The term refers to the dominance in the long-run of certain tendencies under given conditions,"²¹ therefore, "the normal or 'natural' value of a commodity is that which economic forces tend to bring about in the long-run."²² In contrast "market" prices, or the actual value at any time is often more influenced by passing events, accidental and irregular causes. Both market and normal prices are brought about by various influences, wrote Marshall, but the difference lies in "the persistence of the influences considered, and the time allowed for them to work out their effects." Marshall then states that both utility and cost of production influence value. "Utility preponderates in market value... and cost of production preponderates in normal values."²³ So, Marshall concluded that "as a general rule, the shorter the period which we are considering, the greater must be the share of our attention which is given to the influence of demand on

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value; and the longer the period, the more important will be the influence of cost of production on value. For the influence of changes in cost of production takes, as a rule, longer time to work itself out than does the influence of changes in demand."²⁴ Accordingly, Ricardo, did not ignore the role of demand, but he, being concerned with long-run normal prices gave more importance to cost of production.

Marshall has another argument which ran parallel to this argument. He considers two extreme cases. One extreme is the case of fixed supply, such as the case of rare books or fish market where the daily supply is fixed. In such a case:

if a person... say that the price is governed by demand, his brevity may perhaps be excused so long as he does not claim strict accuracy... Taking a case at the opposite extreme, we find some commodities which conform pretty closely to the law of constant return; that is to say, their average cost of production will be very nearly the same whether they are produced in small quantities or in large... In such a case if a person chooses to neglect market fluctuations, and to take it for granted that there will anyhow be enough demand for the commodity to insure that some of it, more or less, will find purchasers at a price equal to this cost of production, then he may be excused for ignoring the influence of demand and speaking of (normal) price as governed by cost of production.²⁵

Marshall thus tries to defend Ricardo from the charges of ignoring demand. But this defense is a mixed blessing because he considers the case of constant returns as being as extreme as the case of rare books and fish market. Then the question is why did Ricardo confine himself to such an extreme case? Marshall corrects this elsewhere in his book:

Though [Ricardo] was aware that commodities fall into three classes according as they obey the law of diminishing, of constant or of increasing return; yet he thought it best to ignore this distinction in a theory of value applicable to all kinds of commodities. A commodity chosen at random was just as likely to obey one as the other of the two laws of diminishing and of increasing return; and therefore he thought himself justified in assuming provisionally that they all obeyed the law of constant return.

Marshall typically adds that "in this perhaps he was justified, but he made a mistake in not stating explicitly what he was doing."²⁶

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Ricardo's "mistake in not stating explicitly what he was doing" resulted in misunderstandings and led to the controversy over whether "cost of production" or "utility" governs value. Marshall points to the futility of such controversy:

we might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that when one blade is held still, and the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second.²⁷

In an attempt to help resolve this controversy, Marshall discussed Jevons' critique of Ricardo's theory of value in somewhat greater detail. Marshall claimed that Jevons judged Ricardo harshly and attributed to him doctrines narrower and less scientific than those which he really held. In his desire to emphasize the demand aspect of the value problem, Jevons, according to Marshall, went too far to the other extreme, claiming that "value depends entirely upon utility." Furthermore, he believed that Jevons was totally unjustified when he declared that "able but wrong-headed man, David Ricardo... shunted the car of Economic Science on to a wrong line." Marshall attempted to show that Ricardo did not "shunt the car of Economic Science on to a wrong line," he was in line with the tradition of Smith; all he required was a generous interpretation of passages which were open to misunderstanding.

Marshall believed that Jevons' declaration that value depended entirely upon utility was "one-sided and fragmentary" and Jevons' reasoning as to the chain of causation with which he attacked Ricardo was an example of confusing catena for the cause and did not represent a meaningful alternative to Ricardo's alleged system. Marshall examined the chain of causation in which Jevons formulated his central position; namely:

Cost of production determines supply.
Supply determines final degree of utility.
Final degree of utility determines value.²⁸

Marshall claimed that assuming such a series of causation really existed, there was no harm in ignoring the intermediate stages and conclude that "cost of production determines value," which was Ricardo's alleged position anyway. Marshall objected to Jevons' reasoning on the grounds that a) he (Jevons) should have avoided ambiguity caused by the use of terms "cost of production" and "supply," using semi-mathematical tools which were at his disposal, but not at Ricardo's, and b) he completely ignored the purchasing power of consumers as a determinant of demand and c) most seriously, supply price, demand price and quantity produced are determined simultaneously not sequentially. He tells Jevons, as if he is "teaching to school children"²⁹ that "when three balls, A, B, and C, rest against one another in a bowl, ... the position of the three mutually determines one another under the action of gravity."³⁰

Ricardo's theory, on the other hand, though unsystematic and open to some objections seemed to Marshall more philosophical and more realistic in that Ricardo treated the concept of utility correctly but inadequately and, more importantly, took some account of the time element. "It is supply which regulates value, and supply is itself controlled by comparative cost of production, cost of production, in money, means the value of labor as well as of profits."³¹ Marshall claimed that when an appropriate time span is specified, Ricardo's theory of value was really based upon the interaction between Supply and Demand. He may have been guilty of not seeing that various elements, in the problem of value, govern one another mutually and not sequentially in the chain of long causation, but Ricardo was only stating ultimate tendencies, ignoring short run irregularities. Any attempt to disprove his stated ultimate tendencies by means of arguments based on the causes of temporary changes would create perpetual misunderstanding of his theories.³²

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Marshall concentrated almost exclusively on Ricardo's theory of rent. He interpreted Ricardo's theory of rent not so much in reference to the application of capital and labor to decreasingly fertile and distant pieces of land but to the application of successive "doses" of capital and labor to the same plots of land, leading to diminishing returns. As the marginal dose is applied, the return was just sufficient to reward labor and capital; thus price was equal to marginal cost and rent did not enter into price. Using the concept of margins, Marshall showed that Ricardo's theory of rent can be extended to cover other factors and was applicable to other factor returns.

According to Marshall, Ricardo's thoughts on the subject of rent were "excellent" but there were "imperfections" in his expression of them. Ricardo, with his theory of rent "laid down the law of diminishing return without proper qualifications."³³ Because of the pressing issues of his time, Ricardo gave prominence to agricultural rents but his analysis can be easily expanded to include other rents.³⁴ With his theory of rent Ricardo has shown comprehension of the concepts of marginal cost and marginal productivity. Given his assumptions, Ricardo correctly concluded that rent did not enter into prices as a component part. He has shown that, under the assumption of zero elasticity of demand for corn, when tax is placed on corn consumers suffered and landlords did not; importation of cheaper corn from the Continental Europe and agricultural improvements would have been beneficial to consumers, injurious to landlords.

Ricardo, according to Marshall, "confined his attention to the circumstances of an old country" as opposed to newly discovered lands, where the first difficulties of coping with land have already been resolved and land has already been cleared and broken. In such an "old country" (Marshall claimed that Ricardo had England specifically in mind), rent of a farm was due to the following elements: "the first being due to the value of the soil as it was made by nature; the second to improvements made in it by man; and the third, which is often the most important of all, to the growth of a dense and rich population and to

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facilities of communication by public roads, railroads, etc." Even though Ricardo confined his attention to the circumstances of an old country, he, according to Marshall, nevertheless conjectured that the first settlers in a new country chose the richest lands, and as population increased poorer soils were gradually brought under cultivation. This was a "carelessness" on the part of Ricardo. Because of this conjecture, Ricardo attracted undue criticisms as to richest soils being located in jungles, in hard to reach areas. It was also careless because, according to Marshall, there is no absolute standard of fertility. In some new countries poorer soils might have been cultivated earlier but "this is not inconsistent with ...the general tenor of Ricardo's doctrines"³⁵, because he was investigating the conditions under which the growth of population tended to exert increased pressure on the means of subsistence. Marshall claimed that Ricardo laid down the law of diminishing return; "his wording of the law of diminishing return was inexact. It is however probable that the inaccuracy was due not to careless thinking but only to careless writing."³⁶ Marshall, without quoting Ricardo, explained how Ricardo, in fact, meant the following:

Given the pressures of population, Ricardo thought that sooner or later cultivation should be extended. Since Ricardo had principally the conditions of an old country in mind, by extending cultivation he really meant that the existing land would be cultivated more intensively.³⁷ The second cause of rent, "improvements made in land by man," points to intensive cultivation of existing lands. Marshall minimizes the importance of recourse to inferior plots of lands to Ricardo. It was simply "carelessness" on the part of Ricardo. "Making use of the term suggested by James Mill," one can regard the capital and labor applied to land as consisting of equal successive doses. As the first few doses are applied, return would be proportionately larger. With the application of equal successive doses of capital and labor, a point will be reached after which all further doses will obtain less proportionate return than the preceding doses. The dose which only just remunerates the cultivator is called the marginal dose, and the return to it the marginal return. The land on which the marginal dose is applied is called a land on the margin of cultivation. The

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marginal dose may not necessarily be last in time, it is the dose "which is on the margin of profitable expenditure; that is which is applied so as just to give the ordinary returns to the capital and labor of the cultivator without affording any surplus. Since the return to the dose on the margin of cultivation just remunerates the cultivator, it follows that he will be just remunerated for the whole of his capital and labor by as many times the marginal return as he has applied doses in all. Whatever he gets in excess of this is the surplus produce of the land. This surplus is retained by the cultivator if he owns the land himself."³⁸ Marshall claims that Ricardo assumed that this surplus was the rent.³⁹

According to Marshall using the concepts of marginal dose, marginal return, and margin of cultivation, etc., "has the advantage of simplicity."⁴⁰ But it is not necessary for the argument to suppose that there is any such land: what we want to fix our minds on is the return to marginal dose; whether it happens to be applied to poor land or to rich does not matter." So, Marshall contends, rent is due to marginal productivity of capital and labor. "Ricardo was well aware of this; though he did not emphasize it enough." Opponents of Ricardo, not realizing that he really was talking about the return to the marginal dose, "have supposed that it has no application to places where all the land pays a rent, have mistaken the nature of his argument."⁴¹ Marshall contends that because of "hastiness," Ricardo did not allow enough for the increase of strength that comes from organization and opening up of new sources, cheapening of communication and growth of knowledge which can defer the "evil day" of diminishing returns.⁴²

Intensive and extensive cultivation and the significance of Marshall's interpretation of Ricardo's theory of rent in terms of intensive cultivation of the existing plots of land can be demonstrated with the help of diagrams. So far as extensive cultivation is concerned, different plots of land can be represented along X axis where fertilities are lower as one moves away from the origin; and given the fixed application of labor and capital, the yield can be represented along Y axis:

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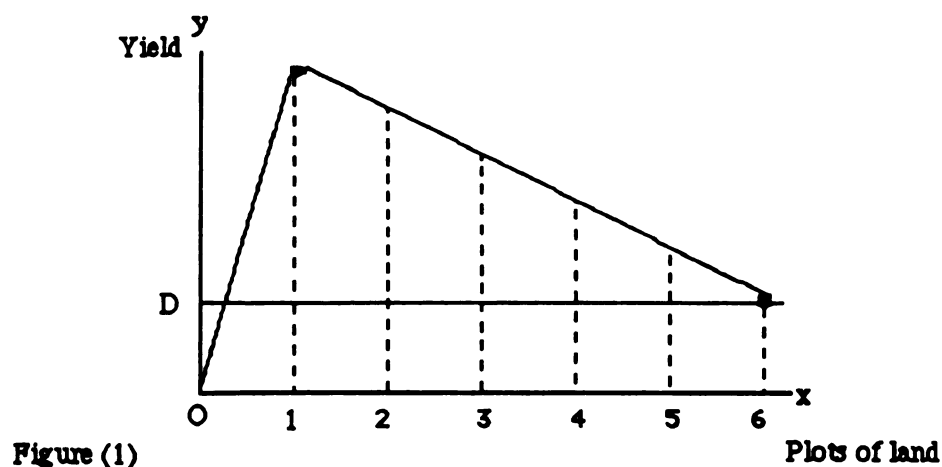
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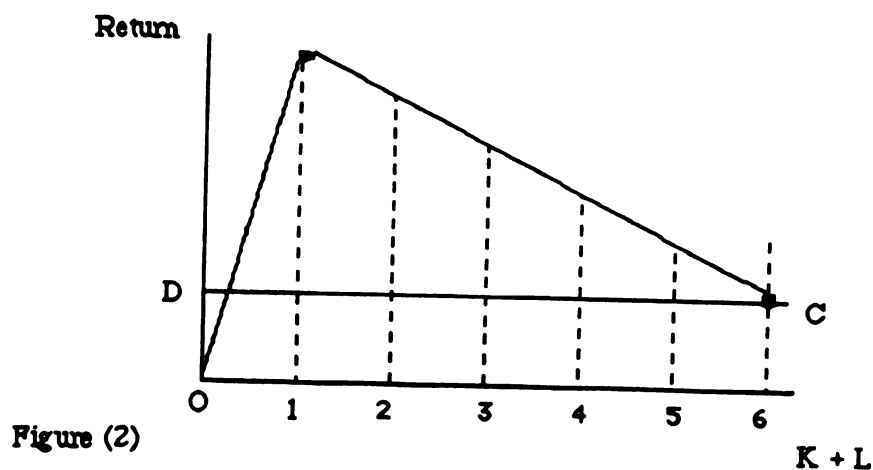
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As new land is put into use, yield or fertility declines. Plot number Six will be the least fertile land yielding just enough to "remunerate" labor and capital only, "without affording any surplus." This, however, is not a functional curve since the height of Y does not depend on the length of X.

Marshall chooses to represent Ricardo's theory of rent in terms of a similar diagram, using intensive cultivation⁴³ where given a fixed area of land of a given fertility, different "doses" of capital and labor represented along X axis and return to doses along Y axis:



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As new doses are applied, return diminishes and the dose six is the marginal dose, its return is the marginal return; OD "is just sufficient to remunerate the dose,"⁴⁴ and the whole area above DC is rent. This is a functional curve. But here in Marshall's representation "margins" or "marginal dose" are applicable to any variable placed on the vertical axis. In other words, in Marshall's representation of the rent theory is generalized to embrace every form of return. As demonstrated by Wicksteed⁴⁵, rent theory, under the assumption of fixed supply, was in essence made equivalent to the marginal productivity theory⁴⁶.

As is known, Marshall extended the concept of agricultural rent (rural rent) to urban rent (ground rent in Marshall's terminology);⁴⁷ he also wrote about consumer's rent⁴⁸, laborer's rent (producer's surplus)⁴⁹, psychological rents resulting from the laws of diminishing marginal utility⁵⁰ etc., but one of his most famous creations was the concept of quasi-rent, which he defined as "the income derived from machines and other appliances for production made by man."⁵¹ Quasi-rent embodied the assumption that any price paid for the services of capital goods is analogous to prices paid for the services of natural agents. The dividing line between quasi-rent and agricultural rent becomes so fine that it is possible to argue that a greater part of landlord's income is quasi-rent (owners of machines and land) and capitalist's income is also quasi-rent. Doctor's income is also quasi-rent since he owns his instruments, which equates quasi-rent to wages (of doctors).

According to Marshall, the equilibrium price of corn is equal to OD in Figure 2, meaning that price is determined by the application of the marginal dose. In the case of extensive cultivation, the price of corn is determined in the least fertile land. Marshall quoted Smith discussing price of coals:

Adam Smith discusses the "price at which coals can be sold for any considerable time"; and contends that "the most fertile mine regulates the price of coals at all other mines in the neighbourhood."

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Ricardo, according to Marshall "following on apparently the same lines, comes to the opposite conclusion that 'it is the least fertile mine which regulates price'; which is perhaps nearer the truth than Adam Smith's doctrine." Marshall claimed that Ricardo was "technically right ... when he said that rent does not enter into the marginal cost of production of mineral produce"⁵² and attacked Jevons for holding that "rent does enter into price." Marshall contended that

It is easier to interpret the classical doctrine that "rent does not enter into cost of production" ... and scoff at it ... The ordinary man is offended by the old phrase that rent does not enter into the price of oats.... It is worse than inexpedient to say that the rent of the land does enter into their price: that is false ... Jevons asks (Preface to Theory of Political Economy, p. iiv): "If land which has been yielding 2 per acre rent, as pasture, be ploughed up and used for raising wheat, must not the 2 per acre be debited against the expenses of production of wheat?" The answer is in the negative. For there is no connection between this particular sum of 2 and the expenses of production of that wheat which only just pays its way.⁵³

According to Marshall, there was really nothing wrong with Ricardo's assertion that rent did not enter into price as a component part. Marshall contends that prices are indeed determined at the "margin" whether the pressure to increase production came from an increase in population as assumed by Ricardo or from the pressures of competition of capitals. Under the conditions of "free competition," producers would be forced to intensify the application of "doses" of capital and labor; price would be equal to marginal cost. Using the term "marginal" in the sense of belonging to "margins," or least favorable circumstances, one is justified according to Marshall, in stating that $P = MC$.⁵⁴

Marshall discussed two cases which demonstrated how "Ricardo delighted to start from sharply defined assumptions as to get clear results."⁵⁵ First, the effect of taxes on corn on the rents received by landlords and second, the effects of agricultural improvements on rents. Marshall claimed that Ricardo assumed that the demand elasticity of corn was zero. This assumption was a "very violent one"⁵⁶ because with a zero elastic demand, any change in the marginal cost of producing corn would affect only the price of corn since zero elasticity implied that the quantity consumed be constant. With no

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international trade, a tax on corn would cause the real value of corn to rise until it is equal to marginal cost; but corn surplus on all different grades of land would remain the same. Accordingly, the consumer suffers and landlords are not affected. Marshall claimed that this conclusion depended upon Ricardo's assumption of zero elasticity of demand for corn where 100% of the tax burden fell on the consumer. Marshall claimed that a more realistic case would have been introduced by a downward sloping demand curve whereby prices, as a result of tax levied on corn, would have risen but not in the same proportion of taxes. Rising prices means quantity demanded of corn declines, thus less would be produced, less labor and capital employed, diminishing corn surplus from all lands but not in the same proportion. If free trade was allowed because of the cheaper imported corn, the price of domestic corn would remain low in price leading to a further decline in rent. Marshall says there was nothing wrong with Ricardo's reasoning except Ricardo might have been guilty of not giving enough hints as to which time period he was referring to. When proper time periods "are supplied, very few of his reasonings will be found invalid."⁵⁷

With respect to improvements in agriculture, Marshall studied only the first class of improvements mentioned by Ricardo: improvements in agriculture which increase the productive powers of land such as more skillful rotation of crops or better choice of manure.⁵⁸ Marshall wrote that, this is a sort of improvement which enabled one to "obtain the same produce with less capital, and without disturbing the difference between the productive powers of the successive portions of capital."⁵⁹ Marshall claimed that, when such improvements take place, given the zero elasticity of demand for corn, Ricardo successfully demonstrated that capital would be withdrawn from the least productive land so that the corn surplus will no longer be relative to the worst land; and the differential productivities of any two applications of capital by hypothesis being unchanged, corn surplus must necessarily fall much more than proportionately thus being proportionately injurious to landlords. Marshall reiterated that this result hinged on the assumption of zero elasticity and noted that the difference between the productive powers of successive

portions of capital in terms of amounts (not in terms of proportions) is not disturbed. In other words, the change which was brought about by the improvements in agriculture did not alter the differential advantages of different applications of capital.

In conclusion, Marshall claimed that Ricardo's case of improvements in agriculture, being injurious to landlords, was also applicable to urban land. For example, he claims, as a result of improvements in "the arts of building," and technology, it may be possible to build "stores sixteen stories high," each occupying less land so that a good deal of land would have to be reverted to less remunerative uses, leading possibly to a fall in the aggregate site values of the town; thus being injurious to landlords.⁶⁰

2. Theory of wages

Marshall claimed that it would be incorrect to attribute to Ricardo an "iron" or "brazen" law of wages as commonly done by German socialists. This is another misunderstanding explicable by "Ricardo's delight in imagining strong cases" and "his habit of not repeating a hint, which he had once given, that he was omitting for the sake of simplicity the conditions and limitations that were needed to make his results applicable to real life." According to Marshall, Ricardo believed that the natural limit of wages was fixed by no iron law, but was determined by local conditions, customs and habits of each place and time. Marshall quoted Ricardo to show that he was very sensitive to the importance of a higher standard of living and "called on the friends of humanity to exert themselves to encourage the growth of a resolve among the working classes not to allow their wages to fall anywhere near the bare necessities of life."⁶¹

According to Marshall, Ricardo was aware of the distinction between variations "in the amount of commodities paid to the labourer as wages" and variations in the "profitableness of the labourer to his employer." In other words, Ricardo was aware of the distinction between the real wages and marginal productivity of labor. Because, according

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to Marshall, Ricardo saw that it was in the interests of employers to regard wages as a ratio to the value of output, he decided to measure wages by this ratio. So wages rose as wages/value of output increased and fell as this ratio diminished. Ricardo's treatment of wages in terms of this ratio caused confusions because he did not remind his readers often enough. Agricultural improvements led to higher productivity of labor and increase of population necessitated larger crops to be forced from a limited land. This eventually led to lower productivity of labor because of the action of the diminishing returns. Ricardo, according to Marshall, did not pay careful attention "to the increase in the productiveness of labor that results directly from an improvement in the laborer's condition." Had he paid this attention, Marshall concludes, economic science, as well as the well being of the country would be much further advanced. Finally Marshall found Ricardo's treatment of wages "less instructive" than that in Malthus' Political Economy, but did not elaborate.⁶²

3. Theory of Profits:

Marshall did not write much about Ricardo's theory of profits except to say that he was very much aware and very strongly emphasized that time or waiting was also an element of cost of production and Rodbertus and Marx were incorrect in assuming Ricardo did not consider interest as a part of cost of production which governed value. He wrote that Marx was wrong in claiming whole of the "surplus" should belong to labor because in the production capital is always used and "capital itself is the product of labor and waiting... if we admit that it is the product of labor alone, and not of labor and waiting, we can no doubt be compelled by inexorable logic to admit that there is no justification for interest, the reward of waiting"⁶³, but he says, this conclusion would depend upon the assumption of waiting not a factor, which is not accurate and is opposed to explicit statements by Ricardo.

Perhaps because of the fears of possible ideological overtones of class struggles, (Marshall seems to be sensitive to such terms for he preferred to use "class jealousies," or "class adhesiveness" if he had to) he did not write about the inverse profit-wage relation, which is given a central place in Ricardo's economic analysis by the later economists such as Sraffa and S. Hollander.

Marshall's reticence on Ricardo's theories of wages and profits is not an error of omission. His interpretation of Ricardo's theory of rent implied that returns to all "factors of production" are governed by the same general principle: Marginal Productivity. Theory of income distribution was ultimately an aspect of a larger theory of pricing. Even though here and there Ricardo made some errors and failed to explain himself very clearly, he knew that this larger theory of pricing, according to Marshall's interpretations and implications, had two inseparable components: Demand and Supply; upper and lower blades of a pair of scissors. "When one blade is held still, the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second; but the statement is not one to be made formally, and defended deliberately."⁶⁴

Notes

1. Joan Robinson, "An Open Letter from a Keynesian to a Marxist," Collected Economic Papers, Vol. IV, Humanities Press, 1973, p.267.
2. Eric Roll, A History of Economic Thought, Third Edition, Prentice Hall, N.J., p.401.
3. Samuel Hollander, "Economics and Ideology: Aspects of the Post Ricardian Literature," Literature of Liberty, Vol. 2, No. 3, July-September, 1979, pp.5-35, especially p.23.
4. Alfred Marshall, Principles of Economics -- Eighth Edition, MacMillan and Co., Ltd., 1927, p.761n.
5. Ibid., p.761.
6. Ibid., p.702.
7. Ibid., p.762, Italics added.
8. Ibid., p.763.
9. Ibid., p.761.
10. Ibid., p.813.
11. Ibid., p.816.
12. Ibid., p.821, Marshall mentions interpretations of Macleod, Walras, Menger, Marx and Rodbertus, and Jevons.
13. Ricardo, Works, Vol. II (Notes on Malthus) p.194.
14. Marshall, Principles, p.813.
15. As discussed below in Chapter Nine, Stigler, in connection with the question of what the author "really believed," proposed a criterion that one has to check alternative interpretation against the author's "known style" and decide whether or not his/her interpretation suits the author's known style. He called this the principle of "personal exegesis." In addition to "personal exegesis" Stigler claimed that "we increase our confidence in the interpretation of an author by increasing the number of his main theoretical conclusions which we can deduce from (our interpretation of his analytical system." (Stigler, "Textual Exegesis as a Scientific Problem," Economica, XXXII, Nov. 1965, p.448). Stigler called this the principle of "Scientific Exegesis." As discussed below most of the controversies are about the "main theoretical conclusions" of Ricardo.

16. Marshall's "generosity" has been criticized by Joan Robinson, who claimed "that wretched neoclassical tutor [Marshall] took advantage of the obscurities produced by Ricardo's scruples to make out that he meant the opposite of what he said" (Joan Robinson, "A Lecture Delivered at Oxford by A Cambridge Economist," Vol IV, Collected Economic Papers, Humanities Press, N.Y. 1973 p.263). Similarly, see A. Roncaglia, "Hollander's Ricardo," Journal of Post-Keynesian Economics, Vol. 4(3), Spring 1982, p.343: "... This generosity ... meant discarding Ricardo's 'surplus' approach a disposal fostered by its dilution by 'Ricardians'; then short sentences, when taken out of context, were interpreted as gestures to vaguely shaped marginalist notions."

17. Marshall, Principles, p.817.

18. As an example of this misinterpretation Marshall says "Rodbertus and Marx interpreted Ricardo's doctrine, to mean that interest does not enter into that cost of production which governs (or rather takes part in governing) value." (Ibid., p.817n).

19. Ibid., p.816.

20. Ibid., p.814.

21. Ibid., p.36.

22. Ibid., p.347.

23. Ibid., p.348.

24. Ibid., p.349.

25. Ibid., pp.348-49.

26. Ibid., p.814.

27. Ibid., p.348.

28. Quoted from Marshall, Ibid., p.817.

29. Schumpeter, History of Economic Analysis, Oxford University Press, New York, 1959, p.922. Schumpeter claimed that Marshall's criticism of Jevons was very harsh; that Marshall took advantage of the deficiency of Jevons' technique; yet he himself "failed to do justice to the substance of the position criticized." Schumpeter tried to rescue Jevons from Marshall's criticism that Jevons, in spite of defective presentation, really discovered that "the position of the balls is to be accounted for by a single principle, gravitation, in the case of mechanics, utility, in the case of economics." (p.922).

30. Marshall, Principles, p.818.

31. Marshall, Principles, p.819.

32. Ibid., pp.816-821.

33. Ibid., p.833.

34. Ibid., p.168, "The theory of ground rents is substantially the same as that of farm lands. This and similar facts will presently enable us to simplify and extend the theory of value as given by Ricardo and Mill."

35. Ibid., pp.156-167.

36. Ibid., p.163.

37. It should be noted that this interpretation seems to be the exact opposite of Schumpeter's interpretation. Schumpeter said "It is perfectly clear that it was location and differential fertility of different plots of which Ricardo thought primarily, and that the case of decreasing effects of successive applications of equal 'doses' of labor to the same plot was, for him, a matter of secondary importance and was never fully absorbed into his system." History of Economic Analysis, 1959, p.675.

38. Marshall, Principles, pp.156-167.

39. Ibid., p.162.n2.

40. It should be noted here that the term "margin" does not appear in any of the writings of Ricardo. The use of the terms "intensive margins," "extensive Margins," and other such concepts (marginal dose, marginal return and margin of cultivation, etc.), has been a source of confusion. This confusion was first pointed out by P.H. Wicksteed, "The Scope and Method of Political Economy," The Economic Journal, Vol XXIV (1914) pp.1-23; reprinted in Readings in Price Theory, Ed. G. J. Stigler and K. E. Boulding 1952. Wicksteed said (p.25 reprint) : "Now attempts have been made to erect a theory of distribution upon the consideration of 'margins'...The 'marginal' man, working on the 'marginal' land, under the 'marginal' conditions, with the 'marginal' appliances, is taken as the ultimate basis of the pile, and wages, rent and interest are explained as 'differential' in their nature; that is to say, as due to the superiority in quality, position, or point of application, of such-and-such work, land or apparatus, over the 'marginal' specimens. I do not stay to examine this theory on its merits; but it is necessary to insist on the almost incredible fact that there is constant confusion between it and what I have tried to expound as the 'differential' theory of distribution, simply because they can both be described as 'marginal', and the term 'differential', though in quite divergent senses, may be introduced in the exposition of either." Wicksteed claimed that "there is a fatal ambiguity in the use of the word 'marginal' ." According to Wicksteed, rent as put forth by Ricardo, meant "superior article fetches the superior price, in proportion to its superiority: ... rent is a differential charge... due to an inherent difference of quality in the things charged for, assumes that there is some land which bears no rent at all" (pp.22-25). Wicksteed claimed that " 'incremental value', 'efficacy' or 'significance' of anything cannot conveniently carry its proper meaning of the value attached to a small increment or decrement of anything, varying with the expansion or contraction of the supply" so, marginal significance depends on supply, "marginal significance of supply of bread depends upon how many loaves of bread I take, if [I have 100 loaves of bread], any one of 100 loaves has exactly the same marginal value; but as soon as one unit is withdrawn, all the remaining 99 will have a higher marginal value; and when one is added, all the 101 a lower."(p. 25) So, this meaning of marginal and the term marginal signifying the lowest grade or quality, or least favorable condition, diverge.

41. Marshall, Principles, p.154. Marshall did not mention names of those "opponents" but it is probable that he had Say in mind. Ricardo mentioned Say's opposition: "M. Say in his notes to the French translation of this [Ricardo's Principles]

work has endeavored to show that there is not at any time land in cultivation which does not pay rent..." (p.413n, Sraffa , Works Vol. I.)

42. Marshall, Principles, pp.165-167.
43. Ibid., p.162 or 835, etc.
44. Ibid., p.835.
45. Wicksteed, Coordination of the Laws of Distribution, London, McMillan, 1894.
46. Marshall, sometimes accused for "inadequate acknowledgement" (Schumpeter, History of Economic Analysis, pp. 474 and 839 for example) of others' work, mentions Wicksteed's Coordination of the Laws of Distribution, not in connection with Wicksteed's demonstration of the equivalence of rent theory (in the sense described) to marginal productivity theory but compliments him for "arguing ingeniously that rent may be negative, taxes may absorb rent" (p.162n).
47. Marshall, Principles, pp.440-454.
48. Ibid., pp.124-133.
49. Ibid., p.140-142.
50. Ibid., p.94n and 157n.
51. Ibid., p.74.
52. Ibid., p.439n.
53. Ibid., pp. 436n-437n.
54. See Footnote 40.
55. Marshall, Principles, p.833.
56. Ibid., p.834.
57. Ibid., p.834.
58. Ricardo, Works, Vol. I, p.80. Ricardo's second class of improvements are concerned with increasing the productive powers of land by improving machinery.
59. Marshall, Principles, p.835.
60. Ibid., p.837.
61. Ibid., pp.508-509.
62. Ibid., p.550.
63. Ibid., p.587.

64. Ibid., p.820.

CHAPTER FIVE: W. C. MITCHELL ON RICARDO

Wesley Clair Mitchell's interpretative approach to Ricardo differs distinctly from most of the approaches investigated in this study. He utilizes some socio-cultural, political, psychological and institutional variables and criteria and makes differential institutions such as habits, customs, human nature, environment, etc.; a part of the interpretative "box of tools." His interpretations have been considered "external macro interpretations," that is, they are couched "in terms of outside historical, environmental or sociological factors"¹ and sometimes labelled as "the relativist interpretation in its moderate version... yield[ing] valuable fusion of the history of economic thought with the history of political and moral philosophy against the background of economic and political history."² This section investigates the interpretation by Mitchell of Ricardo.

The principal source for Mitchell's interpretation of Ricardo is his famous lecture notes published under the title of Types of Economic Theory: From Mercantilism to Institutionalism³ and an article on Ricardo, "Postulates and Preconceptions of Ricardian Economics,"⁴ which is included as slightly modified, in his book The Backward Art of Spending Money and other Essays.⁵ For present purposes, Chapter V of Types of Economic Theory and the Introduction are most relevant.

A. Historical Background, Environmental Factors, and the Preconceptions of Ricardo

Mitchell's interpretation makes use of historical conditions of the time and conversely his interpretative results are checked against the historical facts. For the purpose of establishing the historical background he uses biographies of James Mill, Jeremy Bentham, Malthus, and Francis Horner. Against the background of the Napoleonic Wars, Mitchell investigates economic and political circumstances which affected Ricardo's thinking. He singles out two economic problems which influenced Ricardo's thinking, high inflation and the Corn Law struggles. Ricardo was actively involved with the

monetary controversies of the time and blamed the Bank of England as the major cause of high British inflation. He sided with the "bullionists" and had an important role in the famous Bullion Report. Together with the monetary issues, the Corn Law struggle was, according to Mitchell, the most important event that shaped Ricardo's thinking. Debates on the corn question lingered for a long time and

developed into a conscious class struggle between the landed interests which were preponderant in Parliament and the business interests, which though but slenderly represented in the House of Commons, were beginning to be exceedingly formidable debaters.⁶

The laboring class was assumed to be outside the whole corn debates. Mitchell quotes from the speech of a great London banker, Alexander Baring, in the House of Commons he he expressed common sentiments:

"to talk of laborers having an interest in the corn law controversy was altogether ridiculous. Whether wheat was 120s. or 80s. the quarter he could only expect dry bread in one case, and dry bread in the other."⁷

The whole Corn Law issue, in Mitchell's view, has turned into a class struggle between the manufacturing interests on the one side and the landed interests on the other side. It led to the dissolution of the Anti-Combination Acts which were a tacit alliance between the landed and the manufacturing interests. Anti-Combination Acts contained measures to check the organization of unions among the laborers trying to get higher wages. The issue was profits versus rents; manufacture and commerce versus agriculture. The landed interest thought that their share in the total product was threatened by the fall in the price of grain, which would occur once the Corn Laws were repealed, and cheaper grain was imported from Continental Europe. Thus, the problem of distribution of income naturally presented itself to Ricardo. He derived his problem directly from the Corn Laws issue.

In addition to knowledge of political and economic and ideological conditions of the time, Mitchell finds it helpful to know other related elements such as

the intellectual environment in which Ricardo lived, ... the activities of the various groups of reformers of his time -- the anti-slavery men, the prison workers, the Spencean philanthropists, the suffrage workers, the revolutionary

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artisans who debated in the Rotunda, the educationalists who followed Joseph Lancaster, and Andrew Bell and Robert Owen in their successive phases, the Clapham Sect, the official Whigs, The Edinburg Review connection -- all these people and most of all the philosophical radicals with whom Ricardo associated, with their widely varying diagnoses of social ills, ... their remedies, ... their methods of propaganda.⁸

In order to capture the character of Ricardo, his mode of thinking and the nature and content of his work, one must have some understanding of Ricardo's preconceptions. Mitchell considers "three of Ricardo's most significant preconceptions and levels on which his analysis runs"⁹ as follows: 1. the physical environment in which Ricardo lived; 2. the Social organization, (including the industrial technique of his day and people); and 3. the human nature of his contemporaries as he understood them.

In Mitchell's reading, the physical environment in Ricardo's theories appear under the guise of natural resources. He thought that because population is steadily growing it will be harder to make a living from a given soil. Diminishing returns will eventually set in. Accumulation of capital, the progression of inventions, improvements in the techniques of cultivation, improved transportation and unhindered importation of relatively inexpensive food from abroad would only delay the inevitable decrease in the standard of living. Mitchell finds it rather curious that Ricardo did not pay much attention to mankind's increasing knowledge which may counteract what he called the "niggardliness of nature." In Ricardo's type of theory, Mitchell believes, natural resources were given to be constant and since land yielded proportionately less and less returns, he looked at the future with grave misgivings. This may partly explain why he is sometimes considered a pessimist.

The second of Ricardo's preconceptions, according to Mitchell, is that the social organization of the country and the age in which he lived had developed into a mature state from a long past. Ricardo failed to see how capitalism evolved. Social organization had evolved from the past, so he simply took for granted that it had reached maturity and was not going to change in the future. Mitchell, very perceptively, notes that Ricardo thought he was living in the highest stages of development. He analyzed the earlier and ruder stages with notions quite appropriate for his time. He assumed that weapons necessary to

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kill a beaver were capital. He also assumed that savages in America, South Pacific or Africa carry on trade for commercial advantages. Ricardo's historical perspective (or rather lack of it), according to Mitchell, was that of a businessman who carried over categories with which he was familiar, into the lives of people who lived under totally different circumstances. Because of his capitalistic notions about savage life, he failed to see how capitalism evolved from the past. Since he thought he was living during a time in which capitalism reached maturity, when he looked ahead he saw a natural decline to a stationary state. The same sort of mistake appears in his analysis of savage life. Based on the notions of his time, when Ricardo looked ahead he expected to see the same classes with the same characteristics, capitalists, landlords and laborers dividing the pie into different proportions. He assumed that in transition from the progressive state to stationary state there would be a decline of profits, a slight decline in wages and a marked increase in rents. Ricardo therefore thought that social organization, as he saw it, must persist, not because he had such a high opinion of it, but because he believed that no change could be brought about without leaving mankind in a worse condition.

Mitchell claims that Ricardo's conviction rested upon ideas of a Benthamite nature, especially the idea that security is more important than equality. Any attempt to increase men's pleasures by dividing wealth more equally would necessitate interference with the property rights of owners. If property rights were interfered with, natural competition would be destroyed. And, if a person were not allowed to enjoy the gains of his work, no accumulation would take place and therefore no employment, leading inexorably to a decline in wealth. If, on the other hand, private property rights were left untouched because of a fear of decline of wealth (which Ricardo argued, according to Mitchell), social organization could undergo no drastic changes.

Ricardo's preconceptions about human nature, according to Mitchell, were similar to those of Bentham. He was in close intellectual affinity with him and was an admirer of Benthamite doctrine (in its theoretical, logical form) and therefore accepted the utilitarian

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description of human behavior. As much as he was an admirer, he was "much less formalist" and lived not "in a secluded world of a philosopher" but in a real life with rough turns and the ups and downs of business realities. Since he was eminently successful in practical life, he did not see the world around him "through distorting windows of an academic study."¹⁰ Therefore, he brought many qualifications to Bentham's conception of human nature. He, like Bentham, had the conception that human behavior is characterized by a calculating pursuit of self-interest: this was basically true in business, in politics and in morals. Dealing with real life situations and with competitive struggles, he allowed for a series of lapses from perfect rationality. He admitted that people are generally inclined to underestimate their chance of failure in an undertaking. Human can sometimes be prejudiced, obstinate, blindly patriotic, and even outright irrational. Businessmen sometimes cling to a declining trade. Lower classes were unable to calculate their interests; thus marry early, take delight in domestic life, and have large families.

Ricardo attributed the danger of over population -perhaps under the influence of Malthus -- to "delights of domestic society" and he thought that this was a weakness of the wage earning class."¹¹ Implications for this line of reasoning are far reaching since:

if the mass of wage earners did not succumb to these delights, then population would not keep increasing and the terrible law of diminishing returns would not be brought into effective operation; profits need not fall, wages might even rise, and the day when the land owners and the receivers of titles would become masters of a very large portion of the total output of society might be indefinitely postponed.¹²

Now, something of a paradox appears in Mitchell's interpretation: Ricardo, on the one hand, understood human behavior as a rational, calculating pursuit of self-interest, yet on the other hand, allowed for a series of lapses from rationality. Mitchell finds an explanation in that Ricardo, as Mitchell interpreted him, thought that man was a creature of habits, and driven by "habits and customs." Rather than tying workers' longing for having children and causing overpopulation to moral standards (in opposition to Malthus), Ricardo

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placed an emphasis on habits when explaining man's insistence to get married early and raise children. The merits of Mitchell's interpretation of Ricardo lie in his acceptance of the role played by habits and customs in Ricardo's theory of wages and economic policy.¹³ Therefore, wages would be determined according to prevailing standards of living in different regions of the same country and also varies from country to country. This seems to recognize workers' position within their social setting. The emphasis on habits, however, may also be interpreted as workers being habitually accustomed to maintaining certain modest consumption patterns. Still another interpretation might be that workers were habitually accustomed to maintaining rigid consumption patterns. Mitchell believes that Ricardo subscribed to the latter position. He maintained that wages were generally fixed; assuming that real wages would be fixed in short-run, perhaps shrinking a little in the long-run, but for all practical purposes not varying very much. Mitchell points out that Ricardo's subscription to a fixed-wage theory should not be interpreted as a defense of crudely physical-subsistence levels or, still more extreme, an iron-law of wages. Even though the consumption patterns of working classes were habitually rigid, the size of wage bill for a given region would depend upon particular habits and customs and would be different for other regions. Similarly, habitual preferences of businessmen checked the migration of capital, and patriotic preferences of investors led them to prefer home to foreign investments (even though at times home investments yielded a smaller rate of return). As discussed below, in Mitchell's view, (because of recognition of the role played by habits in business affairs), Ricardo set forth an additional law of value -- comparative cost -- which regulated exchanges between countries.

Mitchell contends that the general assumption that man is a rational, calculating machine is extremely facilitating in social sciences, especially those constructed by speculative, deductive methods. "If the inquirer can suppose that what men do would be determined by their interests, and if he ... could see broadly where men's interests lie, then he could tell what they would do. Along that line, he could speculate freely, elaborately,

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subtly and comprehensively, concerning all sorts of problems of human behavior; not only in economics alone, but in jurisprudence, education, ethics, law, and sociology."¹⁴ Ricardo's qualifications for the general assumption of man as being rational and calculating may thus be seen as a self-created obstacle which interferes with his easy theorizing. But on Mitchell's reading, Ricardo got around the problem, by again treating the deviations from rationality as constant elements in his problem and not as variables. When Ricardo took man's insistence upon having a certain standard of living and his eagerness to get married and have children as constants, he reached the conclusion that real wages would be a fixed quantity. As population increases there will be resort to inferior lands (or cultivate existing land more intensively). This would lead to smaller marginal products and a smaller share of capital. Since competition would equalize profits in all different sectors, there will be a reduction in profit in general. Ricardo's conception of human behavior was not artificial, machine-like since he always allowed for weaknesses and departures from rationality. Nevertheless, he had a standardized conception of human nature. In Mitchell's view, Ricardo attributed different lines of behavior patterns to the three classes which he thought were relevant: capitalists, laborers, and landlords.

The capitalists are presented as creatures who are animated chiefly by a restless desire to find the most profitable investments ... The working classes are dominated by habit and by a tropismatic longing to marry. As for the landlords in Ricardo's system, they are people who are raised by their position above economic strife to reap their double gains in idleness and honor.¹⁵

B. Ricardo's Theories of Distribution and Value

As explained above the pressing issue was the corn laws struggle and Ricardo derived his problem of distribution directly from the corn struggle. "His theory of distribution was an economist's analysis of the problem under debate in Parliament in the form in which it appeared in the Parliament."¹⁶

Mitchell, first clarifies the meaning of the word "distribution." He says, "'distribution' is a word of many meanings"; distribution of wealth, distribution of income,

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distribution of money, etc. "For Ricardo, distribution concerns the distribution of income ... and he is concerned with what is called real income; that is the amounts of goods capable of satisfying wants."¹⁷ His problem was how to divide real income among three recognized classes (capitalists, workers, and landlords) in terms of proportions. Since it was assumed that labor had nothing to do in the corn law controversy, Ricardo took it for granted that real wages were substantially constant; leaving only rent and profits as the variable factors. Ricardo's treatment of profits in the Essay, in Mitchell's view, was an interesting exemplification of his method, which was clearer than that offered in his Principles. In his model, Ricardo assumed that no major change takes place in methods of cultivation, real wages remain constant, and no food is imported from other sources. The most important feature of the model was that

money was left out of account and the capital laid out by farmers, the wages that they disbursed to workers, the profits that they received, the rents that they paid to landlords - all were reduced to quarters of wheat.¹⁸

Ricardo's analysis, according to Mitchell's interpretation, can be summarized as follows: As population increased and capital accumulated, with the real wages assumed to be constant, it became necessary to get more food. With unchanging technology and unchanging amounts of grain imported, it became necessary to use more land or to use the existing land more intensively. Additional lands brought into cultivation must be of a lower grade of fertility. On the last land taken into cultivation no rent is paid, thus the produce is divided among two classes: farmers and laborers. Since real wages remain constant, the reduction in the return would fall wholly upon profits. Since competition equalizes the profit rates in all employments, "lower profit in agriculture ... would be extended from marginal lands to all other lands and to all other industries."¹⁹ Decrease in profit rates would be accompanied by an increase in rents, therefore the share going to landlords would increase, and the share going to capitalists would decrease.

Ricardo, according to Mitchell's interpretation, turns around and drops his restrictive assumptions one by one. First, he allows money into his system. The use of

money causes the price of agricultural goods to rise in comparison with the price of other goods. But Ricardo's conclusions as far as distributional shares are concerned, are the same: "profits still fall." Mitchell believes that Ricardo "simply announces this conclusion without argument." This fall in profit is the consequence of rising money wages. Rents still rise. In fact, landlords will make a double gain. First, they will get a larger share of the produce. Second, the rise of the relative price of the agricultural commodities means that the larger share of the produce which the landlords get will be worth more to them. It follows then, that "the interest of the landlord is always opposed to the interests of every other class in the community."²⁰

The second simplification Ricardo dropped was that the method of cultivation had not changed. Mitchell states that in the case of improvements, Ricardo's whole analysis requires modification, but Ricardo according to Mitchell, did not consider modifications important:

It was a qualification, but not of such significance as to prevent the general conclusions which he had derived from the assumption that methods of cultivation remained constant. Improvements in agriculture, ... he briefly admits, tend to raise profits, ... tend to lower rents.²¹

Finally in the third place, Mitchell claims, Ricardo dropped the assumption that real wages remained the same. Mitchell wrote:

He [Ricardo] said that real wages changed as population or capital grew faster ... but he said nothing could be positively laid down on this head; therefore there was no reason to modify the general conclusions that had been drawn.

So, according to Mitchell, "Ricardo did not know quite how to bring them [changes in wages] into his general scheme of theory."²²

In Mitchell's view, Ricardo, after the publication of his Essay, corresponded intensely with Malthus and was constantly bothered by an inability to tie his doctrine of distribution to some sort of valuation. In the course of writing the Principles, Ricardo had to clarify his ideas on the underlying concept of value before discussing the matter of

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distribution. For Ricardo, the central place in his thought was occupied by a discussion of price in its relation to value, distribution of income, taxation and secular trends in production and wealth. Mitchell points that Ricardo's treatise seemed like an "assembly of mechanically disconnected parts ... He had three different laws of value and these three laws of value are distinct from those of distribution, with one unimportant exception: Ricardo points out that demand and supply regulate the market price of labor and the market rate of interest, but that is all."²³ These three distinct laws of value were: 1) the law of supply and demand; 2) the law of cost of production; and 3) the law of comparative costs. Mitchell claims that his law of comparative cost was applicable to international trade only and was different in character from the other two. In Mitchell's view, Ricardo did not see the interrelation between the first two laws and was opposed to Malthus who claimed that the law of cost of production is closely related to and subsumed in the law of supply and demand. Ricardo believed that, "natural price" was "wholly dependent on cost of production, and has nothing to do with demand and supply."²⁴ Mitchell clearly contrasts Ricardo's theory of value and distribution with Marshall's, where all the problems of value are discussed in terms of supply and demand. Marshall:

uses utility analysis to explain the conditions on which demand depends over periods of considerable length; and then presents this law of value as applicable to all economic values. With this foundation the theorist goes on to develop an analysis of distribution by showing that since wages are the price of labor, that interest is the price paid for the use of loan funds, that rent is the price paid for the use of land, and that profit is the price which a community has to pay for the services of business organizers and risk takers, they are all capable of treatment as problems of value.²⁵

Mitchell claims that "such integration is lacking in Ricardo," his law of distribution being independent of the laws of value; and concludes that Ricardo's having different theories of distribution and value are inconsistent.

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In spite of the seemingly abstract character of Ricardo's theories of distribution and value, and despite his fondness of "imaginary experiments," Mitchell claims that he was an exceedingly practical man, interested in clear cut results for the current problems of the day. Ricardo advocated policy recommendations which proved to be beneficial to the capitalist class. He sees David Ricardo's formation of economic theories as being closely linked with the formation and advocacy of policies beneficial to capitalist class. Ideology enters into every phase of Ricardian theory: his choice of problems, formulation of his economic statements, and policy recommendations are all ideologically conditioned. So, study and interpretation of Ricardo's theories in the light of actual policy questions of the time, is for Mitchell the key to understanding the intention and emphasis of his theories. He tells us that Ricardo derived his problems from the then current issues debated in the Parliament and designed his theories to promote the interests of capitalist class. This can be seen either by following Ricardian theory from its assumptions, down to the construction of general concepts and to conclusions; or working back in a pragmatic way from the policy prescriptions to support of general concepts. Either way, general concepts are shaped by ideological considerations and his inclinations.

In order to make the point, Mitchell, by way of a detailed class analysis, tries to handle two questions at the same time: 1) whose interests are Ricardo's theories designed to serve? and 2) why did Ricardian theory attain its dominant position during his lifetime and "reign supreme" for at least a generation after its chief author died?²⁶ In dealing with the second question, Mitchell wrote that "it cannot be claimed that it was because of the surpassing merits of Ricardian analysis ... The reason has to be found... in the practical usefulness of his analysis to the class which had, because of peculiar circumstances, the deepest interest in economic theory, and for the promotion of whose interests the Ricardian theory was perfectly adapted."²⁷ In other words, Ricardo was a great capitalist and the capitalist class of the time was most active and dominant in the intellectual life of England. Mitchell suggests that as far as governmental matters were concerned, landlord class was

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the predominant class. "But the landlords were not a class of people that had any particular use for economic theory of any sort. They were living on tradition. They objected to theory on principle. They did not read even Malthus for the most part."²⁸ Mitchell takes the other class, the laboring class, and claims that the laboring classes contained but a small proportion of people who read books. The few who did take an intellectual interest in the current problems read not Ricardo, but the "labor writers." If the working class "wanted economic theory, they did not have to go to Ricardo for it, but could find the brand more peculiarly suited to their purpose in the writings of other individuals." Mitchell notes that they had more immediate problems, such as securing fuller representation of their class in the Parliament. The remaining class, the capitalists, "had extremely lively interest in economics and Ricardian economics was admirable fitted to their uses. In various ways his analysis aided the avowed and unavowed purposes of the capitalist class."²⁹ So, the dynamic role that capitalist class played in the intellectual life of England was the main reason why Ricardian theories endured.

As for which tenets of Ricardian theory served the interest of that class, Mitchell gives Ricardo's advocacy of preserving and securing private property rights as the best example. Unsecured property would reduce incentives to invest, resulting in diminishing returns and will eventually check accumulation of capital.

Ricardo's theory made use of the Malthusian population theory to prove that the working classes were responsible for their own poverty. One of the implications of Malthusian population theory was that a too redundant population was responsible for the miseries of the working man. Both private property and population theory also served the interests of landlords, who, along with the capitalists, were paying poor rates and would like to see poor relief taxes eliminated. However, Ricardo had another doctrine which was most acceptable to capitalists and most unacceptable to landlords. This was his doctrine of free trade and comparative advantage as it is applied to international trade. Ricardo argued very effectively for abolishing the corn laws, by showing that cheaper grain from France or

Poland would lower domestic prices and leave some domestic land out of cultivation and reduce rent, which would hurt the interests of landlord class.

Ricardo's doctrine of wages also served the interests of the capitalist class. According to Ricardo's theory, wages were determined by the amount of capital and the population of the country. The wage earning class had no control over their wages except limiting the growth of their numbers. This would mean that unions' attempts to obtain better wages are not only useless, but indeed harmful to the interests of workers. This is because their incomes were made at the expense of nonunionized members of the working class (assuming a fixed wage-fund). Unions could do nothing to reduce the number of people who needed wages and they could not add to capital.

Mitchell believes that the "analysis of economic conditions which Ricardo and still more of his followers set up, played definitely into the hands of capitalist class. When one says this, of course, one is not bringing in an indictment against the honesty of Ricardo or of his followers. They were not paid agents of capitalism. Ricardo was a great capitalist. He spoke what he thought were the lessons of his life."³⁰

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Notes

1. Terence Hutchison, "On the Interpretation and Misinterpretation of Economists and of the History of Economic Literature," Gli Economisti E La Politica Economica, Edited by Piero Roggi, Naples: Edizioni Scientifiche Italiane, 1985, pp. 323-343, especially p.325.
2. Mark Blaug, Economic Theory in Retrospect, Richard D. Irwin, Inc. 1968, p.3.
3. Wesley Clair Mitchell, Types of Economic Theory from Mercantilism to Institutionalism (hereafter TET), edited by Joseph Dorfman, Augustus M. Kelley Publishers, N.Y., 1967.
4. W. C. Mitchell, "Postulates and Preconceptions of Ricardian Economics," Essays in Philosophy, Edited by T. V. Smith and W. J. Wright, Open Court Publishing Co., Chicago, 1929, pp.27-60.
5. W. C. Mitchell, The Backward Art of Spending Money, New York, Kelly 1950. pp.203-224.
6. Ibid., p.279.
7. Ibid.
8. Ibid., pp.5-6.
9. Mitchell, The Backward Art of Spending Money, pp.203-224.
10. Mitchell, TET, pp. 338-340.
11. It is generally agreed that Ricardo was influenced by Malthus' theory of population, as the theory of population had a tremendous intellectual impact on every thinker of his time; even today variations of population theory is accepted by theorists dealing with economics of underdeveloped countries. However, as Mitchell notes, Ricardo was not inclined to attribute dangers of overpopulation to an "instinct of sex" (to use a Veblenian phrase) or promiscuous intercourse or to the moral turpitude of the working class. He simply was interested in the number of children born within marriage.
12. Mitchell, TET, p.341.
13. Ricardo acknowledges the importance of habits and customs: "...natural price of labor...essentially depends on habits and customs of the people." Works and Correspondence of Ricardo, VIII, p.208. Habits and customs played an important role for classical economists in general. For classicists "customs would govern the structure of economic organization and conditions of the substance of the resolution of the basic economic problems through structuring the economic decision-making process and through influencing or conditioning the content of behavior." W.J. Samuels, The Classical Theory of Economic Policy, N.Y. 1969. pp.59-66., an example of economic decision-making for Ricardo could be his attribution of the importance of habits and customs in eliminating the poor laws. Marx also praises Ricardo for his allowance for habits and customs since,

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previously Marx thinks, "wages had always been looked upon as a simple element, and consequently the worker had been regarded as an animal. In Ricardo, however, he is considered in his social relationship." Theories of Surplus Value, International Publishers, 1952, p.320.

14. Mitchell, TET, p.342.

15. Ibid., p.345.

16. Ibid., p.287.

17. Ibid.

18. Ibid., p.288.

19. Ibid., p.289.

20. Ibid., p.291.

21. Ibid., p.292.

22. Ibid., p.293.

23. Ibid., pp.309-310.

24. Ibid.

25. Ibid., p.311.

26. It must be noted here that not everyone would agree that Ricardian theories "reigned supreme" for at least a generation after Ricardo died. For example, Ronald L. Meek wrote: "After Ricardo's death, the retreat of the more respectable economists from this basic idea [labor-embodied theory] was quite remarkably rapid... After 1826...practically the only reputable economist to continue to defend Ricardo's theory of value (apart from a few relatively unimportant popularizers who did little more than expound it) was J. R. McCulloch, his defense contained a number of rather bizarre elements which afforded an easy target for critics." (Ronald L. Meek, Studies in the Labor Theory of Value. Second Edition, Monthly Review Press, N.Y. 1956, p.121.) As we saw above, Marx also considered 1830s as the end of Ricardian economics. J. P. Henderson notes that "Ricardo's influence waned with his death in 1823." Together with Torrens; Thompson, Whewell and Jones started a vigorous campaign against Ricardo's theories, so much so that even Ricardo's life long adversary, Malthus, was not pleased. Henderson quotes Malthus:

I was hardly prepared to expect that in so short a time as has since elapsed, one of the questions in the Political Economy Club should be: 'whether any of the principles first advanced in Mr. Ricardo's work are now acknowledged to be correct?' My apprehension at present is that the tide is setting too strong against him...

(J.P. Henderson, "The Political Economy Club: Robert Torrens and the Decline of Ricardo's Influence," Research in the History of Economic Thought and Methodology, Vol. 2, pp.77-105, especially p.82 and 101) M. Blaug also notes that "...If we choose to regard the labour cost theory of value as the kernel of Ricardian economics we are driven to

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assert that the vital influence of Ricardo came to an end in the 1830s." (M. Blaug, Ricardian Economics, New Haven, 1958 p.245). It must, however, be noted that for an entirely different reason S. Hollander wrote about the longevity of Ricardianism. " My investigation reveals an impressive resilience of the fundamental Ricardian theorem on distribution and its derivations in terms of the standard measure of value, amongst the so-called 'dissenters'." S. Hollander "The Reception of Ricardian Economics," Oxford Economic Papers Vol. 29(2), July 1977 p.221) Elsewhere S. Hollander wrote: "Ricardo's theorem on distribution shows that a firm and positive impression was left on ... 'dissenters' par excellence -- including T.R.Malthus, Samuel Bailey, Robert Torrens and Mountifort Longfield." (S. Hollander, "Economics and Ideology: Aspects of the Post-Ricardian Literature," Literature of Liberty, p.24).

27. Mitchell, TET, p.363.

28. Ibid.

29. Ibid., p.364.

30. Ibid., p.369.

CHAPTER SIX: J.A. SCHUMPETER, F. H. KNIGHT AND G. STIGLER ON RICARDO

The purpose of this section is to explore Joseph A. Schumpeter's, Frank H. Knight's, and George J. Stigler's interpretation of Ricardo and to identify the underlying elements which shaped their vision of him.

The main reason for including Knight and Stigler with Schumpeter is not so much that they belong to the same paradigm or that their understanding of economics is similar to Schumpeter's, but because they seemed to agree with one another on the essentials of Ricardo and seemed to approve one another's interpretation of Ricardo. In addition, it will be argued that once stripped from numerous reservations and qualifications, technically the interpretative style of Schumpeter turns out to be similar to that of Knight and Stigler.

I. J. A. SCHUMPETER ON RICARDO:

Schumpeter has not written a separate work on Ricardo; his interpretation of Ricardo is scattered throughout his masterpiece, History of Economic Analysis,¹ which is used here as the major source. In his masterpiece, Schumpeter studied major doctrines and assessed the contributions of economists from a special perspective of "Economic Analysis." By this he meant a set of formal techniques and rules and the command of facts unearthed by these techniques. Thus, Schumpeter's interpretation of Ricardo oftentimes is in the form of a critique based on this chosen standard of evaluation.

A. General Character of Ricardo's Works:

For Schumpeter, the importance of Ricardo for the history of economic analysis resided in his ability to construct "an engine of analysis" for the first time in a consistent way to produce unambiguous results. He was the first economic "model builder" in the modern sense of the term:

Construction of such an engine of analysis entailed the consequence that the individual elements that make up general economics were welded together into a systematic unit as they never had been before. However unsystematic Ricardo's Principles is in form, it is a systematic performance of the first order in substance ... Though he owed much to A. Smith, owed very little to other authors. I believe, in fact, that his subjective originality was of a high order.²

Schumpeter viewed Ricardo as a practical thinker who was interested in the "clear-cut results of direct, practical significance."³ Ricardo tackled the problems of his day by means of tools that he devised by criticism. His work was original in spite of the fact that his thought was inspired by Wealth of Nations and his ambitions to correct the defective parts of Smith. Ricardo's Principles was a direct result of his creative criticism. His scope was much narrower than Smith's and his topics of discussion were limited. Even though Malthus served him as an "intellectual stimulus," and Ricardo discussed some of his points with James Mill, he owed very little to any other writer.

According to Schumpeter, Ricardo's success in devising a consistent "engine of analysis" and the subsequent clear-cut results was due to his intellectual capabilities. These capabilities are characterized by the ability to narrow down the range of topics to be discussed, and to differentiate and isolate the analytical elements from the philosophical and historical elements:

Ricardo is usually described as a utilitarian, but he was not one. This is not because of his having had another philosophy but because that busy and positive mind had no philosophy at all.⁴

In spite of his friendship with J. Mill and other philosophical radicals (Bentham for example) he had no sociology either. According to Schumpeter, Ricardo lacked historical sense and did not even read much about history. Therefore, he was able to focus and enlarge upon specific topics without being hindered by sociological, historical, and philosophical perspectives.

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He was not of the mind that is primarily interested in either fundamentals or wide generalizations. The comprehensive vision of universal interdependence of all the elements of the economic system that haunted Thunen probably never cost Ricardo as much as an hour's sleep.⁵

Given the mechanical nature of Ricardo's theories (especially that of distribution), this lack of a sociological historical and philosophical perspective did not harm his theories. On the contrary, it probably improved their consistency. However, his policy recommendations "... miss insights into the motive powers of the social process and, in addition, historical sense."⁶

According to Schumpeter, Ricardo obtained his clear-cut results by holding constant as many variables as possible, assuming them as given. Thus, left with few aggregative variables between which, given his simplifying assumptions, "he set up simple one-way relations so that, in the end the desired results emerged almost as tautologies. For example, a famous Ricardian theory is that profits 'depend upon' the price of wheat." Schumpeter claims, "profit could not possibly depend upon anything else, since everything else is 'given'," and Schumpeter concluded: "applying results of this character to the solution of practical problems we shall call the Ricardian Vice."⁷

In Schumpeter's view, the most important contribution of Ricardo to "scientific economics" was his "priceless gift of leadership. He refreshed and irritated. In either case, he shook up." He constructed a consistent, original "engine of analysis," which was brand new, exciting and represented a "decisive advance." But "of course, if a defective engine meets with success, that advance may easily prove to be a detour. And let me state at once: a detour Ricardian analysis was."⁸ Postponing the discussion about the reasons Schumpeter considered Ricardian theory as a "detour" and what really was the "Ricardian Vice" to later, let us now focus on what Schumpeter understands to be the "Ricardian engine of analysis."

B. Ricardo's Theory of Value.

Before discussing the place of Ricardo in the history of economic analysis, it is essential to develop what Schumpeter understood about the "Ricardian engine of analysis." Schumpeter did acknowledge Ricardo's contributions to the theory of money and monetary policy, and his theory of international trade. However, he saw Ricardo's theory of value and distribution as the main theoretical structure of his works. According to Schumpeter, Ricardo's theory of value laid at the heart of his "engine." Before discussing the exact nature of Ricardo's theory of value, Schumpeter clarified several points. First, Ricardo's main purpose was to find rules which regulate exchange value of mass produced commodities. Scarce commodities were left out. Mass produced commodities possessed utility. This was assumed but utility did not regulate exchange value of commodities. Second, his labor quantity law applies to "natural prices," that is, relative prices that will ultimately prevail when temporary market disturbances have subsided. So, his main purpose was to establish fundamental or long run tendencies. Ricardo, according to Schumpeter, was not in full possession of an "explicit perfect equilibrium concept" and therefore had to admit that market prices of commodities are governed by a different law, namely, demand and supply. Long run prices of commodities are regulated by the absolute quantity of labor embodied in them:

The central theorem of Ricardian theory of value: in conditions of perfect competition (which Ricardo failed to specify) the exchange value of commodities will be proportional to the quantities of labor contained or embodied in them ... and that this [i.e. labor applied or embodied] is really the foundation of the exchangeable value of all things.⁹

Labor was defined as the "socially necessary labor" using Marx's terms. Differences in quality of labor posed no problems since skilled labor can be expressed as a multiple of normal labor (in terms of labor hours).

In the course of investigating the relative values of commodities, Ricardo mentions an additional cause besides the labor embodied: the length of time¹⁰ which must elapse

before the goods can be brought to market. This is, of course, Ricardo's modifying principle. Schumpeter reacts strongly to this and finds it very damaging to Ricardo's main construction:

So the murder is out. To be sure, Ricardo tried to minimize the damage to his fundamental construction by pointing out the quantity of labor still remains the most important determinant of relative value, which is why we described his theorem as an approximation.¹¹

Therefore, Schumpeter concluded that Ricardo's allowance for the modifying factors reduced his labor theory of value to "an approximation." But this alone was not a strong enough reason to classify Ricardo's theory of value as a cost theory of value similar to Smith's. Considering it as an approximation:

seems to do more justice to his thought than does the interpretation that appeals to other historians: these¹², following a lead of Marshall's, prefer to say that Ricardo had 'really' a cost theory of value ... but if this were all, his exposition would reduce simply to a roundabout way of stating a view that was current in his time: it would be difficult to see what it was he fought for with so much insistence and what the ensuing controversies were about.¹³

Technically, Schumpeter places Ricardo's theory of value against the utility theory of value, and interprets him as being an enemy of supply and demand theory:

For Ricardo, the main point at issue was from the first labor quantity versus supply and demand. The utility theory of value, which he had glanced at and rejected (as the 'source' or 'cause' of exchange value), was not really in the picture ... The true enemy was the supply-and-demand theory¹⁴ ... It implies, of course, that Ricardo was completely blind to the nature, and the logical place in economic theory, of supply-and-demand apparatus and that he took it to represent a theory of value distinct from and opposed to his own. This reflects little credit on him as a theorist.¹⁵

Schumpeter claims that Ricardo's mistake in not believing in demand-and-supply apparatus actually stems from his efforts to posit a theorem intuitively rather than trying to deduce it rationally from the concept of scarcity.¹⁶ Had Ricardo generalized the concept of "scarcity" and used it to explain long-run prices "he could never have denied the validity of the 'law'

of demand and supply."¹⁷ This, however, rather than being an explanation for why Ricardo did not use the demand-and-supply framework and instead used the labor-embodied perspective is paramount to saying: he should have utilized the utility perspective. It should be noted that the utility perspective, in fact, generalized Ricardo's case of "rare statues and pictures, scarce books and coins,"¹⁸ and Ricardo's special case of agriculture where diminishing returns led to increase in cost as demand rose.¹⁹ Ricardo dismissed the former case as unimportant and assumed that the latter case was applicable only to agriculture.

C. Ricardo's Theories of Distribution:

Schumpeter believed that "Ricardo was unable to deal with systems of simultaneous equations"²⁰ and that his theory of distribution reflect the efforts of a theorist attempting to solve a complex problem with primitive methods who inevitably fails.

Schumpeter points out that the fundamental problem for Ricardo was the determination of laws which regulate the distribution of the total product among the classes. Ricardo made this clear in the preface to his Principles. In Schumpeter's view, Ricardo wanted to solve an equation with four unknowns: $\text{net output} = \text{rent} + \text{profits} + \text{wages}$. All of these aggregates were measured in labor time. Ricardo took the net output as given, "a strange view to take," according to Schumpeter, for an economist who wanted to determine the laws which regulate distribution without having anything to say about the laws which regulate total output. Thus, Ricardo "got rid of one of these four variables." One equation in three variables was still a "hopeless business," so Ricardo used his theory of rent to get rid of another variable in the equation.

According to Schumpeter, Ricardo assumed that as population increased, it became necessary to extend cultivation to less fertile lands. Price was determined on the margin of agricultural production so that, rent was equal to zero and did not enter the price of agricultural goods. Schumpeter believes that Ricardo actually did have the "correct" approach once when he defined the rent as being "the price paid to landlord for the use of the original and indestructible powers of the soil." While this definition "contain[ed] all that is needed for a satisfactory theory of rent, [Ricardo], before our eyes, turned away from the open road and embarked upon his detour."²¹ Schumpeter does not tell us what the "open road" was, but from his argument it is clear that he means that utility and scarcity of natural agents were all Ricardo needed in order to explain the phenomenon of rent. Since Ricardo's value theory was couched, according to Schumpeter, in terms of labor-

embodied, he lacked these concepts and felt that he had to eliminate rent because rent did not contribute to wealth.

Schumpeter claims that even though Ricardo was interested in both intensive and extensive rents, one cannot confidently claim that Ricardo's understanding of diminishing returns implies diminishing marginal productivity. In fact, intensive rent was a matter of secondary importance for Ricardo:

From the structure of his argument in Chapter 2 of the Principles, it is perfectly clear that it was location and differential fertility of different plots of which Ricardo thought primarily, and the case of decreasing effects of successive applications of equal 'doses' of labor to the same plot was, for him, a matter of secondary importance and was never fully absorbed into his system.²²

Schumpeter concludes that Ricardo by carrying his analysis to the agricultural margin of cultivation, might have shown some understanding of marginal cost but he did not have the understanding of marginal productivity that for example Longfield and Thünen did. For a

complete productivity theory of rent "mere recognition of the element of productivity does not help," it has to be "streamlined by the notion of marginal productivity."²³ This was lacking in Ricardo. Therefore, Ricardo's theory of rent was designed just "to get rid of another variable in the equation" he wanted to solve. But, Schumpeter wrote, "one equation and two variables was still a hopeless business."

In Schumpeter's view, Ricardo had found the solution by assuming wages fixed and was thus left with one variable: profit. He calls this approach a "primitive patchwork":

It occurred to Ricardo, wages are not really variable either, at least not within that equation. He thought he knew, from external considerations, what they will be in the long run: here the old Quesnay theory comes in, reinforced by Malthus's law of population - the wages will be roughly equal to what is necessary to enable the labourers, one with another, to subsist and to perpetuate their race without either increase or diminution." And so we reach the blessed goal at last: profit, the only variable left, is determined too. Call this patchwork ingenious, if you so please, but do not deny that it is patchwork -- and rather primitive at that.²⁴

This simplistic, "primitive patchwork" type of approach, in Schumpeter's view, was dictated by Ricardo's inability to handle system of simultaneous equations. Therefore, Schumpeter sees no similarity whatsoever between Ricardo's analytical method and the general equilibrium system of Walrasian type, where all factors are determined simultaneously in a given system.

Schumpeter ascribed the method of Comparative Statics²⁵ to Ricardo because, in his opinion, Ricardo investigated "the properties of a 'normal' state in comparison with the properties of that 'normal' state from which [analysis] started: the new 'permanent' incomes, prices, and quantities are compared with the old incomes, prices and quantities."²⁶ From Schumpeter's attribution of the method of comparative statics to Ricardo, we can deduce that Schumpeter did not believe Ricardo possessed the techniques of difference equations either. The technique of difference equations, of course, makes it possible to study economic processes by dividing them into periods where the economic outcomes in period t may be generated in the period $t - 1$. Still, some of the outcomes may be available in period $t + 1$. In other words, difference equations enable theorists to study economic processes as systems of periods and lags.

Ricardo, in conclusion, according to Schumpeter, did not possess the techniques of difference equations and differential calculus, yet attempted to solve a complex problem of distribution. His procedure was to freeze as many variables as possible, or take them as given. This was an over-simplification, but Ricardo did not hesitate to state the results he obtained as solutions to practical problems. This, in essence, was the Ricardian Vice.

D. The Place of Ricardo in the History of Economic Analysis.

As discussed above, the importance of Ricardo for the history of economic analysis, according to Schumpeter, resided in his ability to construct a systematic, consistent "engine of analysis" to produce clear-cut results. His work was "original" and

represented "a decisive advance." Schumpeter, however, considers Ricardo's "engine of analysis" to be defective and claims that when a defective engine meets with success, advance may easily prove to be a detour. Schumpeter announces: a detour Ricardian analysis was; thus, sharing Jevons' judgement some 80 years before him: "that able but wrong-headed man, David Ricardo, shunted the car of economic science on to a wrong line."²⁷ In Schumpeter's view, Ricardian analysis broke the link between the classical tradition and the modern tradition. In other words, if it wasn't for Ricardo's analyses, the line that goes from Quesnay, Turgot, Smith, J. S. Mill and down to Walras and the modern economics of the marginalist tradition would have been continuous. His theories prolonged the advance of economics and represented a break in the link.

The basic tenets of the Ricardo's economics representing a "detour" for the science of economics can be summarized as follows: 1) Ricardo's theory of value differed distinctly from the widely accepted, utility based demand-and-supply theory. 2) Ricardo eliminated rent as a factor, from the value problem. 3) He determined income distribution independently and prior to commodity valuations.

We have discussed Schumpeter's position on Ricardo's theory of value vis-a-vis utility theory of value. Schumpeter seems to believe that Ricardo's position concerning utility is really the starting point for his "faulty" theory of value. Ricardo took utility as simply a prerequisite or a mere condition of exchange value. For him, utility could never be a "source" or "cause" of value. After all, useful things like air and water would normally have no exchange value. Ricardo's mistake, according to Schumpeter, in discarding utility as a source or cause of value, really stemmed from his "failure" to appreciate the importance of scarcity. Utility, unconnected to scarcity, was insufficient for Ricardo as the regulator of exchange value. Economists of the utility tradition of the time (J.B. Say, Condillac) shared the "inadequacy" in that they appreciated utility being the cause of value but they could not integrate utility with scarcity. Such simple problems as water giving great utility but having no value, could not be solved satisfactorily. In

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addition to the faulty handling of scarcity, economists of the time (Lauderdale, Malthus, Say, and later Senior) failed to understand monopolistic pricing. Confusion stemmed from inability to differentiate "scarcity of land" from the "landowners acting like a single seller." Schumpeter claims that "they [Malthus, Senior, Lauderdale] talked of desires, or desires backed by purchasing power, of 'extent' of demand and 'intensity' of demand, of quantities and prices but did not quite know how to relate these things to one another."²⁸ Ricardo, however, with his forceful analysis of value, was able to divert attention and delay the establishment of a "consistent" theory of value couched in terms of utility. His theory of value, therefore, represented a detour leading away from the earlier original yet incomplete formulations of a demand-and-supply framework. Schumpeter points out that "the concepts, so familiar to every beginner of [today], of demand schedules ... and supply schedules ... proved unbelievably hard to discover and distinguish from the concepts -- quantity demanded and quantity supplied."²⁹

Ricardo's exclusion of rent from the value problem was a part of the Ricardian "detour" according to Schumpeter. He claims that Ricardo's exclusion of rent had nothing to do with the "niggardliness" or "bounty" of nature. He had to eliminate rent from the value problem simply because his "value theory rests upon labor embodied ... [and] the idea of an addition to product value by something that is not labor would seem, from [Ricardo's] standpoint particularly objectionable."³⁰ Ricardo, rather than improving his original definition of rent as the price paid to landlord for the use of land, turned away and embarked upon this detour. Schumpeter claims that Ricardo needed clear comprehension of the concepts of utility and scarcity of natural resources in order to be able to develop a productivity explanation for rent. In Schumpeter's view, Malthus, when he defined rent as being the surplus that is owed to the bounty of nature, was on the right track but he looked for concrete facts associated with the phenomenon to be described, whether or not they were essential to it. Eventually, claims Schumpeter, Malthus "produced a mongrel, which was much vulnerable to Ricardo's rapier."³¹

Schumpeter claims that Ricardo's theory of rent was based upon "extensive margins"; therefore he should not be credited with a clear comprehension of the concept of marginal productivity. Later efforts of J.B.Clark and other marginal productivity theorists were not "an outgrowth of Ricardo's theory of rent ... they were not generalizing Ricardo's schema but upsetting it."³²

Finally, distribution of income and pricing of commodities treated as separate issues, was the third outstanding reason Ricardo's analysis was a detour. In order to understand why Schumpeter considered Ricardo's analysis of value and distribution a detour, one has to first understand the earlier perception. In the writings of Condillac, Bastiat, and Turgot, capitalist production and distribution is seen, in the final analysis, as a web of exchanges of productive services. The determination of the prices of productive services is realized in this system of exchange.³³ Schumpeter himself clearly describes the mechanics of this exchange system:

Production in the economic sense of the term is nothing but a combination, by purchase, of requisite and scarce services. In this process, each of the requisite and scarce services secures a price, and the determination of these prices is all that distribution or income formation fundamentally consists in. Thus the process effects in one and the same series of steps, production in the economic sense and, through the evaluation of productive services incident to production, also distribution or the formation of incomes. Thus, in this schema, capitalist production and distribution cease to be what they would be in a socialist community, namely two distinct processes: we behold but one process of choices and evaluations of which production and distribution are merely two different aspects. And all types

of incomes are by this schema explained on one and the same principle, the principle of pricing the services of co-operating factors. Analytical task of showing how this principle, so obvious in the case of consumer's goods or their services, may be made to apply also to the case of producers' goods or their services, was not clearly discerned, let alone accomplished before the rise of the theory of imputation.³⁴

The "discovery" of the theory of imputation is generally attributed to the Austrian School (Jevons, Menger and Walras); Menger in particular was noted³⁵ for arguing that prices of productive services are derived from the prices of final output. When imputation theory is

used together with the principles of substitution (substitution both in the use of productive services and in the consumption of commodities), the economic process is seen as a simultaneous determination of prices of goods and prices of "factors of production," giving perfectly symmetrical results. Ricardo was lacking all of the essential ingredients of an integrated theory of value and distribution: theory of incremental variations (marginality), theory of imputation, conception of scarcity, theory of substitution and the general technical apparatus: system of simultaneous equations. Schumpeter agrees with G. J. Stigler that " 'the classics' were not in possession of the principle of substitution."³⁶ He also agrees with F. H. Knight that Ricardo had " 'no clear or definite conception of the meaning of economy as a process of maximizing a value return' and that 'the problem of distribution ... was not approached as a problem of valuation at all'."³⁷ Schumpeter admits that perhaps Knight went a little too far in the second part of the statement but nevertheless concludes that "the full implications of the fact that capitalist distribution is a value phenomenon, were not clearly seen even by Ricardo."³⁸ Schumpeter thus concluded that:

Ricardo failed to see the explanatory principle offered by the valuation aspect. This failure [divorce of distribution from valuation] is intimately related to a peculiarity of the Ricardian work that is essential for understanding him and proves better than does anything else that this [his] work constitutes in fact a detour and falls out of the historical line of economists' endeavors.³⁹

In the final analysis, Schumpeter did note that Ricardo had a system which was clearly "original," "brilliant," and "arresting," in which there was "genuine analysis" without "any superfluous sentence in his pages." However, his "engine of analysis" was defective. He was nevertheless immensely successful and his success, apart from the technical merits of his analysis, can be attributed to its policy recommendations:

People took to his theory because they agreed with his recommendations. He became the center of a circle that looked to him for guidance and in turn defended his opinions. It is neither his advocacy of winning policies per se, nor his theory per se, that to this day makes him, in the eyes of some, the first economists of all

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times, but felicitous combination of both.⁴⁰

II. FRANK H. KNIGHT ON RICARDO:

The purpose of this section is to study Frank H. Knight's interpretation of Ricardo. Knight has been considered "the teacher and the major promulgator of the particular point of view of the Chicago School."⁴¹ Schumpeter, in general, has agreed with Knight's interpretation of Ricardo on many crucial issues and likewise, his influence can be felt in Stigler's interpretations of the economics of Ricardo. Knight's general interest in the study of the classical economists was to expose their mistakes and "aberrations," so that what he considered to be the "correct view" would stand out in contrast.⁴²

The main source for the interpretation by Knight of Ricardo, is his articles entitled "The Ricardian Theory of Production and Distribution." Knight's books and his famous introduction to the Principles of Economics by Menger contain his criticisms of the classical economics and economic organization.

A. Ricardo's Theory of Value:

Knight did not write very much on Ricardo's theory of value. It was a "quantity-of-labour theory of value,"⁴³ based upon a perception of economic life as "irksomeness" reflect[ing] the possibility of using one's personal powers for some purpose other than that of creating exchange value."⁴⁴ In his opinion, it was an "unfortunate conception of value ... [cast] in negative terms - cost, interpreted as 'pain' -- instead of positive terms -- desire or utility."⁴⁵

Knight observed that Ricardo's main interest in value was motivated by his ambition to correct the circularity he observed in Smith's theory of value. He wanted to make the theory of value "monistic" in contrast with "pluralistic."

The task he set himself was two-fold: to get rid of all use of prices to explain prices, and to find some one thing, not itself a price, to which

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the price of a product must be equal. For fairly simple reasons, he picked quantity of labor.⁴⁶

Knight did not say what the "simple reasons" were, but, as will be apparent below, it was an empirical choice. Yet, even on empirical grounds it was a "crude fallacy":

"Ricardo and the rest, followed avidly by Marx, used crude fallacies or gross simplifications to reduce cost to quantity of labor."⁴⁷ In order to explain prices in terms of labor-embodied, Ricardo, according to Knight "had to explain away the price determining roles of capital and land (or their remunerations) and he had to overcome the further difficulty that for common sense the price of labour as paid by the entrepreneur does not correspond to its quantity."⁴⁸

Knight observes that Ricardo was not interested in the absolute value of commodities but only in the variations in the relative value of commodities. In spite of "misuse of words," says Knight, it is clear that:

He [was] concerned with historical changes and not with equilibrium relations or tendencies, a position characteristic of many modern writers. The difficulty (as with his later emulators) is that a large part of what he sa[id] makes sense only in connection with a theory of equilibrium.⁴⁹

Ricardo's theory of value had some realism if it is treated historically. In other words, it had some empirical validity but analytically⁵⁰ it was an "aberration" based on a "crude simplification":

If we could view Ricardo's system in a purely historical light, as an explanation of contemporary events, it would, in a general way, fit the facts as to the outstanding changes in England during the half-century prior to the date of his book. The main fact was an increase of several fold in the prices of agricultural relative to manufactured products. And it would be correct to explain this, in the main, and speaking superficially, by the increase in the efficiency of "labour" in manufactures through inventions, and its decrease in agriculture in consequence of the pushing outward of the margin of cultivation ... The latter change was a consequence of the increase of population and the disruption of foreign trade by the wars. The first was a phase of the Industrial Revolution, which also underlay the growth of population.⁵¹

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In Knight's view, Ricardo's theory of value was based upon his vision of productive organization only in connection with agriculture, and his vision of productive organization was influenced by "a fallacy": the assumption of "production as production of wealth" rather than the "correct" view of assuming it as the production of services. Knight believes that Ricardo's treatment of value in connection with natural price had some merit but his theories of distribution completely ignored pricing and approached the subject of economic organization from an entirely different point of view:

The discussion of cost of production in relation to price is in general realistic, even if seriously incomplete, but [Ricardo] had little or no comprehension of the fact that the costs of production are identical with the distributive payments - that the two are simply the prices of productive services under different names. In the chapters dealing with distribution ... there is no approach to the subject in terms of competitive pricing or of supply and demand.⁵²

Ricardo unconsciously started with the idea that society is made up of three classes with three different social functions and distinct sources of income, and thus attempted to picture a social process of division.

B. Theories of Distribution:

In Knight's view, Ricardian system of distribution is a "double dichotomy": "The social product as a whole is first divided between the land on the one hand and the labour-and-capital on the other, and then the labour-and-capital share is divided between its two claimants."⁵³ Ricardo's view of rent as a surplus taken by the landlord, according to Knight, "superficially simplifies the problem to a dichotomy, only one 'share' need be really explained; the other is fixed by subtraction."⁵⁴ Thus, once Ricardo explained rent, the next step is to explain wages and leave profit as a residuum. Therefore, Ricardo's treatment of distribution falls into two parts, the theory of rent and the theory of wages. Ricardo's conception of productive organization, according to Knight, was in a primitive

agricultural form. Knight claims⁵⁵ that Ricardo envisioned a system in which production is directed by capitalists who owned all the product. All production took place in an annual cycle. During the year all classes lived on the produce of the previous year and at the end of the year, when the harvest is in, the capitalist first paid his rent if he used any land superior to that at the margin of cultivation. After paying the rent, the capitalist divided the remaining product into two parts, one for his own consumption and the other for the support of labor the next year. This second part was Ricardo's "capital" advanced to laborers. Rent, thus, was not paid out of capital. Knight concludes that after the rent is paid and capital is advanced to labor as wages, the final "residue" was the capitalist's share or profit.

Now let us see Knight's interpretation of Ricardo's theory of rent and wages in detail.

1. Theory of rent:

Knight seems to give some credit to Ricardo's theory of rent; perhaps being less defective than his theories of profit and wage. Nevertheless, it is still misleading and misdirected as an "analytical theory." Knight believes that in Ricardo, the rent theory "serves the purpose of eliminating an obstacle in the way of a labour theory of value."⁵⁶ Namely, by subtracting rent from the value of the total product, Ricardo got rid of one variable.⁵⁷ Knight nevertheless acknowledges that Ricardo's theory of rent is in some respects the nearest approach in all of the classical writings to what can be considered a real theory of distribution. This "real" theory should be cast in terms of a process of imputation based on final increments. In Knight's view, it is possible to interpret Ricardian theory of rent as a residuum after "capital-and-labor" received their joint share, which is determined by marginal productivity. He wrote that "capital-and-labor viewed as a single, homogeneous factor, are applied to land in successive 'doses,' ... and their remuneration is determined by the product of the last increment, the land receiving the remainder of the

product, if any." But, on closer examination Knight believes Ricardo did not "really grasp the meaning of the incremental principle."⁵⁸ More fundamentally, Knight believes Ricardo:

had no clear or accurate understanding of the principle of diminishing returns even in the limited and one sided connection of the application of other factors to land, and overlooking the undefined and undefinable character of the variables [he] assumed.⁵⁹

Knight gives about nine reasons⁶⁰ why Ricardo did not have clear grasp of the incremental principle and the principle of diminishing returns. However, it is possible to group Knight's reasons under two headings: first, Ricardo did not realize that the rent problem should be handled within the general problem of the maximization of total product, where land enters into the production process in the same way as the other "factors of production." Second, Ricardo's conception of land, labor and capital was faulty and furthermore, he assumed a fixed coefficient production function which did not allow for operation of the "incremental principle." This second reason requires some elaboration.

Ricardo assumed land as a "natural agent," which is not produced, and according to Knight, this is a false conclusion which reflects a false conception of production. Knight believes "no general difference between 'natural resources' and other types of capital goods can be defended. 'Land' is capital merely."⁶¹ Ricardo did not have any real notion of quantity of land. "He never connect[ed] rent with any particular quantity of land, or in general with land at all; it is the capital-and-labour ... applied to the land which yields the rent."⁶² Knight also believes that Ricardo's conception of labor and capital was also false. In Knight's view, "a quantity of labour has meaning only in terms of value, which is the imputed share of product value," and capital is the "productive capacity" of things which is not necessarily different than the productive capacity of labor. Treatment of capital as a factor of production has to be justified by a clear explanation of "quantity of capital" which Ricardo did not provide: "The fallacy of treating labour as a factor would remain, and the treatment of capital in the same way would have to be justified by a clear

explanation of capital quantity, which is certainly not found in the classical writers."⁶³ Ricardo did not have a notion of capital as a measurable quantity. Here, it seems appropriate to mention that Knight disagreed with Marshall's characterization that savings involved "waiting." In Knight's view, the correct term to use is "abstinence."⁶⁴ Furthermore, Knight, it seems, disagreed with Marshall over whether Ricardo's reference to "time" should be interpreted as Ricardo's recognition of capital as a separate quantifiable factor of production in the form of "waiting." Knight wrote:

There is no relation between the quantity of capital used in a society and the length of any "production period." ... Real production is simultaneous with consumption, while the time taken to build up the capital of society is its entire period of historical growth. The production period and service life of concrete things have no definite relation to the quantity of capital.⁶⁵

As far as the production function is concerned, it appears that Ricardo, according to Knight, assumed a fixed coefficient production function: "Ricardo's position, as we must repeatedly emphasize, is that a fixed amount of capital always employs a fixed amount of labour."⁶⁶ We can now understand why Knight claimed that Ricardo "had no clear understanding of the principle of diminishing returns." According to Knight, "a correct formulation ... must distinguish between two entirely different principles with no direct or necessary interconnection." The first principle is the "proportional" law, which states that a given ratio of increase in a variable factor will give rise to a smaller ratio of increase in the total product." Knight believes this principle is axiomatically true but that it affords no standard for selecting and using any particular proportions of the factor. For this, one must use a different principle, the principle of the "incremental" law, which states that equal successive increments of a variable factor yield decreasing increments of product."⁶⁷ In terms of the modern marginalist terminology what Knight calls the proportional law appears to correspond to the fact that on a continuous well-behaved production function, marginal productivity of a variable factor (slope) at a given point is less than the average productivity. What Knight calls the incremental law corresponds to the fact that marginal

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productivity diminishes as new variable factors are applied (i.e., second derivative with respect to labor is negative). In Ricardo, however, marginal changes are automatically ruled out because he assumed a fixed coefficient production function. It also appears that, by implication, variable returns are also ruled out. Because of the nature of the production function, constant returns prevail.

2. Theory of wages and profits:

According to Knight, Ricardian theory of wages and profits "is an amazing tissue of inconsistency and irrelevance." Nevertheless, it is interesting not merely because it illustrates the workings of the best minds, but it also serves to warn against the types of fallacy natural to minds not trained to be on guard against them.⁶⁸ Knight states that "the theory of profit does not get beyond the arithmetic truism of the residual idea ... The theory of wages is in no better case ... The only sense in which the entire treatment gets beyond the narrow and vicious circle of each claimant getting what the other does not get, lies in the idea that labour gets what it 'has to have.' This is not only meaninglessly indefinite, but is in no defensible sense true."⁶⁹

In Knight's view, since the profit is a formal residue, the real question then becomes, "what determines wages?" Knight states that in Ricardo "wages are determined by what is 'required' for the support of the labourer ... that is, we have a 'subsistence theory' of wages."⁷⁰ But the terms "required" and "subsistence," according to Knight, are quite arbitrary. He observes that the subsistence theory of wages rests on the assumption that the capitalist who is also the employer makes the division of the product-less-rent arbitrarily: "The deeper [!] aspect of this theory, that capitalists make the division between themselves and their labourers by arbitrary fiat."⁷¹ Knight is able to discern two explanations of wages, one for the short-run and one for the long-run. The short-run theory of wages, according to Knight, runs in terms of supply and demand. The supply of labor is the laboring population and the demand for labor is the "funds destined for the

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payment of wages," or wages fund. Knight then points to two questions relevant to wages fund: first, why should the wages fund increase? and second, if it does increase, will the effect be to raise wages, or to increase the number of laborers? He claims that on the first issue Ricardo provided no answer. On the second issue, Ricardo gave both alternatives as answers and also added a third view that the answer depends on the relative rates of increase in capital and population. But it is clear, according to Knight, that the rate of increase of capital cannot permanently be greater, so that the final result is an increase in the supply of labor.

The long-run theory of wages, according to Knight, is based on Malthusian population theory. The "classics" and Ricardo made allowances for the subsistence requirements of the workers, in that wages in the long-run are controlled by prevailing standards of living. He concludes that, in spite of these verbal recognitions, their theories are "highly indefinite."⁷²

Knight's understanding of the basic tenets of Ricardian economics can be summarized⁷³ as follows: "The Seven Aberrations":

1. The main source of Ricardo's seven aberrations was his unfortunate conception of value in negative terms - cost; interpreted as "pain" instead of positive terms -- desire of "utility."

2. His second aberration was his "false conception of production" which was the direct outcome of his "pain theory of value." It was "fallacious" to define production in terms of wealth rather than the correct view, production of services. Wealth is a factor of production used in producing services.

3. Putting the first two aberrations together, it then becomes clear why Ricardo considered wealth to be the product of labor. The confusion between production of wealth and services leads to Ricardo's third aberration: the confusion of the economic theory of progress and growth with those activities serving to current satisfaction of individuals.

4. In proving his "wrong" propositions, he followed a "wrong" methodology in that he did not have a clear conception of mutual causality and mutual determination, which manifested itself in the failure to apply the "law of diminishing utility." This principle "could not be understood without at least an elementary grasp of the notion of increments" and he did not have this grasp.

5. Since Ricardo did not understand "the notion of increments," he was therefore "ignorant" of the principles of analysis in mathematical terms. What this means for Knight is that Ricardo was ignorant of the "theory of imputation" via partial differentiation.

6. He was also ignorant of the mathematical technique of maximizing returns subject to constraints.

7. Last, but the most important aberration, was that Ricardo divorced the problem of distribution from the problem of valuation: "The problem of distribution, the sharing of a joint product among an indefinite number of agencies (owners) co-operating in its creation, not merely was not seen as a problem of imputation, but was not approached as a problem of valuation at all." What this means, according to Knight, is that Ricardo did not accept the idea that individuals exchange their services for money and purchase commodities with it, so that there is a continuous interaction between the goods and factors market. Therefore, Ricardo did not see that prices of goods and prices of factors of production are determined by the same law of demand-and-supply. In other words, he "did not grasp the identity of costs with distributive payments and the functional role of the two interacting sets of prices."⁷⁴

III. G. STIGLER ON RICARDO:

George Stigler agrees with Knight on the essentials, even though his tone and language are somewhat muted: he does not label every statement as an "aberration" or a "fallacy," and he acknowledges what he considers to be Ricardo's achievements with

complimentary words such as "extraordinary," "great," etc. He shares the view common to Chicago School that the study of history of economic thought does not contribute directly to the advancement of existing body of theory. History may be interesting as an intellectual curiosity, but in general it is safe to assume that "economics does not have a useful past,"⁷⁵ and an able economist need not concern himself with the history of economic thought.

As to the general character of Ricardo's works, Stigler seems to agree with Schumpeter that Ricardo was a "stern logician and powerful debater" and he was "consistent in dealing with a few basic ideas." In Stigler's view "economics is an engine of analysis and Ricardo with his great powers of abstraction and synthesis was a master analyst ... Measured by the significance of the variables and the manageability of the system, he fashioned what is probably the most impressive of all models in economic analysis."⁷⁶ Ricardo's success is based upon the narrowing down of the subject matter of his investigations and working with few important aggregative variables. He was interested in the value and distribution problem, but his concern was essentially different than that of "neoclassical" economists: "The structure and trend of individual prices, which had called forth some of Smith's best analysis and which became the central concern of neoclassical economics, were simply outside his domain."⁷⁷ In Ricardo, the law of diminishing returns was never applied outside agriculture; he "did not have that instinct for symmetry and generally is now associated with the formal theorist." In Stigler's view, rather than the substance and contents of his theories, it is "his naked logic and pseudo-logic [which] helped to establish a professional frame of mind [and] did much to reduce promiscuous fact-gathering and ad hoc theorizing ... This was the basic 'Ricardo effect'."⁷⁸

A. Ricardo's "93 Per Cent Labor Theory of Value":

Stigler seems to agree with Schumpeter's argument that Ricardo's labor theory of value was "an approximation"; he sardonically calls it "93 per cent labor theory of value." It may be of interest to note that Stigler's argument is based upon a passage which appeared only in the third edition of the Principles:

The reader, however, should remark, that this cause of the variation of commodities [different proportions of fixed capital] is comparatively slight in its effects. With such a rise of wages as should occasion a fall of one per cent. in profits, goods produced under the circumstances I have supposed, vary in relative value only one per cent.; they fall with so great a fall of profits from £ 6,050 to £ 5,995 . The greatest effects which could be produced on the relative prices of these goods from a rise of wages, could not exceed 6 or 7 per cent.; for profits could not, probably, under any circumstances, admit of a greater general and permanent depression than to that amount.⁷⁹

In the above passage, Ricardo claims that changes brought about in the relative value of commodities by changes in wages and profits were very small compared to those brought about by changes in the quantity of labor. Stigler concludes that quantities of labor expended directly or indirectly are not the only determinants of relative values; therefore, Ricardo did not have an "analytical labor theory of value" but on the other hand "there is no doubt that he held what may be called an empirical labor theory of value. Ricardo would have had an "analytical" labor theory of value if he had succeeded in reducing "all obstacles to production to expenditures of labor or assert[ed] the irrelevance or non-existence of non-labor obstacles."⁸⁰ But he did not embrace either view. Nevertheless, according to Stigler, Ricardo had "an empirical labor theory of value." Stigler clarifies what the "analytical" and "empirical" theories are: "An analytical statement concerns functional relationships; an empirical statement takes account of quantitative significance of the relationship."⁸¹ Stigler, then, claims that Ricardo's value theory was "incorrect" because it contained several important deficiencies: 1) it excluded rent from cost, 2) it reduced all capital to labor-embodied and 3) with the exception of cases of constant costs, it ignored demand.⁸²

Stigler claims that Ricardo's theory of value was "a cost-of-production theory, and differ[ed] from Smith's theory only in the exclusion of rents from costs."⁸³ Stigler thus dissented from Schumpeter. As quoted earlier, Schumpeter called Ricardo's labor theory of value "an approximation," but in his opinion this was not a reason for classifying Ricardo's labor theory of value as a cost theory similar to Smith's. Stigler disagrees with the idea that Ricardo in subsequent editions was gradually forced to retreat from the pure labor theory of value (a thesis advanced by J. Hollander and E. Cannan and repudiated by Sraffa) even though "his heart clung to pure labor theory."⁸⁴ He also disagrees with the claim that even though Ricardo's theory was wounded by admission of unequal degrees of capitalization, he clung to labor theory because of the qualitative importance attached to labor in determining values (Schumpeter's, O'. St. Clair's⁸⁵ argument).

Stigler attempts to answer a question posed by Schumpeter. Schumpeter, as quoted above, wrote that if Ricardo really had a cost theory of value akin to Smith's, "it would be difficult to see what it was he fought for with so much insistence and what the ensuing controversies were about."⁸⁶ Stigler attempts to answer Schumpeter's question as follows:

One is inclined to reply that there was no controversy, and that the controversy was about something else. There was in fact no active controversy over the so-called labor theory in Ricardo's lifetime. The main points of controversy were different. First, Ricardo eliminated rent from the cost of production, which was not in keeping with popular views. Second, he appeared to deny (but did not do so) that supply and demand governed value ... Finally, the endless dispute between Malthus and the Ricardians concerned the measure of value, not its causes.⁸⁷

Apparently satisfied with the foregoing explanation of the misunderstandings about Ricardo's theory of value, Stigler concludes that "if a theory once acquires an established meaning, each generation of economists bequeaths this meaning to the next, and it is almost impossible for a famous theory to get a fresh hearing."⁸⁸ Stigler feels his interpretation provides a "fresh hearing." He states that "Ricardo had a cost-of-production theory of value" and "the only economists to argue at some length that Ricardo had a cost-of-

production theory of value ... have been Marshall, Diehl, and Viner -- but who could wish for more comforting allies."⁸⁹

B . Theories of Distribution

According to Stigler, Ricardo's contributions to economic theory reside in his masterly synthesis of the theories of population and rent into a general theory of value and distribution. The key elements of his system were the theory of population, the rent, the subsistence wage, and the measure of value.

Stigler claims that in the theories of population and rent "Ricardo was chiefly a borrower, and he did not improve upon either theory in any basic respect."⁹⁰ It is the combination of these doctrines that made his system truly original. The outlines of Ricardo's system emerged in his Essay: the theory of rent and the dominant influence of diminishing returns in agriculture upon the rate of profit. Ricardo's theory of rent, according to Stigler, was similar to those advanced by West and Malthus. Ricardo assumed that as population increases there will be a resort to inferior land and/or intensive cultivation of existing lands. Ricardo's argument in the Essay rests upon four propositions:

First, Ricardo states that in the domestic production of corn there are diminishing returns to "composite dose" of capital-and-labor. His second proposition is that the return to this dose of capital-and-labor is equal to the marginal product. Third, "the return on capital in agriculture fixes the rate of return that must be obtained in other industries." Finally, "the rent of land will be equal to the total product minus the amount of agricultural capital times its profit rate."⁹¹ In Stigler's view, Ricardo's system in the Essay is not a complete system because even though the system determines the division of total product between the landlords and others, it does not determine between capitalists and laborers. The completed system required two more elements: the subsistence theory of wages and the measure of value, and these elements were presented in the Principles. Ricardo,

according to Stigler, has shown some awareness in the Principles that subsistence requirements of labor should not be assumed to be absolutely fixed; "he intuitively felt that there may be a possibility of a steady upward movement of the natural [wages] rate ... but did not know how to incorporate this into his theoretical system."⁹² Furthermore, he also knew that his measure of value was imperfect but he proceeded anyway.⁹³ The problem he wanted to solve was how to distribute the total produce among various productive factors. At any given time, in the agricultural sector the value of total produce (corn) was equal to quantity of corn produced times the price of corn in terms of the measure of value. Each worker received a subsistence wage. Total wage bill was equal to wage rate times the number of workers employed. Total profit was what remained after deducting the total wage bill from the value of total produce. Since pricing was done at the margin of cultivation, rent was equal to zero. As population increased and capital accumulated, inferior lands were taken into cultivation. Using the same amount of workers on the inferior lands, total quantity produced would decline. Therefore, price of corn must rise because the quantity of labor per bushel has risen. Thus, Ricardo reached the general conclusion that with the growth of population the rate of wages rises, the rate of profit falls (being a residue), and aggregate rents rise. Stigler notes that Ricardo's inverse profit-wage theorem is "strictly dependent on his measure of value,"⁹⁴ because according to Stigler:

the product of a given quantity of capital and labor, be it large or small, always has the same value; hence the larger the value of labor (wages), the smaller will be the value of capital (profits). This is not equivalent to the proposition that a rise in wages will lead to a fall in the share of total income received by capitalists, for Ricardo had no theory of the share of total income going as rent.⁹⁵

It must be noted that Stigler's argument that Ricardo's inverse profit-wage theorem to be strictly dependent on his measure of value is diametrically opposed to one advanced by Samuel Hollander.

In conclusion, it must be said that Stigler seems to believe that Ricardo's main theoretical theme involved the description of evolution in time of the economy toward a stationary state. One of Ricardo's most significant conclusions was the natural tendency of

profits to fall. He did not pay attention to the final stationary state itself, but he argued that: "depending on the relative strengths of technological progress and diminishing returns, the dismal stationary state lies near or far in the future -- but in any case, it lies farther in the future with free trade in corn!"%

Notes

1. J. A. Schumpeter, History of Economic Analysis (hereafter HEA), Oxford University Press, N.Y., 1954.
2. Ibid., p.474.
3. Ibid., p.472.
4. Ibid., p.471.
5. Ibid., p.472.
6. Ibid.
7. Ibid., p.473.
8. Ibid., p.474. Italics in original.
9. Ibid., p.592. Italics in original.
10. Because of the time element, Schumpeter finds a link between Ricardo and Bohm-Bawerk, that the latter couched his theory of capital in terms of different time periods. See the discussion of Knight of this matter below, claiming that "the production period... has no definite relation to quantity of capital."
11. Ibid., p.594.
12. Schumpeter is referring to J. Hollander and Cannan. (See, Sraffa, Works, I, p.xxxvii)
13. Ibid., p.594. Italics added: the question Schumpeter posed is a very valid one, and has to be answered in a serious and meaningful way. See the answer of G. Stigler below.
14. For an exact opposite of this interpretation see below Samuel Hollander's assertion that Ricardo had a "sophisticated" demand and supply theory.
15. This accusation, that Ricardo was "completely blind" to importance of demand-and-supply theory, seems to contradict Schumpeter's earlier assertion that Ricardo thought market prices were regulated by demand and supply (p.592, HEA). Logically, then, he could not have been blind to nature of demand-and-supply framework. According to M. Dobb, Ricardo rejected the demand-and-supply system of Smith consciously, as a vehicle of determining natural value of commodities and as a framework of determining distributive shares. (Theories of Value and Distribution, Cambridge University Press, 1973, pp 119-20.)
16. Schumpeter, HEA, p.601.
17. Ibid.

18. "Their value is wholly independent of the quantity of labour originally necessary to produce them, and varies with the varying wealth and inclinations of those who are desirous to possess them," (Ricardo, Works, I, p.12.)

19. For the development of utility perspective in relation to Ricardo's classification of goods according to "returns," see John P. Henderson, "History of Thought in the Development of the Chicago Paradigm," Journal of Economic Issues, Vol X, No.1, March 1976, especially pages 137-138; where Henderson claimed that the value problem for Ricardo was made up of three classes of goods: rare goods, agricultural goods, which was Ricardo's special case where diminishing returns was operative leading to increase in cost as demand rose, and all other industries where costs were constant. "In order for the utility theory of value to become operational as an analytical proposition, it was necessary for the law of diminishing returns to become generalized from the particular case of land (Ricardo) to every case in which there existed some factor input with a limited quantity." (p.138.)

20. Schumpeter, HEA, p.569.

21. Ibid., p.673.

22. Ibid., p.675.

23. Ibid., p.677.

24. Ibid., p.569.

25. Schumpeter points out that the term "Comparative Statics" was first used by F. Oppenheimer in 1916 in his work "Wert und Kapitalprofit" (HEA, p.965)

26. Schumpeter, HEA, p.494, Italics in original.

27. William Stanley Jevons, The Theory of Political Economy, 2nd ed., R. D. Collison Black, ed. (Baltimore: Penguin, 1970), p.72.

28. Schumpeter, HEA, p.602.

29. Ibid.

30. Ibid., pp.677-678n 89.

31. Ibid.

32. Ibid., p.674n 75.

33. For example Condillac wrote that "the very fact that an exchange takes place is proof that there must necessarily be profit in it for both the contracting parties; otherwise it would be not made. Hence, every exchange represents two gains for humanity." (Bastiat quoting Condillac. Frederic Bastiat, Economic Harmonies (Princeton, N.J., D. Van Nostrand, 1964), p.xxv, mentioned in E. K. Hunt, History of Economic Thought, 1976, p.157. Also: "Exchange is political economy ... it is society itself, for it is impossible to conceive of society without exchange or exchange without society." Frederic Bastiat, Ibid., p.66.

34. Schumpeter, HEA, p.567.
35. Frank H. Knight indicates that Menger may be preceded by Jevons in the "discovery" of the theory of diminishing utility but "it is to the everlasting credit and renown of Menger, in contrast even with his two famous contemporaries [Jevons, Walras] that he not only grasped the utility principle ... but also reiterated the principle that costs are simply ... derived from or reflect the value of some final consumption good; and that this value, in turn, is that of the 'need satisfaction' dependent upon a small portion or increment (Teilquantitat) of the final good in question." Knight adds that this explains "all economic valuation" and "logically covers all there is to say about distribution." Introduction to Principles of Economics by C. Menger, The Free Press, Glencoe, Illinois, 1950 p.11 and p.15.
36. Schumpeter, History of Economic Analysis, p.590. Reference is made to G. J. Stigler's article in the Quarterly Journal of Economics August 1947, p.647: "Stuart Wood and the Marginal Productivity Theory."
37. Ibid., p.543. Schumpeter's reference is to Knight's article "The Ricardian Theory of Production and Distribution," The Canadian Journal of Economics and Political Science, p.6.
38. Ibid., p.543n.
39. Ibid., p.568. Also p.680: "They had to consider the problem separately...instead of solving it on the ground floor of the main structure."
40. Ibid., p.473.
41. John P. Henderson, "The History of Thought in the Development of the Chicago Paradigm," Journal of Economic Issues, Vol.X, No.1, March 1976. p.140.
42. Frank H. Knight, "The Ricardian Theory of Production and Distribution," Parts I-II, The Canadian Journal of Economics and Political Science, Vol.I, (February and May 1935); pp.3-25 and 171-196. Knight's article opens with the following sentence: "On the assumption that the primary interest in the 'ancients' in such a field as economics is to learn from their mistakes, the principal theme of this discussion will be the contrast between the 'classical' system and 'correct' views," (p.3.)
43. Ibid., p.185.
44. Ibid., p.4.
45. Ibid., p.3.
46. Ibid., pp.176-177, Italics added.
47. F. H. Knight, The Economic Organization, Augustus M. Kelly Inc., 1951, p.140.
48. F. H. Knight, "The Ricardian Theory of Production and Distribution" p.177.
49. Ibid.

50. As will be noted, this "empirical" and "analytical" distinction is often made by Knight and also by Stigler. By "analytical relations" they mean "functional relations." Analytical theories are assumed to be valid and universal as opposed to empirical theories, which are limited and took only the quantitative aspect of the relationship into consideration. See below, Stigler's interpretation.

51. Knight, "The Ricardian Theory of the Production and Distribution," p.177.

52. Ibid., p.173.

53. Ibid., p.176.

54. Ibid., p.177.

55. Ibid., pp.177-188.

56. Ibid., p.178.

57. This position is shared by Schumpeter.

58. Ibid., p.179.

59. Ibid., p.181.

60. Knight's reasons are interconnected. He mentions: Ricardo did not set up his problem as a maximization problem; he treated capital-and-labor as a homogeneous factor; he treated land as homogeneous; he had no real notion of proportions between capital-and-labor and land; his increments were enormously large, the idea of using new capital and taking up more land into cultivation as it became necessary was not to his credit; his treatment of agricultural improvements was inconsistent with varying proportions of capital and land; he did not realize the entire dosing of capital-and-labor could have been reversed; he did not have clear understanding of the principles of diminishing returns. (Ibid., pp.178-183.)

61. Ibid., p.19.

62. Ibid., pp.179-180.

63. Ibid.

64. Ibid., p.24.

65. Ibid., p.25n29.

66. Ibid., p.174.

67. Ibid., p.182.

68. Ibid., p.185.

69. Ibid.

70. Ibid., p.187.

71. Ibid., p.190. Italics added.
72. Ibid., p.194.
73. Ibid., p.3-8.
74. Ibid., p.7.
75. George J. Stigler, "Does Economics Have a Useful Past," History of Political Economy, Fall 1969.
76. George J. Stigler, "The Ricardian Theory of Value and Distribution," Journal of Political Economy, Vol.LX, June 1952, reprinted in Essays in the History of Economics, University of Chicago Press, 1965, p.197. (References are to the Reprint).
77. Ibid., p.185.
78. Ibid., p.197.
79. Ricardo, Works, I, p.36. The same passage is cited by Stigler, "Ricardo and the 93 Per Cent Labor Theory of Value," The American Economic Review, Vol. XLVIII, (June, 1958); reprinted in Essays in the History of Economics. (References are to the Reprint), p.332.
80. Stigler, Essays in the History of Economics, p.333.
81. Ibid., p.341.
82. Ibid., p.333.
83. Ibid., p.332.
84. Alexander Gray, The Development of Economic Doctrine, (New York: Longmans, Green and Company, 1931), p.177. Quoted by Stigler (Ibid., p.328).
85. Oswald St. Clair, A Key to Ricardo, Augustus M. Kelley, N. Y. 1965, p.40: "Colonel Torrens, expressed the view that Ricardo's 'modifications' amounted, not to a mere qualification, but to a positive refutation of the doctrine that value is in proportion to quantity of labour ... But Ricardo did not alter his opinion..." See also p.348.
86. Schumpeter, History of Economic Analysis, p.594.
87. Stigler, Essays in the History of Economics, pp. 341-342.
88. Ibid., p.342.
89. Ibid., p.328.
90. Ibid., p.185.
91. Ibid., p.187.
92. Ibid., p.172.

93. Ibid., p.189.

94. Ibid., p.191.

95. Ibid.

96. Ibid., p.193. Note that this interpretation (that Ricardo's main theme involved the description of the evolution of the economy toward a stationary state) is essentially shared by Blaug (Economic Theory in Retrospect, 2nd edition), but not by Sraffa, Roncaglia, S. Hollander. Hollander claimed that the inverse profit-wage relation played the most important role in Ricardo. See S. Hollander, Economics of David Ricardo, Toronto: University of Toronto Press, 1979 p.12: "To single out the theorem relating to a declining rate of return on capital is to exaggerate the import of a particular application of the basic theory ... Ricardo paid more careful attention to the general principle of the inverse wage-profit relationship than to the particular issue of a falling profit rate."

CHAPTER SEVEN: SRAFFA ON RICARDO

Piero Sraffa (1898 - 1983) is considered to be one of the most influential economists of modern times, and having worked at least 27 years on his superlative edition of Ricardo's works is an authority on Ricardo. Sraffa's interpretation of Ricardo is two-fold: on the one hand, we have Sraffa's interpretation of the economics of Ricardo, put forth in the introductions of The Works and Correspondence of David Ricardo. On the other hand, we have Sraffa's own work, The Production of Commodities by Means of Commodities, based on his vision of Ricardo, which is inspired by what he calls "a method devised by Ricardo."¹ The first section investigates Sraffa's interpretation of some aspects of Ricardo's economics contained in the introductions to the Works. The second section focuses on Sraffa's own work only as far as it relates to his interpretation of "a method devised by Ricardo" and to his interpretation of the "standpoint ... of the old classical economists"² and points to some of the issues Sraffa's work raises.

A. Sraffa's Edition of the Principles

Sraffa's everlasting contribution to Ricardo scholarship is his magnificent edition of the collected works of Ricardo. In referring to Sraffa's edition, it has been claimed that "there is nothing to match it in scale or in craftsmanship in the history of economic scholarship."³ Stigler, immensely impressed by the quality of Sraffa's edition, wrote:

Sraffa's Ricardo is a work of rare scholarship. The meticulous care, the constant good sense, and the erudition make this a permanent model for such a work; and the host of new materials seem to suggest that Providence meets half-way the deserving scholar ... Sraffa's edition seems to breathe precision ... Aside from the introduction to Volume I, Sraffa's editorial prefaces and notes serve an informative, rather than an interpretive, function. This severe self-abnegation was wise: the facts are relatively timeless but even the best analysis of a predecessor will change with the

interests and knowledge of the science. The editorial notes are superb. They seem unbelievably omniscient; they are never obtrusive or pedantic; and they maintain unfailing neutrality. Their presence not only clarifies much of Ricardo's work but also provides a vast fund of information on the economics of the period.⁴

In 1928, upon Keynes' initiation, the Royal Economic Society entrusted the task of preparing an edition of Ricardo's works to Sraffa. Twenty-seven years later, publication of volumes I - X was completed in 1955, and Vol. XI, "General Index," was published in 1973. In 1948 Maurice Dobb joined Sraffa and assisted him with the editorial work and "associated in the writing of the Introductions to volumes I, II, V, and VI."⁵ Apart from all of its technical merits as described by Stigler, Sraffa's edition provides information about the precise identity of all persons to whom Ricardo referred and information about socio-political and economic events of the time. Sraffa's edition makes it possible to read all three editions of the Principles simultaneously. In Vol II of the Works, by giving Malthus' text (Principles of Political Economy) at the top and Ricardo's Notes at the bottom, Sraffa's edition contributes to better understanding of the two economists' reasonings. Most of those published in the four volumes of Letters (vols. VI-IX) appeared for the first time. These letters provide new and valuable information as well as clues about Ricardo's style and mental habits. Among the letters published the first time, the letters of Malthus to Ricardo and the "Mill-Ricardo papers" proved to be extremely revealing about the respective theories of these economists as well as their modes of reasoning and mental habits. Finally, Ricardo's unfinished paper on "Absolute Value and Exchangeable Value" appeared for the first time in Sraffa's edition.

B. Sraffa's Method of Interpretation

Sraffa's interpretation of Ricardo, as put forth in his introduction to Vol. I of the Works, concentrates almost exclusively on Ricardo's theory of value. Sraffa also briefly discusses Ricardo's basic distribution scheme in terms of a corn model, but his discussion is carried out only in a limited context; thus, it should not be construed as a full assessment

of Ricardo's theories of distribution. Sraffa's discussion of the corn model is confined to an examination of the underlying thinking process vis-a-vis the changes in value theory which Ricardo made in the successive editions of the Principles. Contrary to Hollander's interpretations, Sraffa's relatively short introduction does not constitute a comprehensive assessment of the economics of Ricardo. Sraffa confines his interpretation to what he considers to be the heart of Ricardo's system -- the theory of value. A part of Sraffa's introduction is devoted to editorial clarification of the issues. Some of these are only indirectly related to Ricardo's analytical system, such as the anomalies in the numbering of the sections and pages in the First Edition of the Principles, etc. Many such clarifications are informative rather than interpretive and are carried out with "unfailing neutrality."

Sraffa's method of interpretation differs from all previous interpretations. Sraffa, with the advantage of his scrutiny of every single letter, speech and document included in the Works, was able to give a chronological development of Ricardo's thoughts, his modifications, turning points in his thinking process, his concessions, etc. He accomplishes this by examining the changes Ricardo made in the successive editions of the Principles, and by scrutinizing his private correspondence, (a large part of which were not previously available). He hoped to uncover clues which may be valuable in constructing the underlying thinking process. By establishing a logical sequence of his theories based on Ricardo's documented, intellectual interactions with others, Sraffa hopes to contribute to a better understanding of the nature and contents of his theories. Establishing the genesis of Ricardo's theory of value is indeed a crucial issue; it has profound implications for any evaluation of the scope of his analytical system. Ricardo's correspondence provides access to his intellectual world, and at the same time establishes the background of socio-political events and historical developments which shaped his reasoning.

Sraffa's central concern is Ricardo's theory of value which he obviously considers the key to the understanding of Ricardian economics, and his mode of investigation reveals

important information about the circumstances and conditions of the time as well as Ricardo's mental habits, ambitions, and aspirations. For example, with the information made available for the first time from the Ricardo-Mill correspondence, Sraffa is able to disagree with the view first advanced by C. F. Dunbar,⁶ (accepted and promoted by Marshall)⁷ that Ricardo's book was not written for the public, but was written as a statement of opinions made for his own purposes and for the few statesmen and businessmen with whom he associated. Sraffa points out that

the Ricardo-Mill correspondence now makes it certain that this opinion is unfounded, and that from the very beginning the idea of publication was present in Ricardo's mind, although from time to time he was beset by doubts as to his ability to achieve his object ... A typical statement is the following which he made in a letter to Mill when he was in the middle of composition in November 1816: 'I have an anxious desire to produce something worth publishing, but that I unaffectedly fear will not be in my power.'⁸

Sraffa is able to discern passages in the Principles which carry Mill's tone and style and clarify the exact nature of Mill's contributions to the Principles. According to Sraffa, Mill organized the sections and changed some sentences and phrases grammatically, translated the passages quoted from Say, and most importantly, Mill compiled Ricardo's Index. Sraffa claims that the method and the clarity of expressions in The Index of the Principles "is strikingly similar to the Index of [Mill's] History of British India, published later in 1817."⁹ Sraffa, by comparing the entries in the Index and the corresponding passages in the main body of the text, concludes that: "It is noticeable that several entries exhibit misunderstanding of the text or radical change of emphasis such as to suggest that they cannot be by the author of the book."¹⁰ Sraffa in effect cautions the later interpreters about the reliability of the index as an indication of Ricardo's intentions.¹¹ Finally, Sraffa's clarifications of the circumstances under which the Principles were written,¹² the difficulties with the printing¹³ and the last minute changes,¹⁴ etc., perhaps explain "the mechanically disconnected"¹⁵ appearance of the whole work.

C. Ricardo's Theory of Value

According to Sraffa, Ricardo had a labor-embodied theory of value. He developed his labor-embodied theory from fragmentary elements first established in the Essay. Ricardo stated his theory in its purest form in the first edition of the Principles, and he modified and refined it in the subsequent editions; however, his theory of value was in essence and emphasis the same throughout. Ricardo placed his theory of value and distribution in contradistinction to the theories of Smith. He was preoccupied with the subject of invariable measure of value and struggled with it until his last days. He was aware of the difficulties inherent in finding an actual commodity which was invariable; thus, he was concerned with establishing the conditions which a commodity would have to satisfy in order to be invariant in value. Sraffa puts Ricardo's search for an invariable measure of value into perspective and claims that the difficulties of invariable measure of value are a reflection of the difficulties involved in dealing with the subjects in the way Ricardo had.

1. Genesis of Ricardo's Theory of Value: Corn Theory of Profits.

Following his general method, Sraffa considers a survey of elements already present in the Essay as a preliminary to understanding changes Ricardo made in successive editions of the Principles:

By far the most perplexing as well as most extensive changes in successive editions of the Principles occur in the first chapter ["On Value"]. A necessary preliminary to a study of these changes is a survey of the formation of the new theory of value out of fragmentary elements of such a theory which are to be found in the Essay on the Influence of a Low Price of Corn on the Profits of Stock.¹⁶

The basic principle in the Essay, as well as in Ricardo's letters of 1814 and 1815 is that the "profits of the farmer regulate the profits of all other trades." This principle, according to

Sraffa, disappears due to Malthus' criticisms¹⁷ in the Principles, and the more general proposition that the productivity of labor on the no-rent land is the principle determinant of the general rate of profit continues to occupy a central position.¹⁸ Sraffa conjectures a plausible explanation for the determining role of agricultural profits: in the agricultural sector, a single homogeneous commodity, corn, works both as input and output, so that rate of profit can be calculated in terms of a physical product independently of valuation.¹⁹ Sraffa explains that in agriculture the same commodity (corn) forms both the capital (seed and subsistence wages for workers) and the product. Profit is equal to total product minus the capital advanced, which is also the determination of the profit ratio $= \frac{\text{Profit}}{\text{capital}}$:

The rational foundation of the principle of the determining role of the profits of agriculture, which is never explicitly stated by Ricardo, is that in agriculture the same commodity, namely corn, forms both the capital (conceived as composed of the subsistence necessary for workers) and the product; so that the determination of profit by the difference between total product and capital advanced, and also the determination of the ratio of this profit to the capital, is done directly between quantities of corn without any question of valuation. It is obvious that only one trade can be in the special position of not employing the products of other trades while all the others must employ its product as capital. It follows that if there is to be a uniform rate of profit in all trades it is the exchangeable values of the products of other trades relatively to their own capitals (i.e. relatively to corn) that must be adjusted so as to yield the same rate of profit as has been established in the growing of corn; since in the latter no value changes can alter the ratio of product to capital, both consisting of the same commodity.²⁰

Sraffa admits that the argument was never stated by Ricardo as such. But he claims that a letter from Ricardo to Malthus dated June 26, 1814, and a letter from Malthus to Ricardo dated August 5, 1814, reveal that an argument along these lines was taking place between them.²¹ The above passage is Sraffa's conjecture as to what could have been "the rational foundation" of the principle of determining role of agricultural profits and not a statement of Ricardo's final theory of profit. Sraffa supports his conjecture by pointing out that the well-known Table of the Essay "shows the effects of an increase of capital, both capital and

the 'neat produce' are expressed in corn, and thus the profit per cent is calculated without need to mention price."²²

Sraffa's interpretation of the "rational foundation" of the principle for agricultural profit regulating profits in other sectors means that the ratio of profits to wages (capital advanced) in agriculture is determined by the conditions of production. Since in such a model wages are assumed to be fixed by subsistence and technology is assumed to be unchanging for the period under consideration, it follows that the only way to increase agricultural profits is to extend the margin of cultivation. As far as the other sectors are concerned (e.g. the manufacturing sector), they have to change their prices until the uniform rate of profit is established. In other words, this model, if the interpretation given by Sraffa reflects Ricardo's thinking (at the cost of considerable simplification), explains how the profit rate is determined without having to establish a standard. This standard is independent of the rate of profit in which the three aggregates -- total product, wages and capital advanced -- may be expressed.

According to Sraffa, there was another theme which ran parallel in the development of Ricardo's thought. Ricardo in 1814 generally accepted the view that a rise in corn prices, by causing increase in wages, would lead to increases in other prices.²³ According to Sraffa, Ricardo did not regard this view as inconsistent with his theory of profit as long as he expressed it in primitive agricultural form. But later, realizing the obscurity generated by the admission of changing prices to the simple inverse relation between wages and profits, he repudiated the accepted notion that the price of corn regulates the price of commodities: "It has been thought that the price of corn regulates the prices of all other things. This appears to me to be a mistake."²⁴

Sraffa claims that all the forementioned elements of the Essay, initiated by constant and consistent criticisms by Malthus about the simplistic and unrealistic nature of the one commodity model, were utilized in the chapter on value in the Principles to form a general theory of value and distribution. According to Sraffa, the turning point in the transition

from the Essay to the Principles was reached when, at the end of 1815, Ricardo (having started to work on the Principles), wrote to Mill: "I know I shall be soon stopped by the word price."²⁶

2. Theory of Value, Changes in the Successive Editions:

Before going into the details of Ricardo's theory of value, perhaps it should be mentioned that in Sraffa's view, with the adoption of a general theory of value, it became possible for Ricardo to investigate the "laws that regulate distribution of the produce of earth among classes which procure its production" without the necessity of starting from a specific branch of production: agriculture. In Sraffa's view, Ricardo substituted labor for corn as the quantity in terms of which total product, wages and surplus are expressed: "It was now labour, instead of corn, that appeared on both sides of the account -- in modern terms, both as input and output." This way, "the rate of profits was no longer determined by the ratio of the corn produced to the corn used up in production, but, instead, by the ratio of the total labour of the country to the labour required to produce the necessaries for that labour."²⁷ The determining role of agricultural profit for all sectors disappeared and was replaced by the productivity of labor on land which pays no rent. Rent being zero, the difference between the value of output in terms of labor and the subsistence wage (measured in terms of labor time required to produce the necessaries) was the residual surplus. Stated differently, substituting labor for corn, profit conceived as the surplus (or the residue) was equal to the difference between the total labor of the country and the amount of labor required to produce subsistence for the labor force. In terms of the Essay this meant "the proportion of production to consumption necessary to such production"²⁸ both expressed in terms of labor.

As quoted earlier, Ricardo was opposed to the view that the price of corn regulated the price of all other commodities but he did not know then how to connect this to a general

theory of value. It was only after Ricardo started to work on the Principles and wrote to Mill: "I know I shall be soon stopped by the word price," that he began to think about causes which affect the value of money and the value of commodities. According to Sraffa, Ricardo treated money as a commodity like any other; thus, a change in wages could not alter the price of commodities since in the absence of importation of gold, a rise of wages would affect the owner of the gold mine as the other industries: "It was the relative conditions of production of gold and of other commodities that determined prices, and not the remuneration of labour." This is the beginning of the discovery of the "curious effect" for Ricardo; "the curious effect which the rise of wages produces on the prices of those commodities which are chiefly obtained by the aid of machinery and fixed capital."²⁹

Sraffa is the only economist included in this study besides Marx who pointed out the importance of the discovery of the "curious effect" for Ricardo. Marx, as will be remembered, called it "a nice point." Sraffa explains that:

Ricardo was not interested for its own sake in the problem of why two commodities produced by the same quantities of labour are not of the same exchangeable value. He was concerned with it only in so far as thereby relative values are affected by changes in wages.³⁰

When Ricardo studied the matter closely, he found that the rise in wages produced different effects on the prices of commodities which contained different proportions of capital in them. Primarily, when wages increased in a sector of society in which a relatively large amount of fixed capital was used, that sector experienced a fall in prices, because increased wages caused decline in profit, thus pulling prices down. Conversely, an increase in wages resulted in a positive impact on the prices of commodities produced with relatively larger amounts of variable capital. Sraffa points out that Ricardo announced his discovery "triumphantly" because this conclusion would mean that "not only was it false that a rise of wages would raise the price of every commodity (as 'Adam Smith, and all the writers who

have followed him' had maintained that it would do), but on the contrary, it caused the prices of many commodities to fall. The result of which he stressed as the 'importance to the science of political economy,' although it accorded so little 'with some of its received doctrines.'"31

As is well known, Ricardo in the Third Edition of the Principles introduced additional "causes," besides the labor-embodied which regulated the relative values of commodities. These additional causes are sometimes called the "modifying principles," the idea that unequal degrees of capitalization in different sectors affect values differently. The introduction of these additional causes puzzled some, and others interpreted it as a contradiction, since they thought Ricardo was shifting away from the pure labor theory of value into something resembling a cost of production theory similar to that of Smith.³³ Schumpeter wrote: "So the murder is out."³⁴ Sraffa claims ³⁵ that the view that Ricardo steadily retreated under pressure from his critics in subsequent editions away from the theory of value presented in the first edition, was disseminated by J. Hollander³⁶ and accepted by Cannan. It appears that if Sraffa's interpretation of the nature and the significance of Ricardo's discovery of the "curious effect" is accepted; it follows that there was no retreat. Ricardo, at least, did not seem to see it as a retreat as evidenced by the fact that he announced his "curious effect" so triumphantly. But Sraffa takes strong issue with such interpretations and points to further evidence to support his claim that there really was no retreat by Ricardo.³⁷ Sraffa explains that the evidence indicating a weakening of Ricardo is based on two changes he made in the third edition. The first one was the deletion of the passage in which Smith was criticized for having limited the application of the principle of value to the "early and rude state of society," and the second change was that the statement that the exchangeable value "depends solely" upon the quantity of labor realized in a commodity is replaced with "depends almost exclusively." Sraffa, with the aid of a newly discovered letter from Ricardo to J. Mill (December 28, 1818), shows that the reason Ricardo dropped his criticism of Smith was that Torrens had misrepresented

Ricardo's view on the matter. In order to avoid such confusion, Ricardo thought it best to withdraw the passage, not because he was shaken in his position.³⁸ So far as the "depends almost exclusively" is concerned, Sraffa shows that it is again due partially to a criticism by Torrens (based on a misunderstanding) and partially due to a change in the choice of standard of measure of value from the first to third edition. This change permitted a rise of price as a result of a rise of wages in respect to commodities produced with no fixed capital.³⁹ We now turn to the issue of measurement.

3. Invariable Measure of Value

Sraffa investigates the development of this concept of invariable measure of value and tries to put Ricardo's efforts to find an invariable measure of value into perspective. Sraffa claims that the subject of invariable measure of value was extremely important to Ricardo and that he struggled with it until he died. Although the section on invariable measure of value (Chapter I, Section VI) appeared the first time in the third edition, the idea was present in the earlier editions. Sraffa claims that the idea of invariable measure of value initially appears in a complementary form of "absolute value" in the first edition and later Ricardo used the term interchangeably with the term "real value" in the third edition. Furthermore, Sraffa shows that the concept of "invariable measure" emerges from time to time in his letters, especially those written after 1820 and takes on greater definition in his last paper on "Absolute Value and Exchangeable Value." As explained below in greater detail, Ricardo's interest in the subject of invariable measure of value was not, according to Sraffa's interpretation, purely an intellectual exercise; it was closely tied to his theory of profit. Ricardo's interest in the invariable measure of value was motivated by his desire to discover a device that would measure the relative changes in value unambiguously. Ricardo believes that relative changes in the value of commodities "could be effected only by comparing them one after another with some invariable standard measure of value,

which should itself be subject to none of the fluctuations to which other commodities are exposed." Ricardo adds:

Of such a measure it is impossible to be possessed, because there is no commodity which is not itself exposed to the same variations as the things, the value of which is to be ascertained; that is there is none which is not subject to require more or less labour for its production.⁴⁰

Sraffa claims that Ricardo was not interested in finding an actual commodity which would accurately measure the value of corn or silver at all times. He was interested in finding the conditions which a commodity would have to satisfy in order to be invariant in value.⁴¹ In the first and the second edition of the Principles, the main quality which a commodity should possess in order to be invariable in value was the requirement that it at all times and under all circumstances have precisely the same quantity of unassisted labor to produce it. By "unassisted," Ricardo meant, according to Sraffa, unassisted by fixed capital.⁴² In the third edition Ricardo realized that the exceptions he had already established in the determination of value, namely, different proportions and durabilities of fixed capital or different times it takes to bring commodities to market are actually applicable to the problem of finding an invariable measure itself. Accordingly, Ricardo changed his standard. The standard he adopted in the third edition was money "produced with such proportions of the two kinds of capital as approach nearest to the average quantity employed in the production of most commodities."⁴³ But this statement of invariable measure of value on its own is still vague. Sraffa explains that in his letters to McCulloch, Ricardo suggested that all the exceptions to the general rule (his modifying principles) could be reduced to "one of time." Sraffa interprets this as follows: Ricardo's modifying principles -- different proportions of fixed and circulating capitals, different durabilities of fixed capital, or differences in time it takes to market commodities - - "could be reduced to terms of labour employed for a longer or a shorter time."⁴⁴ In other words, differences in the organic composition of capitals (using Marx's terms), within the labor-embodied perspective, are reduced to differences in

the length of time labor is applied (or embodied). Sraffa wrote that in his final paper, Ricardo restated his position as follows:

A commodity produced by labour employed for a year is a mean between the extremes of commodities produced on one side by labour and advances for much more than a year, and on the other by labour employed for a day only without advances, and the mean will in most cases give a much less deviation from truth than if either of extremes were used as a measure.⁴⁵

Thus, a commodity produced by labor employed for a year was his final invariable measure of value.

When Ricardo changed his measure between the first and the third editions (in the second edition Ricardo did not change his position), he had to change some of his statements, the accuracy of which depended upon his measure. If Sraffa's interpretation is correct, then some of Ricardo's key statements in different editions should be interpreted with the measure applicable to them. For example, a statement which appeared in the first edition that "commodities may be lowered in value in consequence of a real rise of wages, but they never can be raised from that cause"⁴⁶ makes sense only in terms of the measure adopted in the first edition -- money produced by unassisted labor. The reason being that, in Ricardo's thinking, fixed capital enters into the production of some commodities but does not enter into the production of gold (or whatever the money is), and value refers to "absolute value" since Ricardo used this term in the first edition.

According to Sraffa, the effects on value of different proportions and/or durabilities of capital can be regarded from two distinct aspects. First, differences in relative value may be due to the usage of different quantities of capital even though equal quantities of immediate labor may be used. Second, a rise of wages causes a change in their relative value. Sraffa maintains that Ricardo, in the first edition, deals exclusively with the second effect. Sraffa claims that Ricardo was aware of the first effect since he mentioned it a few times in the second and third edition as incidental to discussion of variations in value. Nevertheless, Sraffa believes Ricardo was preoccupied with the effect of changes in wages

on value, the idea which dominated his theory of profits.⁴⁷ One of Sraffa's novel interpretations is that when Ricardo investigated the effects of the division of national product (changes in wages and profits) on value he was troubled by the fact that

the size of this product appears to change when the division changes. Even though nothing has occurred to change the magnitude of the aggregate, there may be apparent changes due solely to change in measurement, owing to the fact that measurement is in terms of value and relative values have been altered as a result of a change in the division between wages and profits.⁴⁸

This explains why Ricardo was preoccupied with the second effect and the search for a measure of value, since a rise or fall of wages by itself would bring about a change in the magnitude of the social product. Unless a measure can be found, it becomes hard to determine quantitatively the effect of changes in wages on profits. Therefore, if the inverse wage-profit relation is central to Ricardo as Sraffa thinks, and furthermore, if Ricardo had a labor-embodied theory of value, then without the invariable measure of value, it would have been impossible to preserve the inverse wage-profit relation. This explains Ricardo's life-long obsession with the invariable measure of value.

The first effect -- the differences in relative value being due to differences in quantities of capital -- requires measurement of the quantity of capital. Ricardo believes that would mean ascertaining the value of capital; the very thing being disputed. From the following exchange between Ricardo and McCulloch (the significance of which was pointed out the first time by Sraffa), one can see how acutely aware Ricardo was of the difficulty of measuring capital. Ricardo, referring to Torrens' theory that commodities are valuable according to the value of capital employed in their production, writes to McCulloch on 21 August 1823:

I would ask what means you have of ascertaining the equal value of capitals? ... these capitals are not the same kind ... and if they themselves are produced in unequal times they are subject to the same fluctuations as other commodities. Till you have fixed the criterion by which we are to ascertain value you can say nothing of equal capitals ... The means of ascertaining their equality or variation of value is the very thing in dispute.⁴⁹

One cannot help but think that in his obstinate search for an invariable measure of value, Ricardo sensed the difficulties concerning the measurement of quantity of capital. One hundred and fifty years later, the same problems concerning the size of national income, the effects of income distribution on prices, and again, the measurement of capital (a major issue in the "Capital Controversy") are still being debated among economists. Perhaps this alone is evidence that Ricardo's search was not altogether useless.

II. PRODUCTION OF COMMODITIES BY MEANS OF COMMODITIES

In 1960, Piero Sraffa published a slim book: The Production of Commodities by Means of Commodities, subtitled Prelude to a Critique of Economic Theory,⁵⁰ whose central propositions are said to have taken shape in the late 1920s. Having been produced over such a long time, Sraffa's book was naturally received with curiosity. An immediate reaction to the book was one of puzzlement because the book is written in a style which is extraordinarily terse with no concessions to the reader. In spite of its explicit mathematical reasoning, no mathematical proofs and references (apart from the names of the mathematicians whose help is acknowledged in the preface) are given, no reference is made to any work more recent than Marx, and neither statistical tables nor historical facts are used. Even more puzzling, is the fact that although the investigation of prices of production is one of its central topics, no reference is made to demand and demand elasticity of the final good. R. F. Harrod, after announcing the publication of the book as "a notable event," addressed the issue of the book's difficult nature and wrote that "a reviewer would be presumptuous if he supposed that he could give a final assessment of the value of its net product, or even single out what may prove to be its most lasting contributions. Before that result could be achieved, much prolonged consideration and reconsideration would be required."⁵¹ He expressed the difficulty of even summarizing the

themes of the book since "there are complicated interconnections between the various theses." In the years that followed the publication of Sraffa's book, a large body of literature has developed around its various themes.⁵² With the capital controversy of the 1960s and 1970s, one aspect of Sraffa's book attracted more attention than others: a critique of marginal theory of value and distribution. Some of the most important elements in the capital controversy are said to have arisen from Sraffa's book.⁵³ The book was viewed as a "devastating" critique of marginalism leading to the "annulment of the myth of the measurable productivity of capital."⁵⁴ In the late 1970s, several links have been found between the logic of Sraffa's ideas and Marxism. Some hailed the book as providing Marxism with indispensable analytical tools at the same time that others considered it a serious challenge to the Marxist theory: it pointed out the redundancy of the labor theory of value in the determination of the rate of profit.⁵⁵ Still others considered the book, with its conception of capital as a physical entity, as being essentially unMarxist in character, differing drastically from Marx's conceptions; "it present[ed] economic relationship of capitalism in precisely the way that Marx described as 'commodity fetishism'."⁵⁶ As far as the classical school and Ricardo is concerned, the book was viewed as a "Ricardo in modern dress"⁵⁷ or as helping to complete the "rediscovery of Ricardo"⁵⁸, or as being essentially "unRicardian"⁵⁹ in character. Debates on Sraffa's book continue and still more impressive literature is growing around its various themes.

A comprehensive investigation of the value or lack of value of the book is well beyond the scope of this study. It requires a separate and a detailed study in itself, one that would investigate not only the logical premises and analytical structures of the arguments but would indicate the implications and extensions of its themes. It would have to establish links, points of intersection with and departures from the Keynesian, Marginalist, Marxist economics. And, at the same time, it would need to address the position of this book as a major theoretical and methodological statement of the neo-Ricardian School. With the advantage of hindsight it is possible to detect three major themes in the book: 1) a critique

of marginalist theories (dose and significance of it ranging from confined to devastating); 2) an economic model, proven to be logically consistent, mathematically sound, and designed to be deliberately restrictive in order to address the issues which are seen as important in a most effective way; 3) a rediscovery of a standpoint peculiar to classical economists, using "a method of analysis originally designed by Ricardo" which had been "submerged and forgotten." All of these views have validity and would be in line with Sraffa's stated purposes. But as far as the relation of this book to Ricardo is concerned, it seems appropriate to place the third perspective as the central focus.

Sraffa, who is known to have been parsimonious or even perhaps "niggardly" in giving hints, points to the connection of his book with the theories of "old classical economists" in Appendix D. He alludes to the corn model as constituting an important link with his own work:

A method devised by Ricardo (if the interpretation given in our Introduction to his Principles is accepted) is that of singling out corn as the one product which is required both for its own production and for the production of every other commodity. As a result, the rate of profits of the grower of corn is determined independently of value, merely by comparing the physical quantity on the side of the means of production to that on the side of the product, both of which consist of the same commodity; and on this rests Ricardo's conclusion that 'it is the profit of the farmer that regulate the profits of all the other trades'. Another way of saying this, in the terms adopted here, is that corn is the sole 'basic product' in the economy under consideration.⁶⁰

Furthermore, Sraffa touches briefly upon similarity between this approach and that of classical economists. He argues that Ricardo's conception of the dominant role of the farmer's profit appeared to have a point of contact with the Physiocratic doctrine of the 'produit net' and had its counterpart in Marx's conception of the 'physical' nature of the surplus in agriculture, taking the form of an excess of food produced over the food advanced for production. Furthermore, Sraffa mentions the similarities between his method and Torrens' method in treating fixed capital. Ultimately the conception of an economic system as being a series of relationships between production and consumption in

a circular process, is in Sraffa's opinion placed in striking contrast to the view presented by marginalist theories. Sraffa describes the latter as a "one-way avenue that leads from 'Factors of production' to 'consumption goods.'"⁶¹

Sraffa claims that in Ricardo, properties of an economic system do not depend on changes in the scale of production or in the proportions of means. Ricardo thus assumed that given the technological conditions (conditions of production), the returns to scale for industry as a whole would be constant. The constancy of returns is assured by the production process wherein the proportions in which different means of production used are fixed. Sraffa cautions the reader that he does not make the supposition of the constancy of returns but admits that if such supposition helps the reader, there is no harm to use it as a "temporary working hypothesis." Sraffa mentions that the temptation to presuppose constant returns is not entirely fanciful and that he experienced it himself when he started on his studies "many years ago -- and it led him in 1925 into an attempt to argue that only the case of constant returns was generally consistent with the premises of economic theory."⁶²

Sraffa, of course, produced an article in 1925, in Italian⁶³, a condensed and somewhat modified English translation of which was published in 1926 under the title of "The Laws of Returns Under Competitive Conditions."⁶⁴ In this article Sraffa wrote:

The supply schedule with variable costs cannot claim to be a general conception applicable to normal industries; it can prove a useful instrument only in regard to such exceptional industries as can reasonably satisfy its conditions. In normal cases the cost of production of commodities produced competitively - as we are not entitled to take into consideration the causes which may make it rise or fall - must be regarded as constant in respect of small variations in the quantity produced. And so, as simple way of approaching the problem of competitive value, the old and now obsolete theory which makes it dependent on the cost of production alone appears to hold its ground as the best available.⁶⁵

Thus, Sraffa argues in 1926 that constant cost is the general case and is the one compatible with the classical theory. He points out that "in the tranquil view which the modern theory

of value presents us there is one dark spot." Sraffa suggests that in the law of increasing returns, "consideration of that greater internal division of labour, which is rendered possible by an increase in the dimensions of an individual firm, was entirely abandoned, as it was seen to be incompatible with competitive conditions."⁶⁶ It appears then, that in 1926 Sraffa was in fact aiming towards a critique of the modern theory of value in its entirety. However, apparently at the time more interest was shown in his remarks on the theory of the firm - which were later developed by Joan Robinson in her theory of imperfect competition. It is known that increasing returns represented a problem for Marshallian economics in that under perfect competition, prices are determined in the market independently of the firm's output. According to the principle of increasing returns, average cost declines as output expands. As the firm expands and acquires other firms, perfect competition disappears.

As far as Sraffa's book is concerned, the question of variation or constancy of returns does not arise because he assumes no changes in output. Sraffa, inspired by his corn model interpretation, designs a system in which he investigates the relationships between wages, profits and prices for a given condition of production when the wage rate, profit rate and the price of each commodity are uniform throughout the economy. He first begins with a simple subsistence economy, corresponding to (what Smith and Ricardo called the "early and rude states of society" and shows that relative values correspond to labor embodied in them. Next, he differentiates between "basic" and "non-basic" commodities. Basic commodities correspond to corn, and were given a function similar to that given to corn in his corn-model interpretation. Namely, basics enter into the production of all commodities, including themselves; non-basic commodities require basic commodities for their production but are not required to produce basics. Inspired by Ricardo's search for an invariable measure of value, Sraffa constructs a fictitious commodity called "the standard commodity" which was "the perfect composite commodity." The special characteristic of the standard commodity is that it "consists of the

same commodities combined in the same proportions as does the aggregate of its own means of production. In other words, both product and means of production are quantities of the self-same composite commodity."⁶⁷ Differently phrased, a standard commodity is one in which basics enter in the same proportion in the input as in the output.⁶⁸ This standard commodity serves to distinguish the surplus (the excess of output over input in Sraffa's terminology), independently of the prices:

Thus in the standard system the ratio of the net product to the means of production would remain the same whatever variations occurred in the division of the net product between wages and profits and whatever the consequent price changes.⁶⁹

The similarity between the function given to the Standard system (to keep the ratio of the net product to input constant regardless of the variations in the division of the net product between wages and profits) and the difficulty which troubled Ricardo is striking. As it will be recalled, Sraffa claims that Ricardo was troubled by the fact that "the size of this [national] product appears to change when the division changes."⁷⁰ In terms of symbols, Sraffa denotes the ratio of net product to the means of production by R , r is the rate of profits and w is the wage rate (proportion of net product going to wages). The relationship between wage rate, profit rate and the standard ratio is expressed in the following relation:

$$r = R(1 - w)$$

By changing wages from 1 to 0 (1 being all net product going to labor, 0 being all net product going to capitalists), Sraffa shows that "the rate of profit increases in direct proportion to the total deduction made from the wage." The extent of increase of the rate of profits (r) depends on the value of R . Sraffa, finally, shows that the application of such a relation" is not limited to the imaginary Standard system but is capable of being extended to the actual economic system of observation."⁷¹

The sense in which Sraffa's construction solves Ricardo's problem (if the interpretation of Ricardo's problem described in the introduction to his Principles is

accepted) can be explained as follows: Ricardo first stated his labor theory of value in its purest form wherein the relative value of mass-produced commodities are determined by the amount of labor embodied in their production. Next he introduced his famous modifying principles that unequal capitalization makes values diverge from the labor embodied. In his discussion of the "curious effect," Ricardo predicted that prices of those commodities with a high degree of capitalization fell following a rise of wages (a result which excited him). But, this rise in the relative prices depends upon the invariability of his measure, and Ricardo was not convinced that his suggested measures were invariable; thus he worked on the problem of invariable measure of value to his last days. Sraffa's Standard System solves Ricardo's problem because the commodities which enter into the production of the standard commodity with higher than average capitalization and higher relative prices are exactly matched by commodities whose relative prices are lower. Therefore it is possible to talk about the division between wages and profits without upsetting the value (R) to be divided. Sraffa's standard commodity is invariant in a specific sense: when the price of standard commodity is expressed in terms of its own means of production, then that price is invariant to changes in the wage and profit rates.

In Sraffa's System, the distribution of income occurs prior to and independently of the pricing of commodities, and rate of profit can be specified in physical terms independently of variations in price. In this system there is no room for demand and supply determination of prices. The word "demand" does not appear in his index.

Sraffa, in the remainder of his book, investigates difficult theoretical problems whose origins he finds in the writings of classical economists. For example, he points to the similarity between his treatment of fixed capital and a method introduced by Torrens which was adapted by Marx. He investigates theoretical problems encountered in multiple product industries with fixed capital. Using a method of successive approximations, he deals with a more complex system of equations. He treats fixed capital as a joint product of the industry in which it is used. One topic in Sraffa's book which had profound impact in

the doctrinal debates of the 1960s and early 1970s was: "Switch in Methods of Production." This topic appears as a corollary to the main arguments established earlier in the book. The significance of the "double-switching" or "reswitching" argument will be discussed in the next chapter, but here it seems appropriate to briefly summarize the argument itself.

Sraffa, using wage/rate of profit frontiers ("Factor price frontiers") to represent two different techniques of production (A and B) demonstrated that, except in one case, the same technique of production of single consumption good is the more profitable of the two techniques at both very low and very high levels of the rate of profit. At a certain low rate of profit, technique B is superior to technique A; thus the economy switches from technique A to technique B. At a certain high rate of profit, technique A which had been discarded as inferior (unprofitable) becomes superior, thus the economy "reswitches" to technique B. This problem is called the reswitching or double-switching of techniques. Sraffa shows that in any growth model utilizing a well-behaved aggregate production function, reswitching of techniques is the rule rather than the exception. The only case where reswitching is not possible is when the two techniques have the same capital-labor ratios (in Marx's terminology equal organic composition of capitals). In other words if the two wage-profit frontiers are straight lines, the system escapes reswitching. As mentioned earlier, Ricardo assumed that the organic composition of capitals were equal in the first chapter, first section of his Principles before he introduced his modifying principles (pure labor theory of value).

The reswitching argument provided one of the most important technical weapons for the participants in the Capital Controversy of the Cambridge School. Joan Robinson was the leading active participant and the defender (it is hard to avoid gladiatorial imagery in discussing the sides) of the Cambridge (England) School. One of Joan Robinson's major themes is that, there is no meaning that can possibly be given to a "quantity of capital" apart from the rate of profit. Therefore, the contention that the "marginal

productivity of capital" determines the rate of profit is meaningless, because in order to determine the marginal productivity of capital, one has to aggregate capital. She complained that it is impossible to find a unit in which capital may be measured as a number (index). This is Joan Robinson's famous "curiosum."⁷²

Joan Robinson wrote in 1970: "I had picked up the clue from Piero Sraffa's Preface [viz. Introduction] to Ricardo's Principles and my analysis (errors and omissions accepted) was a preview of his."⁷³ Robinson did not mention the clue but it should be clear now that it is the aforementioned exchange between Ricardo and McCulloch where Ricardo wrote: "I would ask what means you have of ascertaining the equal value of capitals? ... these capitals are not the same kind ..." The impossibility of aggregating capital is a parenthetical argument in Sraffa's book. In his discussion of "Reduction to Dated Labour" Sraffa wrote:

(The reduction to dated labour terms has some bearing on the attempts that have been made to find in the 'period of production' an independent measure of the quantity of capital which would be used, without arguing in a circle, for the determination of prices and of the shares in distribution. But the case just considered seems conclusive in showing the impossibility of aggregating the 'periods' belonging to the general quantities of labour into a single magnitude which could be regarded as representing the quantity of capital. The reversals in the direction of the movement of relative prices, in the face of unchanged methods of production, cannot be reconciled with any notion of capital as a measurable quantity independent of distribution and prices.)⁷⁴

Thus, it appears, that Sraffa also followed up on the clue that he uncovered from one of Ricardo's letters. This seems to suggest that one of the major arguments in the capital controversy had its roots in Ricardo's writings.

Notes

1. In Appendix D, "References to the Literature," of Production of Commodities by Means of Commodities, 1960, p.93, Sraffa wrote: "The connection of this work with the theories of old classical economists has been alluded to in the Preface" and pointed to similarity of his method to "a method devised by Ricardo."
2. Sraffa, Production of Commodities by Means of Commodities, Cambridge University Press, 1960, Preface, p.v.
3. The back cover of David Ricardo, On the Principles of Political Economy and Taxation, publisher quoting a commentary published in the New York Times.
4. G. Stigler, "Sraffa's Ricardo," The American Economic Review, Vol. XLIII (September, 1953), reprinted in Essays In the History of Economics, The University of Chicago Press, 1965, pp. 302-325, especially pp. 302-304.
5. Sraffa, Works, I, p.x.
6. C. F. Dunbar, "Ricardo's Use of Facts," Quarterly Journal of Economics, Vol. 1, July 1887, pp.474-476, reprinted in David Ricardo: Critical Assessments, Edited by John Cunningham Wood, Croom Helm, 1985, Vol I, pp. 7-9. For example see p.7: "It appears from these notices not unlikely that Ricardo's book was written, not for the public eye, but as a statement of opinions made for his own purposes, and that its publication was an afterthought of his friends." It must be noted that this article was originally published as "Anonymous" and the author is not mentioned in the reprint either. Sraffa, in page xx of his introduction, mentioned the author's name and quoted the passage quoted above.
7. See the section above: "Marshall on Ricardo."
8. Sraffa, Works, I, p.xx.
9. Ibid., p.xxi.
10. Ibid.
11. Nevertheless, some interpreters keep on quoting from the Index to support their particular interpretations. For example, see S. Hollander, The Economics of David Ricardo, p.399, where Hollander quoted an entry, modifying it with bracketed terms: "'a rise in [money] wages [is] not necessarily productive of comfort to the labourer,' " to support his thesis that Ricardo's corn theory, and the Table in the Essay were designed to demonstrate the quoted argument, but nothing more.
12. Sraffa, Works, I, p.xxii: "Mill, indeed, had instructed him [Ricardo] to 'proceed, without loss of time ... thinking nothing of order, thinking nothing of repetitions, thinking nothing of stile -- regarding nothing, in short, but to get all the thoughts blurred upon paper some how or another' and 'when we have the whole before us, we will then lay our heads together, to see how it may be sorted and shaped to the best advantage.' The three parts in which Ricardo composed it and which he sent separately to Mill correspond to the three groups into which the chapters of the published work naturally

fall: the Political Economy, Taxation and the polemical chapters at the end. The arrangement would have been less open to criticism if this division had been made explicitly by means of separate headings."

13. Sraffa, Works, I, p.xix: "On the 26 March, when Ricardo put the last part of his manuscript into the printer's hands, he complained that the latter did 'not proceed regularly at the same even pace.'"

14. Sraffa, Works, I, pp.xxvi-xxviii. It must be noted here paranthetically that Sraffa's conjectures as to how two chapter VIIIs appeared in the first edition is verified: G. Stigler mentions that he found a copy of the First Edition of the Principles in the Columbia University Library which had an uncorrected page 220, and which continued with the opening passages of the second Chapter VIII; the corrected pages 219-22 were bound in the Index. See G. Stigler; "Sraffa's Ricardo," p.303. Essays in the History of Economics, Chicago, 1965.

15. See above the section: "W. C. Mitchell on Ricardo."

16. Sraffa, Works, I, p.xxx.

17. Malthus opposed to Ricardo, asserting that "the profits of the farmer no more regulate the profits of the other trades, than the profits of other trades regulate the profits of the farmer." (Sraffa, Works, IV, p.23). It appears, then, Malthus' objection is to the analytical relevance of such a proposition.

18. In this respect Sraffa differs from Luigi Pasinetti, who claims that the corn model should be attributed to a "mature" Ricardo. Growth and Income Distribution: Essays in Economic Theory, Cambridge, 1974, pp.1-2.

19. This view came to be known as "The material rate theory"; see for example J. Eatwell, "The Interpretation of Ricardo's Essay on Profits," Economica, May 1975, p.185.

20. Sraffa, Works, I, p.xxxi.

21. Sraffa points out that (Sraffa Works, I, pp. xxxi-xxxii) Malthus, in a letter dated 5 August, 1814, written to Ricardo: "In no case of production, is the produce exactly of the same nature as the capital advanced. Consequently we can never properly refer to a material rate of produce ... It is not the particular profits or rate of produce upon the land which determines the general profits of stock and the interest of money." Sraffa claims that Malthus was probably referring to their previous conversation, and discussions. Malthus's opposition was an echo of Ricardo's own formulation. Sraffa mentions a passage from a letter of Ricardo to Malthus dated 26 June, 1814, supporting his conjecture that such conversion might have been taking place before Malthus wrote his August 1814 letter: "The rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production."

22. Sraffa, Works, I, p.xxxii.

23. Ibid., p.xxxiii.

24. Ibid.

25. Sraffa mentions other passages in the Essay which foreshadow his full theory of value and already link it with the theory of profits, see Sraffa, Works, I, pp. xxxiii-xxxiv.

26. Sraffa, Works, I, p.xxxiv.

27. Ibid., p.xxxii.

28. Sraffa, Works, I, p.xxxii; Sraffa quoting from Ricardo's letter to Malthus, dated 26 June 1814. (See the note 21 above.)

29. Ibid., Works, I, p.xxxv, Sraffa quoting from Ricardo's letter to Mill, dated 14 October, 1816.

30. Ibid., p.xlix.

31. Ibid., p.xxxv.

32. Ricardo explained that: "the proportions ... in which the capital that is to support labour and the capital that is invested in tools, machinery and buildings may be variously combined. This difference in the degree of durability of fixed capital, and this variety in the proportions in which the two sorts of capital may be combined, introduce another cause, besides the greater or less quantity of labour necessary to produce commodities, for the variations in their relative value - this cause is the rise or fall in the value of labour." (Ricardo, Works, I, p.30.)

33. M. Dobb mentions Erich Roll, Cannan and J. Hollander having such interpretations. See M. Dobb, Theories of Value and Distribution Since Adam Smith, Cambridge University Press, 1973, p.80.

34. Schumpeter, History of Economic Analysis, N.Y., 1959, p.594.

35. Sraffa, Works, I, p.xxxvii-xxxviii.

36. In a private conversation J. P. Henderson has pointed out that "the difficulty with J. Hollander's view stems from the identification of the labor-embodied theory of value with a theory of individual prices. It is usually ignored that this type of value formulation became significant only with the development of the utility theory of value, already under way in Ricardo's time. The utility theory of value, with its emphasis upon individual use values, had as its central purpose the explanation of individual market prices."

37. S. Hollander agrees with Sraffa that there was no retreat: "there is thus ample support for the view of Piero Sraffa that between the first and third editions there was no 'retreat' from the strict labour theory of value." (The Economics of David Ricardo, p.217.)

38. Ricardo's letter of December 28, 1818 to Mill reads:

[Torrens] makes it appear that Smith says that after capital accumulates and industrious people are set to work the quantity of labour employed is not the only circumstance that determines the value of commodities, and that I oppose this opinion. Now I want to shew that I do not oppose this opinion in the way that he represents me to do so, but Adam Smith thought, that as in the early stages of

society, all the produce of labour belonged to the labourer, and as after stock was accumulated, a part went to profits, that accumulation, necessarily, without any regard to the different degrees of durability of capital, or any other circumstance whatever, raised the prices or exchangeable value of commodities, and consequently that their value was no longer regulated by the quantity of labour necessary to their production. In opposition to him, I maintain that it is not because of this division into profits and wages, -- it is not because capital accumulates, that exchangeable value varies, but it is in all stages of society, owing only to 2 causes: one the more or less quantity of labour required, the other the greater or less durability of capital: -- that the former is never superseded by the latter, but is only modified by it. (Ricardo, Works, VII, p.377.)

39. Sraffa, Works, I, p.xxxix.
40. Ricardo, Works, I, pp. 43-44.
41. Ibid., p.xli.
42. Ibid., p.xlii.
43. Ibid., p.xliv.
44. Ibid., p.xlv.
45. Ibid.
46. Ibid., p.66. Sraffa mentions the same example in p. xlii.
47. Ibid., p.xlviii.
48. Ibid.
49. Ibid., p.xlix.
50. Piero Sraffa, The Production of Commodities by Means of Commodities, Cambridge University Press, 1960.
51. R. F. Harrod, Review of Production of Commodities by Means of Commodities, Economic Journal, Dec. 1961, pp. 783-787.
52. Alessandro Roncaglia gives a partial list of books and articles written between 1960 and 1978 relating to Production of Commodities by Means of Commodities. He lists 426 books and articles: A. Roncaglia, Sraffa and the Theory of Prices, John Wiley and Sons, 1978, pp. 154-171.
53. Hywel G. Jones, An Introduction to Modern Theories of Economic Growth, McGraw-Hill, 1976, p.124. Arguments he refers to are the "Double-switching" and "Capital-reversing."
54. E. K. Hunt, History of Economic Thought. A Critical Perspective, Wadsworth Publishing Company, 1979, p.398.
55. Ian Steedman, Marx After Sraffa, Verse Edition, 1981. This is one of the major themes of Steedman's book. See pp. 14, 48, 49, 213, etc.

56. Frank Roosevelt, "Cambridge Economics as Commodity Fetishism," Review of Radical Political Economics, Vol. 7, No. 4, Winter 1975; reprinted in The Subtle Anatomy of Capitalism, Ed. Jesse Schwartz, Goodyear Publishing Company, 1977, pp. 412-457, especially pp. 412, 438-452.
57. Mark Blaug, Economic Theory in Retrospect, Richard D. Irwin, Inc., 1968, p.143.
58. Alessandro Roncaglia, "The 'Rediscovery' of Ricardo," New Left Review, Nov-Dec. 1978, Nov.112, p.80.
59. Samuel Hollander, "Economics and Ideology: Aspects of the Post-Ricardian Literature," Literature of Liberty, Vol. 2, No. 3, July-Sept. 1979. p.23: "Marx, on my reading, is a "Ricardian" theorist. By contrast, Sraffa is not."
60. P. Sraffa, The Production of Commodities by Means of Commodities, p.93.
61. Ibid., pp.93-95.
62. Ibid., pp.v-vi.
63. P. Sraffa, "Sulle relazioni fra costa e quantita prodotta," Annali di economia, II, 1925, pp. 277-328.
64. P. Sraffa, "The Laws of Returns Under Competitive Conditions," Economic Journal, XXXVI, 1926, pp-535-550. This article is reprinted in Readings in Economic Analysis, ed. R. V. Clemence, Vol II (Cambridge, Mass., Addison-Wesley Press, 1950), pp. 54-69 and in Readings in Price Theory, ed. G. J. Stigler and K. E. Boulding (London, Allen and Unwin, 1953), pp. 180-197. (References are given to this second reprint).
65. Ibid., p.186-187.
66. Ibid., p.183.
67. Sraffa, The Production of Commodities by Means of Commodities, p.19.
68. For the technical details of construction of the standard commodity, see Sraffa, Ibid., p.19-20.
69. Ibid., p.21.
70. Sraffa, Works, I, p.xlviii.
71. Sraffa, The Production of Commodities by Means of Commodities, p.22.
72. J. Robinson, "Capital Theory Up-to-Date" Collected Economic Papers, Volume IV, Humanities Press, 1973, p.144.
73. Ibid., p.145.
74. Sraffa, Production of Commodities by Means of Commodities., p.38.

CHAPTER EIGHT: S. HOLLANDER ON RICARDO

Among all of the commentators on Ricardo and his economics, Samuel Hollander is by far the most controversial and complex. He is also distinct for having written more than anyone else on the economics of Ricardo.¹ He covered a vast area, not only studying and interpreting assertions, statements, assumptions, hypotheses, and theories by Ricardo but also investigating the origins of his theories. Hollander compared his central and minor themes with previous and subsequent thinkers and schools, as well as investigated the compatibility or incompatibility of his theories with that of several diverse schools of thought. He attempted to reach conclusions as to the place of Ricardo in the history of economic thought. In doing so, he is distinguished by his extensive use of some of the writings and speeches of Ricardo which were thought to be "secondary" or "minor" in the investigation of his economics.²

Hollander's book on Ricardo, The Economics of David Ricardo (1979), is a culmination of many journal articles and is designed as a sequel to his book on Adam Smith (1973), a part of his trilogy on the classical economists: Adam Smith, Ricardo, J. S. Mill. The vastness of the area Hollander's book and articles cover (sometimes deals with issues which are only indirectly related to Ricardo) makes it difficult to establish how he interpreted Ricardo. Hollander's book has drawn an almost uniform reaction from different commentators who associated themselves with diverse schools. His book is regarded as "nothing less than a full scale frontal attack on the existing body of Ricardo scholarship,"³ "a far-reaching reconstruction of the history of economic thought,"⁴ "obscuring the significance of the surplus approach,"⁵ "a highly personal document" which ignores "consideration of economics as a scientific enterprise,"⁶ "stretching the art of sympathetic interpretation beyond all reasonable limits" constituting "a brand of interpretation that requires such intellectual acrobatics."⁷

Apart from the size of his book and the diversity of topics he covers, Hollander's interpretation of Ricardo is more difficult to comprehend than others. This is because he applies himself not only answering the questions "what did Ricardo say?" and "why he said it the way he did" but also:

- 1) What did Ricardo mean, but did not say?
- 2) Was what he said inconsistent with what he did not say?
- 3) What were his "real intentions" which may not be reflected in his "formal statements"?

Another difficulty is that, based on his perceptions acquired by investigating such questions Hollander attempts to test the consistency or inconsistency of the economics of Ricardo with marginalism, Marxism, and neo-Ricardianism. He utilizes terminology and concepts which may be unsuitable for such a task. This process involves both comparing concepts and theories and testing them on the basis of a chosen standard. It also involves the interpretation of interpretations in order to provide support for a chosen thesis or to refute an opposing thesis.

Hollander's book(s) and articles on Ricardo may be regarded as:

- 1) "Highly personal documents ... reflecting his own interests which are strongly doctrinal and only modestly directed to actual economic phenomena"⁷ utilizing personal interpretive techniques, arriving at far reaching conclusions which are in line with his known doctrinal beliefs and interests;

- 2) Without concentrating on his interpretative techniques, one can simply regard his efforts as a part of integrated, deliberate attempt to show that progression of economics from Adam Smith to Marshall is continuous, not involving any methodological, conceptual and analytical breaks between the classical political economy and marginalist (neoclassical) economics;

3) A book of polemics, quarreling with almost all leading interpretations, disagreeing in one way or another with fifty other leading commentators on Ricardo,⁸ full of "nit-picking digressions that cross the t's and dot the i's of previous interpretations."⁹

The purpose of this section is to investigate Hollander's interpretation of Ricardo without a prior commitment to any one of the above stated judgements. Our central focus being the economics of Ricardo, and not that of Hollander, I shall try to clarify the question of "how Hollander interpreted Ricardo" by concentrating largely on issues Hollander considers central to interpretations of Ricardo. In doing so, some of the interpretive techniques of Hollander will be examined, and significance of his conclusions as to the place of Ricardo in the history of economic thought will be addressed.

A. RICARDO'S METHOD

1. On Prediction.

According to Hollander, Ricardo was an abstract theorist who using a deductive methodology, developed hypothetical models without committing to any specific model as applicable to real-world economic situations. His efforts were mainly taxonomic or classificatory and did not produce any prediction about the future.

Hollander wrote:

In his work on Epistemics and Economics, G.L.S. Shackle urged that a theory ought to be "a classificatory one, putting situations in this box or that according to what can happen as a sequel to it. Theories which tell us what will happen are claiming too much." This position, I maintain, was precisely that of Ricardo.¹⁰

Since Hollander maintains that Ricardo subscribed "precisely" to the same methodological position as Shackle, and since this judgement is consistent with the rest of Hollander's interpretations about Ricardo's economics, it is necessary to study Shackle's methodology in some detail.

According to Shackle, "economics is about thoughts. It is therefore a branch or application of epistemics, the theory of thoughts," and he adds, "the conjuncture, in our title, of the two words Epistemics and Economics expresses with precision my own belief about the essential nature of our subject."¹¹ Shackle believes that the record of economics as a predictive science is so poor that a knowledge of history dictates extreme skepticism when deriving policy conclusions from economic theorizing. "Economics has veritably turned imprecision itself into a science: economics, the science of the quantification of the unquantifiable and the aggregation of the incompatible."¹² Shackle claims that as far as predictions are concerned, there is a large gulf between economics (and the humanities) and the natural sciences, but economics has the dubious distinction of being a "science which of all scholarly disciplines, most recklessly oversteps the gulf between the humanities and the physical sciences."¹³ Because economics is about thoughts and it is subjective, "economic theories which tell us what will happen are claiming too much."¹⁴ Politics, diplomacy, technical change, or change of any sort could easily reverse any definitive prediction. Economics being a taxonomic science¹⁵ need not be a source of dismay to its practitioners because, according to Shackle, "classification is no second-rate technique."¹⁶

Shackle believes that economics is for pleasure and not for policy or for prediction. He disagrees with Marshall in that he believes "the explanation of the past and the prediction of the future are not different operations, but the same worked in opposite directions, the one from effect to cause, the other from cause to effect."¹⁷ Shackle contends that history under given conditions can be "explained" but prediction:

is hardly more than theorizing in a vacuum. To ask: How did that traveller get there? is not the same as to ask: where may that traveller go from here? The former has a setting in which clues may readily offer themselves, the latter is not likely to be so well provided with ancillary questions whose answers may suggest themselves, and may themselves suggest clues to the intentions or circumstances of the traveller into the void.¹⁸

Thus, Shackle believes, economic theories cannot be falsified because they do not yield precise predictions.

Hollander, first of all, states that Ricardo used deductive mode of reasoning in his economic analysis but this should not be interpreted as "a methodological revolution of 1817" since Smith used the very same method:

late eighteenth and early nineteenth century economists were struck by Smithian 'system-building,' and in some cases took Smith to task for a too rapid transfer from theory to policy and a predilection for long trains of deductions, the very charges directed later by some interpreters against Ricardo -- the famous 'Ricardian Vice.'¹⁹

For Hollander there is no such thing as the "Ricardian Vice" simply because he did not intend his models to have any predictive purpose. The predictive element in Ricardo should not be exaggerated.²⁰ Hollander maintains that Ricardo's "unearned reputation" as an applied economist is derived from his emphasis on the "long run" point of view when addressing himself to policy issues. Hollander believes that this reputation is unjustified and is based on a failure to appreciate the nature of the Principles. He suggests, however, that Ricardo was not divorced from day-to-day considerations, he was in fact preoccupied with the short-run matters. The particular forum for his "applied economics" were his pamphlets, parliamentary speeches and correspondence, so he was keenly aware of practical problems. As far as his analytical work is concerned, claims Hollander, he did not devise them to produce appropriate predictions. According to Hollander, the misunderstanding stems in part from Ricardo's habit of "not repeating a hint" and "his delight in imagining strong cases"²¹ (thus sharing methodological judgements of Marshall), and in part readers' failure to appreciate the precise nature of the work. Ricardo had different cases and models in his mind, and his economics should be seen as a general review of cases classified "in this box or that."

2. Interpretative Devices:

In order to explain Ricardo's method and to interpret the main analytical contributions or central core of Ricardo's economics, Hollander employs certain classificatory devices which he believes are suitable for interpreting Ricardo. These classificatory devices are concepts designed to rank Ricardo's statements. Examples of such concepts are: "formal statements," "simplifying assumptions," "matters of principle," "first approximation," "second approximation," "strong cases," "weak cases," "process analysis," "statement of principles," etc. A statement X classified in one context as a "first approximation" may become a "formal statement" in another case. In each context Hollander introduces his classificatory devices as an ancillary (or auxiliary) hypothesis supporting his central interpretative theme: "The substantive identity of the Ricardian and neo-classical conceptions of economic organization."²²

According to Hollander, Ricardo used "simplifying devices" typically as parts of his general method of economic theorizing. These "simplifying devices" are designed for "pedagogical purposes" to illustrate the "matters of principles" by means of "parables."²³ Ricardo believed, according to Hollander, "statements of principles" or "matters of principles" can best be explained in terms of these "parables," which clarify his exposition. For example, in order to demonstrate the "general principle" of profit rate determination, Ricardo had to resort to a "simplifying assumption" of wage rate being constant.²⁴ Constant wage, being nothing more than a simplifying pedagogical device had to be dropped as the model's degree of complication increased in the later stages of theorizing. These later stages of theorizing required a "process analysis." "Process analysis" entails casual linkages.²⁵ So, following the above example, it became necessary for Ricardo to drop the constant wage assumption and adapt variable wages, or wages being the variable rather than a given, a "data."

In other words, Ricardo used different levels of abstraction. "The constancy of the wage rate is nothing more than a first approximation, for purposes of analytical simplicity, to be relaxed when appropriate."²⁶ When another simplifying device is relaxed, that would

be his "second approximation." Examples of such simplifying assumptions, according to Hollander, are: zero demand elasticity for corn, "his value theory in terms of labor input,"²⁷ and one with a crucial importance to Hollander: uniform factor ratios.²⁸

First, second, third, etc., approximations point, according to Hollander, to Ricardo's appreciation of multicausality. As a general method "Ricardo insisted upon the principle of multi-causality."²⁹ When Ricardo was aware of other causes he introduced them into his system. When he was not sure about the nature of other causes, he admitted the possibility of their operation, nevertheless he was sufficiently confident about the operation of causes he himself identified.³⁰ Hollander sometimes uses the terms "immediate causes" or "proximate causes,"³¹ "disturbing causes"³² for identification purposes, he also uses them at times to differentiate "important" causes from "less important" ones.

Another taxonomic category for Hollander is the differentiation between "strong cases" and "weak cases," which is directly related to multicausality. Now, "strong cases" are built upon "principal causes" and "simplifying assumptions" are given the role of a connector. The function of "strong cases" was then to explain a principle better ³³ or "to demonstrate the operation of economic principles."³⁴ From time to time and for different reasons, Ricardo used "weak propositions" or "weak cases" by admitting "subsidiary" or "secondary causes" and/or discounting the impact of one cause on another by qualifying them with adjectives such as "almost," "mostly," or "nearly." Hollander utilized two categories -- "weak" and "strong propositions" -- in the discussion of the impact of agricultural profit rate on the general profit rate:

We must recall at this stage of the argument, a distinction between the "strong" proposition that the agricultural profit rate determines the profit rate elsewhere or a more sophisticated variation thereof that the state of agricultural productivity on the margin of cultivation is the unique determinant of the general profit rate; and the "weaker" proposition that the state of agricultural productivity exerts an influence on the general profit rate although not to the exclusion of other forces. ... Ricardo's position in the correspondence of 1814 implies the "weak" proposition.³⁵

As will be seen below, in his interpretation of Ricardo's early theory of profit, Hollander connects the "strong" and "weak" propositions to the question whether Ricardo assumed wages to consist entirely of corn or admitted other goods into the "wage basket."

In his interpretation of "Ricardo's demand and supply theories," Hollander makes extensive use of Ricardo's "formal statements" as opposed to his "real intentions." For example, "Chapter XXX of the Principles is devoted entirely to a formal criticism of supply and demand theory"³⁵ or in his letter dated 30 Jan 1818 to Malthus, "Ricardo formally objected to 'demand-supply' analysis,"³⁷ but this did not reflect his "intentions."³⁸ "Formal statements" are what one perceives as a result of a superficial reading of Ricardo, it is the "surface appearance,"³⁹ whereas "real intentions" may be discovered through "a close reading"⁴⁰ or may "require closer attention."⁴¹

Finally, as a common method of practice, along with the utilization of the foregoing categories, Ricardo, according to Hollander, makes use of the ceteris paribus assumption. Hollander assures that Ricardo needed the ceteris paribus assumption for internal consistency as well as for clear exposition and not for predictive purposes. Ricardo was very conscious that he was freezing relevant variables for the analytical simplicity:

It is my objective to demonstrate that Ricardo intended no 'definite predictions' ... Ricardo made allowance for disturbances to the ceteris paribus conditions which must be fulfilled to justify any prediction.⁴²

B. Ricardo's Basic Model

1. General Considerations:

According to Hollander, the key to David Ricardo's economics is to understand the growth model with which all his main analytical contributions can be explained. He

devised a growth model in which wages and profit rates are endogenously determined and "both the wage and the profit rates exceed[ed] their respective minima in a growing economy."⁴³ With a growth model Ricardo examined the state of an economy which did not yet adjust to changes in capital and population and did not yet reach the long-run steady state. Ricardo's main contribution, according to Hollander, is his description of economic processes in terms of a model in which all key variables -- the wage rate, the rate of profit, and the rates of growth of population and capital -- are simultaneously determined by the interplay between the distributive variables, population growth, and accumulation of capital. This model had much "in common with that of the general equilibrium theorists [of the marginalist tradition]."⁴⁴

Ricardo's real concern, according to Hollander, was with the analysis of the growth process by using causal linkages. In order to make this complicated problem as clear as possible, Ricardo established certain principles as components of his model as simply as possible. These principles could best be established in terms of "exaggerated" assumptions, "strong cases" and a heavy dose of the "ceteris paribus" assumption. Thus, at times Ricardo constructed artificial, highly unrealistic and rigid cases, and designed tables with arithmetic examples. Once he believed the explaining principles were clearly exposed, he would release his simplifying assumptions one by one (i.e., "first," "second approximation") and investigate how the principles moved in his growth model. Hollander thus maintains that Ricardo's "strong cases" and "simplifying assumptions" should not be confused with his general model. They are to be regarded as "pedagogical devices" to facilitate explanation of his "main model" and much of the misunderstanding about Ricardo's meanings comes from misappreciation of Ricardo's practice of simplifying for analytical convenience.

If the analysis of the economic growth process in terms of money wages (which were not data but were endogenous to his system) was his main theoretical model, the inverse profit-wage relationship, which Hollander calls "The Fundamental Theorem on

Distribution"⁴⁴ lies at the heart of his system. So, for Hollander, "The Fundamental Theorem on Distribution" was a sort of trump card which linked distribution to growth and his theory of value was a simplifying device. It was "a standard measuring procedure," used to measure equilibrium values of key variables following a disturbance to the wage rate.⁴⁶

Hollander identifies Ricardo's main model in terms of the following:⁴⁷

2. Assumptions

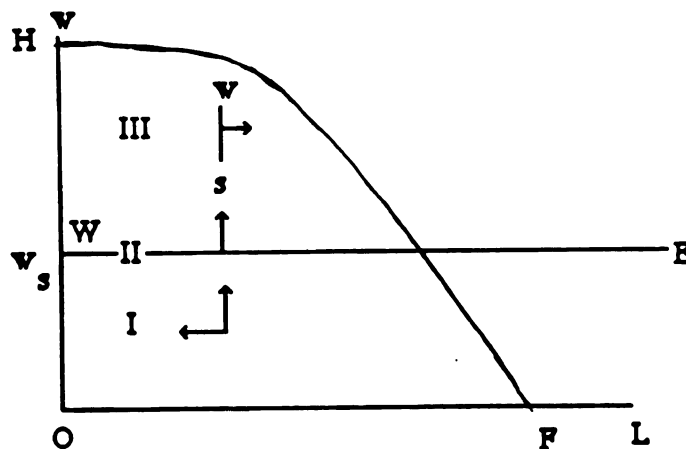
1. One commodity: corn.
2. Only land and labor are used as "factors of production" (and land is kept constant).
3. Diminishing returns is assumed throughout.
4. A subsistence wage = natural wage which keeps population stationary.
5. A "subsistence profit."
6. Workers, rather than being unemployed, accept any wages. Workers and landowners consume what they get. Capitalists save and invest only profit over and above the "subsistence level of profit."
7. There is no fixed-wage.
8. (a) Wages are determined by labor supply and demand. Labor supply is a positively sloped function of the difference between the market and subsistence wage. Labor demand is a function of profit rate. (Population growth is an increasing function of the difference between the market and subsistence wage.)
(b) Capital will increase or diminish as the actual profit rate is above or below the subsistence profit rate (which corresponds to "subsistence level of capital.")
9. Production function is a continuous aggregate production function (well behaved: twice differentiable, the first derivative = marginal product of labor is greater than zero; the second derivative is negative, indicating that diminishing returns prevail.)

10. Wages fund = wage rate x numbers of labor employed.
11. Capital consists entirely of the wage bill (fund).

Statement 6 and 8b. means that when the rate of profit is above subsistence, the marginal propensity to save and invest becomes positive and increases as the differential increase.

3. The Working of the System

Hollander's interpretation of the working of Ricardo's Growth Model can be explained geometrically with the help of a diagram:⁴⁸



where w is the market wage L is quantity of labor w_s is the subsistence wage r_s is the "subsistence profit." WE is the locus of $w = w_s$ and HEF is the locus of $r = r_s$ which correspond to maximum wage rates. Because of the assumption of diminishing returns HEF is downward sloping.⁴⁹ H is above WE , otherwise there will be no capital using production.

Now, at any given time economy may "start" from regions I, II or III. If it starts from the region I where the market wage is below the subsistence wage, according to assumptions 6 and 8a., population declines. Wage fund (assumption 10) will be shared by less workers, thus market wage increases, so system moves up until it reaches to $w = w_s$ (Region II). At $w = w_s$ population, according to definition of natural wage (assumption 4)

becomes stationary. As economy takes off with increased production due to the increased "efficiency" of capital wages rise thus entering region III. HE and WE are called "the floor" and "the roof," and they are the "barriers." Once the system is in region III, it will never break through $w=w_s$ and $r=r_s$ except in one case in which there may be "a hole" in the roof!

The reason Hollander calls HE and WE "barriers" is that if wages were to decline (assuming growth of capital accumulation is less than growth of population but still is positive), this decline will be "repelled" by the floor because as wages get closer to w_s , population growth declines toward zero (by the definition of natural wage) and at the same time, capital accumulation increases. Therefore, somewhere at $w > w_s$ population growth and capital growth will be equal and decline in wages stop. Until the stationary state (E) is reached, wages are continuously above subsistence level. In the case of the "roof" being a barrier, along HE capital is stationary (no saving, thus no investing) but $W > W_s$, therefore population increases. With the increase in population and if capital remains stationary, the wage fund will be shared by more workers, thus wages decrease. Roof would be a "barrier."

Hollander states that in this model there is no fixed capital; capital is just "advances to labor." Assuming a production function with one input (labor), of course, does not make it a fixed coefficient production function. In the case of a fixed coefficient production function, one cannot define marginal product of labor and marginal product of capital since by definition an increase in one input, holding others constant, will have no impact on the output. In this model, a continuous aggregate production function is assumed, which allows Hollander to define marginal product of labor. The wage is just the discounted marginal product of labor, thus general profit rate is $F'(L) = w(1+r)$ where w is the market wage, r is the market profit rate. So, capital being equal to wL makes profit equal to rwL . If L is constant, wL (capital) is increasing w must be rising. Hollander states that Ricardo did not give much thought to fixed capital, but if he did, the same diagram "could

in principle be constructed," and "he would have proceeded in Marshall's manner"⁵⁰ by distinguishing short and long run clearly and by specifying appropriate capital structures with respect to given w and L . Finally, it is stated that the model is inherently static but carried out consistently and "we must remember that every point on the diagram -- every point on the path -- is a position of long period equilibrium, in Marshall's sense."⁵¹

There are several key issues involved here. It is clear that this model essentially depends upon: 1) The wage rate being variable and continuously above the subsistence level until the economy reaches the stationary state; and 2) the inverse profit-wage relation assuring the stability of the system. The model has the prices of commodities and distributive shares of "factors of production" determined simultaneously in a demand-and-supply framework. Thus, the model rejects the corn model interpretations of Ricardo's theory of distribution, and a related contention that in Ricardo distribution is separate and prior to the pricing of commodities.⁵² If the corn model is rejected, what exactly was the genesis of Ricardo's theory of profits? Another logical question is how do Ricardo's theory of value and invariable measure of value fit in? In what remains, we shall discuss these issues and in doing so, clarify how Ricardo's general principles (according to Hollander), fit into his main model.

C. Role of Natural Wages

In the foregoing model, analysis had to start from a particular position. In other words, the position of economy "now" as opposed to the stationary state had to be established. Hollander assumes that the economy starts from a position in which both capital and labor are increasing.⁵³ It is stated that Ricardo thought in terms of the conditions in Great Britain and America of his time. Therefore, according to Hollander the economy was somewhere above the line $w=w_s$ and below $r=r_s$ (region II) "now." In that region real (commodity) wage is above subsistence level but declines as a result of the

decelerating growth rate of capital, and is equal to subsistence when the stationary state is reached.

It is known that Ricardo had different definitions of the natural wage in the Essay than in the Principles (Chapter V: On Wages). In a well known passage in the Essay Ricardo wrote:

We will, however, suppose that no improvements take place in agriculture, and that capital and population advance in the proper proportion, so that the real wages of labour continue uniformly the same; that we may know what peculiar effects are to be ascribed to the growth of capital, the increase of population, and the extension of cultivation, to the more remote, and less fertile land.⁵⁴

According to above given passage, the natural wage is the one which corresponds to the growth rates of capital and population. There are other passages in the Essay to the same effect:

In the stationary state [wages] are regulated wholly by the increase or falling off of the population. In the advancing state, it depends on whether the capital or the population advance at the more rapid course. In the retrograde state, it depends on whether population or capital decrease with the greater rapidity. As experience demonstrates that capital and population alternately take the lead, and wages in consequence are liberal or scanty, nothing can be positively laid down, respecting profits, as far as wages are concerned. ⁵⁵

In the above passages, the role assigned to wages is somewhat passive. Natural wage rate is the rate which corresponds to growth rate of capital being equal to growth rate of population. Also evident from the famous Table in the Essay, the real wage rate is assumed to be constant, but the rate of change of wage rates adjusts to growth of population and capital.

Ricardo introduces a different definition of natural wages in the Principles. This definition is stated at the beginning of Chapter V ("On Wages"):

Labour, like all other things which are purchased and sold, and which may be

increased or diminished in quantity, has its natural and its market price. The natural price of labour is that price which is necessary to enable the labourers, one with another, to subsist and to perpetuate their race, without either increase or diminution.⁵⁶

In this definition, natural wage is the adjusting factor; changes in wages keep population constant. One does not have to know the growth rate of population for a given wage rate; the natural wage rate, according to this definition, adjusts the level of labor supply (population) to labor demand.

According to Hollander, the first definition of the natural wage is a "simplifying argument." Ricardo "consciously restricted the analysis of growth in order to focus upon the effects of diminishing returns alone." Hollander maintains that "the argument was designed to refute Smith's doctrine relating to the 'competition of capitals,' on the grounds that it implied the possibility of an inadequate aggregate demand as a causal influence upon the profit rate, and Ricardo here took for granted that long-run real wages are constant."⁵⁷ Hollander maintains that Ricardo's accumulation theory (growth theory) cannot be stated in terms of rapid population responses to temporary divergencies in the market wage over the long-run constant natural wage. In order to understand his accumulation theory correctly, one has to turn to the conception of wages as it is stated in the Principles. Hollander points out the following passage from Ricardo:

If wages were regulated by a yearly increase of capital, at the rate of 2 per cent., they would fall when it accumulated only at the rate of 1 1/2 per cent ... and would continue to do so until the capital becomes stationary, when wages also become stationary, and be only sufficient to keep up the numbers of the actual population.⁵⁸

According to Hollander, Ricardo assumed that as the growth rate of capital declines (which is the normal secular pattern in Ricardo), money wages decline. But one should not stop here since the decline in money wages "will in fact be more than counterbalanced by the expected upward movement reflecting the continuous rise in the price of wage goods."⁵⁹ So, Hollander concludes emphatically:

It is crystal clear that the fundamental prediction of rising money wages upon which so much depends in the Ricardian vision of expansion -- particularly the fall in the profit rate -- is made despite the decline in commodity which is assumed to occur.⁶⁰

Thus, Hollander shows how an apparent paradox in Ricardo's work can be explained: There is a tendency of the profit rate and the real wage rate to decline as societies advance towards the stationary state. Declining real wage would be inconsistent with the inverse wage-profit theorem unless it can be shown that wages do in fact increase. By attributing a clear differentiation of money and commodity wages to Ricardo, Hollander shows that money wages increase despite the decline in commodity wages, thus the inverse theorem holds. In the case of the corn models money and commodity wages being the same, such differentiation would not be possible.⁶¹ If however, by "money" Ricardo means the commodity gold then the value of the commodity will depend upon the nature of the value theory in Ricardo.

Before going into Ricardo's theory of profit it should be pointed out that in the Principles, in the same chapter "On Wages" (Chapter V), Ricardo gave a numerical illustration⁶² assuming that commodity wage remains constant. This contradicts Hollander's interpretation of declining commodity wage. Hollander recognizes this point and tells us:

It is unfortunate that Ricardo chose ... to give the famous numerical illustration ... on a causal view basing on the assumption of that the actual wage basket remains constant ... It is also true that in the strategic chapter 'On profits', Ricardo ...used the same illustrative data ...The probable explanation is that he used a set of figures conveniently at hand, taking for granted that little damage was done since he believed that money wages will rise even though real wages decline.⁶³

Nevertheless, Hollander concludes, emphasizing how his position dissents from the "standard interpretations":

All the evidence thus points to the conclusion that average commodity wages, in Ricardo's view, tend to decline in the course of secular expansion in consequence of a decelerating growth rate of capital (this is characteristic also of the analysis of

the Essay on Profits). This pattern does not accord with the standard interpretations of Ricardo which envisage long-run commodity wages to be constant at the 'natural' level.⁶⁴

D. Ricardo's Theory of Profit, the Inverse Profit-Wage Relationship.

According to Hollander, for Ricardo the main function of the theory of value was to provide a necessary preliminary for the analysis of distribution; particularly the analysis of profit rate determination, and to measure the effect of wage rate changes upon the rate of profit. Ricardo's theory of value and distribution was designed to "relate the rate of return on capital to the 'value' of per capita wages ... and variations in the rate of return to (inverse) variations in the 'real' wage rate. This relationship will be referred to as 'the fundamental theorem on distribution'."⁶⁵ Hollander maintains that Ricardo formulated his "fundamental theorem" as a direct challenge to the received doctrines of Smith. Smith had theorized that wage rate increases are passed on by capitalists in the form of higher prices in manufacturing sector and lower rents in agriculture. Hollander believes that this (that the wage rate increases not being inflationary) was "the essence of Ricardian contribution" and strongly emphasizes that "in formulating his challenge Ricardo utilized principles of resource allocation learned from the Wealth of Nations itself."⁶⁶

Hollander's interpretation of Ricardo's theory of profit can be summarized as follows: as capital accumulates and population increases, the land already under cultivation needs to be cultivated more intensively, and leads to increases in the prices of wage goods. This results in increased money-wage rates and causes inverse movements in the profit rate. The essence of Ricardo's argument is that variations in the money-wage rate (determined by the price of wage goods) are not reflected in the final price, so that profit rates move inversely without relying upon the physical quantities of corn. Hollander argues that Ricardo's position in the Essay on Profits and his earlier correspondence is "substantially the same position as that ultimately appearing in the Principles."⁶⁷ He claims

that the genesis of Ricardo's theory of profit can be found in his early correspondence in 1811 and the bullion controversy. Without changing the substance, Ricardo developed his theory of profit in the Essay with an already developed theory of value used as means of measuring income shares. The same position appeared in the Principles. Hollander makes it plain at the very beginning of his chapter "On the New Theory of Profits" that his interpretation does not agree with the "standard corn model" interpretations in general and Sraffa's interpretation in particular. He claims that the origins of Ricardo's theory of profit go back to his Quantity Theory of Money and bullion controversies. Ricardo used the "corn" argument only as a "pedagogical device" because at that time he was in possession of a labor theory of exchange value. He never adhered to the idea that agricultural profit determines other profits:

[Ricardo's] argument depended upon the supposition that changes in money wage rate do not generate changes in final price, a supposition ... hinged upon a labour theory of exchange value.⁶⁸

Hollander states that the "existence of formal statement of the principle of the determining role of agricultural profits was obviously at no time questioned. But ... Ricardo did not intend by his formal statement that the profit rate in agriculture literally determines the rate elsewhere."⁶⁹

Since Hollander considers the establishment of the genesis of Ricardo's theory of profit a crucial issue, one which has "profound implications for any evaluation of the intended scope of [his] model construction,"⁷⁰ it will be useful to see how Ricardo developed his theory in 1811-13.

1. Pre-Essay position

According to Hollander, during the famous bullion debates Ricardo discovered that as the price of corn goes up (as a result of increased difficulty of production leading to increases in the money wage rates) a general rise in money prices would be an impossibility. This is because according to his quantity theory of money, an increase

would require an increase in the quantity of money. Thus, when general prices remain constant and money wages increase, profits had to decline. When measuring relative changes in prices, out of necessity Ricardo utilized a conception of value. Hollander referring to an early letter to J. Mill (Sept. 11, 1811), concludes that Ricardo was "keenly aware of the notion of the relativity of value" and differentiated between "value" and "price." He also was aware of the need for an "invariable measure of value" but knew that it was actually impossible to devise such a measure.⁷¹ So, according to Hollander's "attractive reconstruction,"⁷² Ricardo simply put the two principles together:

1) Change in money supply was an essential condition in order to change the price of corn,⁷³ 2) and the principle of diminishing returns was assumed throughout. This second principle, according to Hollander's "reconstruction," comes from Coutts Trotter's formulation of diminishing returns.⁷⁴ Hollander maintains that Ricardo did not agree with the some of Trotter's conclusions (such as "the currency of the country is in no degree depreciated by the use of paper"⁷⁵) but accepted his general principle that increasing population pushes cultivation of poorer soils and that results in increases in the cost of production.

After considering the year 1811, Hollander turns to Ricardo's pre-Essay correspondence. In order to explain the development of Ricardo's thoughts and "intentions," Hollander introduces an interpretive device which distinguishes conceptually between "strong propositions" and "weak propositions." Both are concerned with the contents of the wage goods (called "wage-basket") consumed by workers. As mentioned by Sraffa,⁷⁶ in a letter written to Trower (in 8 March 1814), Ricardo declared that "it is the profits of the farmer that regulate the profits of all other trades," thus making agricultural profit the prime determinant of profit in other sectors. Hollander calls this "the strong proposition,"⁷⁷ and immediately ascribes a "more sophisticated strong proposition" to Ricardo, that "the state of agricultural productivity on the margin of cultivation is the unique determinant of the general profit rate."⁷⁸ Thus, in Hollander's interpretation,

"farmer's profit" is assumed to be the same as "the state of agricultural productivity" presuming that marginal productivity determines profit rather than proving it. Ricardo's "weak proposition" is that "the state of agricultural productivity exerts an influence on the general profit rate although not to the exclusion of other forces."⁷⁹ Hollander argues that in the correspondence prior to the Essay, Ricardo maintained a "weak" proposition (implying that goods other than corn are admitted into the "wage-basket"), in spite of his statement in the foregoing letter to Trower. As will be seen below, Ricardo maintained a "strong" proposition at the beginning of the Essay but in the post-Essay correspondence reverted to "weak proposition" and finally in the Principles re-adapted the "weak" proposition. So, with the exception of a few instances, the "weak" proposition was used primarily. This being the case, Hollander maintains that Sraffa's interpretation was incorrect.

It will be recalled that Sraffa maintained a possible explanation (a "rational foundation") of the principle of determining role of agricultural profit: in agriculture, corn represented both input and output, so that the determination of profit is done directly between the quantities of corn without any question of valuation because all other trades used the product of agricultural sector but not vice versa. Therefore, if there was to be a uniform rate of profit in all trades, exchangeable value of the products of other trades relative to their own capitals must be adjusted to yield the same rate of profit established in the agricultural sector. To support his conjecture, Sraffa mentioned Malthus' letter to Ricardo (dated 5 August 1814), and Ricardo's earlier letter to Malthus (dated 26 June 1814).⁸⁰

Hollander maintains that Ricardo's formulations in the letters dated 26 June 1814 and 25 July 1814 (which were answered by Malthus on 5 August 1814) represented isolated incidences the importance of which should not be exaggerated:

Ricardo's formulation of July represents a rather casual and inadequate restatement - the significance of which should not be exaggerated - of his basic and consistently maintained position

and as far as the letter dated 5 August 1814 is concerned, Hollander maintains that:

Malthus was objecting to Ricardo's refusal to accept his own ill-defined theory of effective demand, that is Ricardo's tendency - In Malthus' terms -- (to underrate the wants and tastes of mankind in affecting prices, and consequently in affecting the means of profitably employing capitals'. We should read no more into the criticism. 81

Hollander claims that because Ricardo never really maintained a "strong" proposition, he did not "literally" mean that agricultural profit determines other profits, and all arguments on this issue are unwarranted. He also assumes that Ricardo, at the time of the correspondence, was in possession of the theory of value, and therefore did not have to resort to a corn model (corn appearing on the both sides of the account). In Hollander's opinion, the whole problem can be reduced to the following issues: 1) The content of wage basket, and 2) whether the agricultural rate does or does not "take the lead." As far as the first issue is concerned it is Hollander's belief that in Ricardo: "the profit rate in agriculture does not strictly determine the profit rate elsewhere. Rather the general profit rate varies inversely with the movement in money wages. In this case all depends upon the contents of the wage basket."⁸² As far as the second issue is concerned, by quoting Ricardo, Hollander maintains that he did not believe the agricultural rate always takes the lead. So, Ricardo's consistently maintained position is the "sophisticated weak position."

2. Ricardo's position in the Essay on Profit:

In the Essay on Profit, according to Hollander, Ricardo assumed that no improvement in agriculture takes place and population and capital advance in proper proportions, so that real wages remain uniform. As mentioned earlier, Hollander believes Ricardo deliberately restricted his analysis in order to see how growth of capital and population and extension of cultivation effect the economy.

Hollander explains Ricardo's intentions by giving the following quotation from Ricardo from the Essay:

I am only desirous of proving that the profits on agricultural capital cannot

materially vary, without occasioning a similar variation in the profits on capital, employed on manufactures and commerce.⁸³

He devised a model of the agricultural sector which yields a declining profit rate as capital and population expand and are applied to increasingly disadvantageous plots of land. The use of corn was simply as a numeraire.⁸⁴ Ricardo did not believe that the general rate is "literally" governed by the agricultural rate.

Hollander admits that at the beginning of the Essay Ricardo used the "strong proposition" in the "unsophisticated version," but his "unsophisticated version" actually implied the "sophisticated version." So, the argument at the beginning of the Essay was in terms of the "strong proposition" and by implication it was "sophisticated." Later in the Essay, Ricardo moves into the "weak" formulation as the model became complicated:

[Ricardo] relate[s] the reduction of profits in agriculture solely to the (inverse) movement in money wages: 'If by foreign commerce, or the discovery of machinery, the commodities consumed by the labourer should become much cheaper, wages would fall; and this, as we have before observed, would raise the profits by the farmer, and therefore, all other profits.'⁸⁵

Later on, he moves from the "weak" formulation to the "sophisticated weak" version by arguing that:

the manufacturing rate falls secularly, as a result of rising money wages (in turn due to the rising corn price) in the face of constant commodity prices; it is also taken for granted that the exchange value of a commodity reflects the 'difficulty of production', which accounts for the rising price of corn, and the stable price of manufactured goods.⁸⁶

According to Hollander, he thus approaches his final position in the Principles. In the last quoted passage, Hollander claims that Ricardo was already in possession of a value theory in terms of 'difficulty of production.' This is also implied by Hollander's assertion that in the Essay, corn was only a numeraire. It must be noted that without a theory of value, it would have been impossible to establish the inverse profit - wage relationship unless one uses Sraffa's scheme of corn appearing on the both sides of accounts. By rejecting the corn model altogether, Hollander claims that Ricardo had already established the theory of value long before the Principles.

Hollander faces two difficulties with this interpretation:

1. James Mill, in a letter dated 22 December 1815, urged Ricardo to write a treatise on Political Economy: "As you are already the best thinker on political economy, I am resolved you shall also be the best writer."⁸⁷ Ricardo, in response to J. Mill's letter, wrote in 30 December 1815: "I am much pleased with the idea of having a task set me on which to write, and I would immediately begin ... I know I shall be soon stopped by the word price, and then I must apply to you for advice and assistance."⁸⁸ Now, of course, the question presents itself naturally: If Ricardo's position had been "substantially the same" in pre-Essay, Essay and the Principles, how could Ricardo expect to be imminently "stopped by the word price?" Hollander has no answer for this. He only says: "I believe (and have demonstrated in my paper) that the early references to the problem of value are more extensive and systematic."⁸⁹

2. The second difficulty with Hollander's interpretation (that Ricardo possessed a labor theory of value long before the Principles) can be understood by studying the Ricardo-Malthus correspondence between 15 March 1815 and 16 July 1815. Malthus, in a letter dated 15 March 1815, commented on Ricardo's Essay, reassuring that "any remark [Malthus] make[s] upon [Ricardo's] publication ... will [be] written in that spirit of respect and friendship."⁹⁰ He then posed a question which prompted intense correspondence between the two for three months. In summary, Malthus' problem is as follows: as the poor soils are cultivated, the price of corn rises relative to the prices of manufactured goods, making it cheaper to employ more capital in agriculture. Rise in the capital component may make the surplus from land larger, and may thus lead to higher profits in agriculture, and therefore profits in the manufacturing sector increase. Therefore, Malthus asks, would not such a situation contradict the conclusions of the Essay? One must mention here, that Malthus wrote a letter to F. Horner one day before he wrote to Ricardo (dated 14 March, 1815) and, commenting on Ricardo's Essay, claimed that "the fault of Mr. Ricardo's table, which is curious, is that the advances of the farmer instead of being

calculated in corn, should be calculated in the actual materials of which the capital consists, or in money which is the best representative of a variety of commodities. The view I have taken of the subject would greatly alter his conclusions."⁹¹ Here, Malthus clearly interpreted Ricardo's Table in the Essay in terms of physical quantities of corn. In the next letter (17 March 1815), Ricardo answers Malthus' question negatively, claiming that an increase in the price of corn does not necessarily lead to a lowering of corn expenditure to total produce obtained. Ricardo and Malthus exchanged nineteen letters in these three months. Their intense correspondence was conducted in terms of aggregate concepts like "expenditure of production in terms of corn,"⁹² and "corn cost of money."⁹³ At one point, Ricardo even wrote: "the price of corn would not I think rise in proportion to the greater number of men employed but to the greater amount of wages paid."⁹⁴ This is, of course, the labor-commanded perspective which Ricardo persistently opposed in the Principles. Careful examination of these letters indeed shows that they were rather unprepared to handle the question at hand in terms of relative values.⁹⁵ One possible explanation (if it ever existed in Ricardo's mind), for the switch Hollander to be from "weak" to "strong" to "weak" again may be due to Ricardo not yet having full possession of a labor theory of value. At any rate, in his correspondence and in the Essay, the confidence with which he opens his first chapter, declaring boldly that "the value of a commodity ... depends on the relative quantity of labour which is necessary for its production, and not on the greater or less compensation which is paid for that labour," is absent.

Hollander concludes that Ricardo's position during the pre-Essay, Essay and the post-Essay and the Principles is the same: "Ricardo did not intend by his formal statements to maintain that the profit rate in agriculture literally determines the rate elsewhere."⁹⁶

3. Ricardo's Position is the Same in the Principles.

According to Hollander, in the Principles Ricardo did allow other goods to enter into the wage basket (weak) but that did not change the price of commodities, even though

the money wage rate was increasing. This is because "the position that an inverse relationship might be defined between money wages and the profit rate called for a demonstration that an increase in money wages is not passed on to consumers in the form of higher level of prices."⁹⁷ Ricardo, in the Principles, using the labor measure of value, showed that there will be no alteration in relative prices. Hollander maintains that Ricardo's theory of profit remained untouched despite successive changes in his theory of value in subsequent editions. Before going into Hollander's interpretation of Ricardo's theory of value, another difficulty with Hollander's interpretation should be noted. Hollander claims that in the Principles, Ricardo did allow other goods into the wage basket and thus maintained his "weak" proposition. But the principle of the determining role of farmer's profit disappeared altogether in the Principles, whether in weak or strong form. Ricardo never used this argument again in any form.

E. Theory of Value

1. Nature of Ricardo's Theory of Value

Hollander starts with the "purpose" of Ricardo's theory of value. Ricardo's discussion of value theory was to provide a "necessary preliminary" for his main theme, "the inverse profit-wage relationship," and "not a topic considered for its own intrinsic interest."⁹⁸ It was a "prologue" to the subsequent chapters on distribution and especially on profit. Ricardo, according to Hollander, designed his theory of value to counter Smith's "rejection of the labour theory of exchange value in a capitalist economy with private property in land" to explain "the conditions under which a labour theory retains its validity." Furthermore, Hollander believes that Ricardo chose labor theory because such a theory proposed:

the use of labour theory as the basic structure in the analysis of the rate of profit - that is, it attempt[ed] to justify the use of a labour measure of value, in terms of which there will be no alterations in relative prices, and therefore in the value of the output to be shared, in the face of changes in distribution.⁹⁹

He was primarily concerned with the changes in the structure of relative prices rather than its pattern at any time.

Hollander argues that Ricardo's primary concern was to show that Smith's position that all prices rise with the rise of wage rate was erroneous. His ultimate objective was to show that prices had to stay constant so that changes in wages would affect the profit rate inversely. Hollander states that Ricardo's objection to Smith's limitation of his theory of value to "early and rude states" was not merely definitional but "lay at a deeper level than that."¹⁰⁰ Ricardo proceeded very systematically. First, he stated that the value of commodities would be proportionate to labor embodied. But it was fallacious to restrict the labor theory of value to only "early and rude states" as if "when profits and rent were to be paid, they would have some influence on the relative value of commodities, independent of the mere quantity of labor that was necessary to their production."¹⁰¹ Ricardo's plan, maintains Hollander, was therefore to consider what modifications of the pure labor theory of exchange value were called for by the introduction of rent and profits, so that it would still be applicable to advanced economies. The pure labor theory of value assumed that the ratio of fixed to circulating capital was equal across different sectors, so that increasing wages would leave the price of commodities unchanged.

Hollander acknowledges that unequal ratios of fixed to circulating capital represented a complication for Ricardo's pure theory and that Ricardo introduced his famous "modifying principles" by taking varying durabilities of fixed capital into consideration and announced his results "enthusiastically." Hollander quotes Ricardo:

It appears, then, that in proportion to the quantity and durability of the fixed capital employed in any kind of production, the relative prices of those commodities on which such capital is employed, will vary inversely as wages; they will fall as wages rise.¹⁰²

Now, Hollander maintains that Ricardo, in the Principles, after having introduced his modifying principles, and recognizing differences in factor ratios across different sectors, ignored them completely in the remainder of his book. Instead, he assumed identical factor proportions throughout his work:

Despite his preoccupation in the first chapter of the Principles with disturbances to the price structure upon a wage increase, it is a striking fact that Ricardo proceeded in the remainder of his work (including the culminating chapter, 'On Profits' and of the first six chapters that define the theoretical core applicable to a closed economy) by avoiding the complication entirely. The knot was cut by the simple expedient of assuming identical factor proportions across the board.¹⁰³

The assertion that Ricardo assumed "identical factor proportions across the board" plays an extremely important role in Hollander's interpretations. As will be seen below, Hollander's most original interpretive results depend upon this alleged assumption of equal capital-labor ratios. In a footnote to the last quoted assertion, Hollander wrote:

It is this solution which Ricardo doubtless had in mind when he wrote to James Mill in October 1816 that the curious effect of a wage rate increase upon the prices of relatively capital-expensive goods entails no serious impediments to his main theme.¹⁰⁴

In that letter, Ricardo indeed wrote to Mill:

I have been beyond measure puzzled to find out the law of price. I found on a reference to figures that my former opinion could not be correct and I was full a fortnight pondering on my difficulty before I knew how to solve it. During that time I could not proceed or I should have made greater progress.¹⁰⁵

and sent him a parcel containing his manuscripts. Ricardo was so excited that he wrote two more letters to Mill before Mill read his manuscripts and responded on Nov 18, 1816. Ricardo's excitement and puzzlement over the difficulties of the "law of price" was due to the magnitude of the claim he was making: He was opposing to Smith and Say: "The whole of the principles which I hold to be correct against the great authorities which are opposed to me."¹⁰⁶ Ricardo, it appears, was not relieved because he thought of assuming

the identical factor ratios on which the remainder of his complete work depended (since at the time he only sent his first "very rough" draft to Mill). He was relieved because he had found an explanation for the "curious effect" which he announced to Mill so enthusiastically:

You will see the curious effect which the rise of wages produces on the prices of those commodities which are chiefly obtained by the aid of machinery and fixed capital. I hope you will be able to make out what I have said on the subject and will give me your well considered opinion on this difficult point.¹⁰⁷

It should further be noted that Hollander did not cite even a single sentence from Ricardo in support of his assertion.

Hollander's interpretation of Ricardo is made ambiguous because Hollander is not very explicit at times about just what Ricardo's theory of value was. It is not always clear whether he regards Ricardo's theory of value to be a labor-embodied or labor-commanded theory or a labor theory at all. In connection with Torrens' criticisms¹⁰⁸ of Ricardo's labor-embodied theory of value, Hollander wrote that "Ricardo did not regard the challenge as a serious one, in the light of the fact that he had never formulated a strict labour theory"¹⁰⁹ A few pages later he writes that "there is thus ample support for the view of Piero Sraffa that between the first and third editions there was no 'retreat' from the strict labour theory."¹¹⁰ Again, a few pages later Hollander wrote:

It is true that Ricardo seems to accord labour a special role in value creation - treating it as, in some sense, the source of value. But the question that immediately arises is whether Ricardo would have utilized a labour measure of value despite the special 'normative' significance of labour if the labour theory of exchange value had little empirical validity. It seems quite clear that he would not.¹¹¹

In a footnote to this passage, further explanation is offered as to the meaning of the "source of value": "Why Ricardo chose to base himself upon a labour-embodied definition of value, is not easy to answer."¹¹² This makes it appear as if a "labour-embodied" theory of value deals with in some sense a metaphysical question of "source of value." Of course, from his earlier statement we know that Ricardo's theory of value was "not a topic considered for its own intrinsic interest." Elsewhere¹¹³ Hollander suggests that

"embodiment of labour" is "irrelevant" to Ricardo's value theory since Ricardo's cost is really the opportunity cost: "It would be inviting to identify Ricardian cost price with labour embodied, as Malthus in fact did, but it would be incorrect to do so, [because] his cost price makes no sense except in opportunity cost terms." Oftentimes if a special discussion topic did not make it absolutely necessary to use the word "value," Hollander chooses to avoid the term and uses the word "pricing" instead, or to put the word value in inverted commas often preceded by the word "money."¹¹⁴ But from his discussions and the remainder of Chapters 5 and 6 of his book, it appears Hollander generally maintains that Ricardo had an "empirical theory of exchange value" and his choice of labor theory and invariable measure(s) of value should be understood in this context. Hollander mentions emphatically, several times, that Ricardo utilized his theory of exchange value for empirical¹¹⁵ reasons.

Hollander maintains that Ricardo was seeking to establish a measure of value and that he defended it to Malthus on several grounds: First, that he was in pursuit of a hypothetical measure, knowing that such a measure may not exist in practice. Second, that his measure was an approximation¹¹⁶ of the ideal. Third, in order for his inverse profit-wage relation to be valid, Ricardo knew that he did not need a measure and in case his "approximate" measure failed he was prepared to defend the principle.¹¹⁷ Hollander says that Ricardo's inverse profit-wage relation depended upon his statement on the constancy of the price of commodities and that Malthus was well aware of this, criticizing Ricardo for such an "extravagant" assumption. Hollander writes that in the face of Malthus' criticisms, Ricardo "took the view for practical purposes" and adapted a measure because it "provided closest possible approximation to the ideal."¹¹⁸

Hollander concludes that since labor was at that time the most important input, Ricardo assumed that value of commodities would be influenced more by the changes in labor than the changes in other factors of production. Hollander thus endorses Stigler's contention that Ricardo had a 93% labor theory of value and Ricardo's choice was purely

on empirical grounds: "Ricardo insisted that the primary cause of relative price variations would be found in changes in labour input, so that the exercise was not in vain."¹¹⁹ Ricardo's (labor) theory of value, in Hollander's opinion was an "exercise."

2. Invariable measure of Value:

Hollander states that Ricardo's search for an invariable measure of value should be interpreted in the same context as his labor theory: "[An] attempt to justify on empirical grounds the continued recourse to a labour theory of exchange value as the basis for the solution to his main problem." This, as we saw above, assumed constancy of aggregate values when wages change, thus keeping the inverse theorem in tact.

For Ricardo, according to Hollander, the invariable measure of value was not an important consideration, and for his basic theorem to be valid he did not need an invariable measure of value. Ricardo assumed gold to be invariable, knowing that it was not. Later in his career, Ricardo assumed that a commodity produced by labor employed for a year (a year being the mean between extremes) was invariable. Thus, Ricardo was not interested in finding the actual commodity which is invariable to changes in the value of labor; he was seeking to establish the properties of such a measure. Because the actual commodity was not what Ricardo sought to find, Hollander considers the subject of the invariable measure of value itself to be unimportant for Ricardo. As a proof, Hollander emphasizes that "the precise choice of measure was immaterial to his main theme,"¹²⁰ "any measure will do, claimed Ricardo."¹²¹ Thus, pursuit of an invariable measure of value was another "attempt to justify on empirical grounds the continued recourse to a labour theory of exchange value."

Hollander sees no similarity for Ricardo between the search for an invariable measure and the "transformation problem." There was no such problem for Ricardo because such a problem arises when capital-labor ratios differ among sectors. The role of invariable measure in the transformation problem is explained very clearly by Blaug:

Ricardo realized that a rise in money wages consequent upon a rise in real wages will not only distort the price structure by raising the prices of labour-intensive commodities relative to those of capital-intensive commodities but will also raise the general level of prices. To eliminate this latter effect, he measured all his prices in terms of a fictional commodity produced by a ratio of capital to labour that is a mean of the entire spectrum of capital-labour ratios in the economy, its own capital being in turn produced by a mean capital-labour ratio, and so on ad infinitum. This is the celebrated "invariable measure of value." When prices are expressed in it, we get a clear-cut Ricardian trade-off between the profit rate and the wage rate, which we nowadays label "the factor price frontier."¹²²

Hollander, however, maintains that:

It would seem that Ricardo was not emphasizing the famous solution formulated subsequently by McCulloch and Marx to deal with the case of differential factor proportions from commodity to commodity; according to this solution the rise in the prices of 'labour-intensive' commodities are, as it were, balanced by the reduction in the prices of 'capital-intensive' commodities following a wage rate increase leaving the general average unchanged.¹²³

The problem did not exist because Ricardo assumed "identical factor proportions across the board."

For the same reason Hollander considers Ricardo's last paper on "Absolute Value and Exchangeable Value" to be "inconclusive" and not to be considered as a "main source" of reference. Hollander always makes it clear that this paper was "unpublished and incomplete."¹²⁴ Hollander wrote that the fact that, "Absolute Value and Exchangeable Value, [was] unpublished in his lifetime ... constitutes poor evidence for the corn-model interpretation,"¹²⁵ apparently finds it objectionable to give weight to the unpublished materials of Ricardo.

F. "Allocation Mechanisms" In Ricardo.

Hollander claims that Ricardo's ideas on income distribution, being independent and in some sense prior to pricing of commodities, are fallacious. For Ricardo, income

distribution was an aspect of pricing. His principle of profit rate equalization was based upon demand and supply analysis which was the key to Ricardo's analysis of allocation of scarce resources among competing uses. He had a "sophisticated demand theory" which has not been recognized by "common" and "standard" interpretations of Ricardo. Therefore, Marshall's judgement about Ricardo's having had a demand theory was correct and other interpreters -- who claimed that "Ricardo did not possess a theory of demand, or at best a rudimentary one only" -- actually "gravely misunderstood"¹²⁶ him. Ricardo's economics and method, according to Hollander, has much in common with that of the general equilibrium theorists in the marginalist tradition.¹²⁷

According to Hollander, Ricardo analyzed the workings of the competitive process by using the conventional demand and supply theory. Key assumptions for Hollander's interpretation are:

1) "Constancy of the returns to labour and capital in the face of changes in the pattern of demand for final goods" and constancy of return is guaranteed by Ricardo's alleged; and 2) "implicit assumption of uniform factor proportions throughout all sectors."¹²⁸ "Allocation mechanism," we are told, should be understood within the context of the principle of profit rate equalization which is the key condition for competitive equilibrium.

Before discussing Ricardo's "theory of demand" there is one substantive matter which falls within the present range of topics: the theory of rent. Hollander's position on Ricardo's theory of rent is very similar to Marshall's position. Ricardo, according to Hollander "has shown a thorough awareness that differential rent is but a special case of a more general phenomenon"¹²⁹ -- land scarcity.

Hollander maintains that Ricardo first defined rent provisionally as the payment to the landlord "for the use of original and destructible powers of soil." Rent was a productivity phenomenon. His differential rent, in terms of "intensive margins," reflects

productivity differentials. But Ricardo's ultimate purpose was to express rent in terms of productivity and scarcity (supply and demand):

It should be added that it is perfectly consistent with the Ricardian position that rent may be generated even in the absence of differentials. I have in mind not merely differentials reflecting differences in the 'qualities' of successive plots, for it is diminishing returns at the intensive margin which constitutes a more general case, but the increase in rent due to a constraint upon output expansion of any kind in the face of raising demand.¹³⁰

The differential rent, according to Hollander, is not to be understood as falling outside the general demand and supply framework even in the case of non-existent land differentials. If land differentials disappear and the agricultural supply curve of agricultural goods becomes vertical; this, according to Hollander, is "scarcity manifesting itself in an extreme form." We now turn to Ricardo's "demand theory."

1. "Demand Theory" in Ricardo:

Hollander's analysis of Ricardo's "sophisticated demand theory" runs in terms of short and long-run. He maintains that Ricardo's writings reflect a clear comprehension of the workings of competitive market clearing model of short-run equilibrium, price elasticity of demand being positive. Ricardo also applied his "demand and supply theory" to the long-run. His conception of long-run "normal cost" was in line with that of Marshall.

a) Short Run:

Hollander claims that Ricardo was aware of the concept of price elasticity "although there would perhaps be, [Ricardo] insisted, ranges of inelasticity." As evidence, Hollander points to Ricardo's statements regarding the tax on wine. After a tax levied on wine, "one man will continue to drink the same quantity of wine, though the price of every bottle should be raised by three shillings, who would yet relinquish the use of wine rather than pay four. Another will be content to pay four, yet refuse to pay five shillings."¹³¹

Hollander concludes that "Ricardo recognized that price elasticity -- defined in terms of the proportionate response of quantity demanded to price and consequential changes in total expenditure -- varies over the range of prices, exceeding unity at higher levels and declining to values less than unity at lower levels."¹³² Once Ricardo established the concept of price elasticity, he applied "these principles of demand responsiveness to price ... to the particular case of corn" where Hollander alleges that Ricardo believed in both "low [price] elasticity of demand for corn" and "low income elasticity of demand for corn"¹³³ and sometimes assumed them to be zero for simplicity.¹³⁴

Hollander states that "Ricardo failed to appreciate the conception of marginal utility," but "the implications of the absence of a conception of diminishing marginal utility should not be exaggerated," because, he "was thoroughly conscious of the fundamental role of scarcity in value formation."¹³⁵ Hollander claims that Ricardo was no doubt aware of the famous water and diamond paradox and claims that, as the following quotation from Ricardo shows, he applied the principle of scarcity:

It is undoubtedly true, that in the case of deficient supply, a smaller quantity will be shared among the same number of consumers, and a smaller portion will fall to each. To distribute this privation equally, and to prevent the labourer from consuming subsistence so freely as before, the price rises.¹³⁶

In the above quoted passage, the case of temporary supply deficiency causing market prices to rise is interpreted by Hollander to mean that Ricardo was in possession of the principle of scarcity.

b) Long-Run:

As far as Ricardo's application of the demand-and- supply framework to the long-run is concerned, Hollander claims that the key is the correct understanding of Ricardo's conception of "cost-price." He starts by opposing Schumpeter's contention that Ricardo may have accepted demand-and-supply explanation of the determination of market price but rejected it in the analysis of long-run "normal" price.¹³⁷ Hollander attempts to establish that normal prices (using Marshall's term) are also the outcome of the demand and

supply mechanism in Ricardo, and therefore his treatment is closer to neoclassical theory. In doing so he opposes the "standard" neoclassical interpretations of Walras, Jevons, Schumpeter, Wicksell,¹³⁸ Shove,¹³⁹ Stigler, Knight, Barkai and others, claiming that they all "gravely misunderstood" Ricardo.

Hollander first dismisses the contention that in speaking of 'the' cost of production Ricardo was limiting himself entirely to the case of constant cost industries, wherein demand does not effect the natural price in a partial equilibrium analysis. He considers this to be an "unjustifiably restrictive"¹⁴⁰ case for Ricardo. Next, Hollander attempts to show that some of Ricardo's "formal" statements require closer reading. Here, the major difficulty that Hollander confronted is Ricardo's repeated statements that price is ultimately determined by cost of production and not by demand and supply. As is well known, Ricardo devoted Chapter 30 to demand and supply. It opens with the following sentence:

It is the cost of production which must ultimately regulate the price of commodities, and not, as has been often said, the proportion between the supply and demand ... The opinion that the price of commodities depends solely on the proportion of supply to demand, or demand to supply, has become an axiom in political economy, and has been the source of much error in that science.¹⁴¹

At this point, Hollander utilizes an exegetical hypothesis in order to differentiate between what Ricardo said and what he meant. What Ricardo said, Hollander calls "formal statements." But Ricardo's "formal statements" do not reflect his "intentions." "A closer reading" is required in order to penetrate below the surface and discover Ricardo's real "intentions." Accordingly, Hollander maintains that the above quoted passage, together with other parts of Chapter XXX of the Principles, "is devoted entirely to a formal criticism of demand and supply theory in the analysis of long-run price, while actually utilizing the theory interpreted in Marshallian terms." When Ricardo wrote "proportion of supply to demand or demand to supply" he did not mean "supply compared to demand." He was objecting to "unhelpfulness of a conception running in terms of the ratio of demand and

supply"¹⁴² and in the said passage he was complaining about "those formulations that appeared to exclude a role for cost conditions in the mechanism."¹⁴³ What this means is that Ricardo was actually complaining about the classical economists' conception of demand and supply as ex post magnitudes. In the chapter, Ricardo was actually criticizing Lauderdale and Say and his criticism applied to Smith and Buchanan also. It appears, then, that in Hollander's view these classicals did not visualize demand as relationship between prices and quantities.

Hollander quotes Ricardo's letter to Malthus, (dated 30 January 1818):

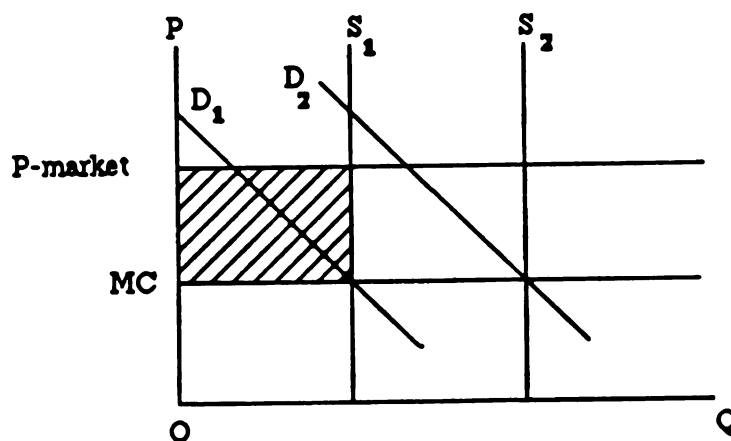
I confess it fills me with astonishment to find that you think ... that the measure of value is not what I have represented it to be; but that natural price, as well as market price is determined by the demand and supply ... In saying this do you mean to deny that facility of production will lower natural price and difficulty of production will raise it? ... It seems natural to seek for the cause of variation of permanent price in the expences of production. Diminish these and the commodity must finally fall, increase them and it must as certainly rise, What has this to do with demand?¹⁴⁴

Hollander writes that here Ricardo appears to formally reject demand-supply apparatus in the long-run case; but a "close reading" shows that his objection was to any procedure which seemed to deny that changed real cost conditions will alter price."¹⁴⁵

As far as the "supply side" is concerned, Hollander maintains¹⁴⁵ that "Ricardo's cost-prices make no sense except within a demand-supply framework allowing for alternative uses of resources"¹⁴⁷ and more explicitly "the notion of opportunity cost pervades Ricardo's work."¹⁴⁸ Hollander quotes from Ricardo's correspondence at length and finds the origins of the concept of opportunity cost in Ricardo. He claims that "on matters of principle, Ricardo's line is that of Lausanne"¹⁴⁹ and that the origins of derived demand and "thus imputation goes back to Ricardo."¹⁵⁰ Hollander claims in Ricardo "the principle that cost prices reflect alternative opportunities, provides the rationale for the fundamental theorem of distribution itself. ... A general wage increase ... sets in motion appropriate supply adjustments,"¹⁵¹ to which we now turn.

2. "Allocation Mechanisms" at work:

Hollander's interpretation of the competitive adjustments can be summarized¹⁵² as follows: as the demand for a particular manufactured good increases (as a result of change in tastes), as long as the market price is above the marginal cost (which is constant in manufacturing) new firms would be attracted because of the excess profit. "Firms" would respond and the industry supply curve for that particular good would increase and shift supply to the right. This would bring prices down and thereby eliminate the excess profit. Geometrically:



Supply shifts from S_1 to S_2 thereby eliminating the excess profit (shaded area).

In the case of supply shocks, the analysis is similar:

1) Sales tax. Hollander maintains that supply and demand elasticities determine the distribution of the tax burden. A sales tax would shift the supply to the left. In the case of zero demand and zero supply elasticities, the burden is borne solely by the consumers.

2) Cost reducing technological change. Hollander maintains that Ricardo was aware of the difference between long-run and short-run in such a case. In the short run, producers realize excess profit due to a downward shift in marginal cost. But in the long-run, new firms enter, shifting industry supply to the right and thereby create "excess

supply at the original price."¹⁵³ Prices fall, and eventually eliminate excess supply and excess profit.

Finally, Hollander maintains that following a technological improvement, market prices adjust to the cost of production in agriculture other than by changes in output.¹⁵⁴ It must be noted in passing that this last supposition seems to contradict his earlier contention that Ricardo believed diminishing returns were ruling in agriculture.

3. "Factor Pricing":

Hollander claims that the "allocation mechanisms" he describes can be extended to include factor pricing. Ricardo, according to this interpretation, made use of "the implicit assumption throughout much of the analysis... that factors are released in proportion; the 'law of markets' then assures their reabsorption with no pressure at all on the factor returns" so that disturbances would have no effect on the general profit rate.¹⁵⁵ Hollander mentions several "disturbances." In the case of taxation, displaced factors (due to declining quantity demanded caused by a shift in supply) are reabsorbed by expanded government expenditure financed from tax proceeds. Thus, there is no pressure on factor returns. In the case of a technical change in agriculture, capital will be withdrawn from land, but demand for agricultural goods remains constant, so there will be increased demand for manufactured goods. Again there is no pressure on factor returns. The "machinery" question introduced in 1821 is a completely new issue¹⁵⁶ and "reliance on the law of markets to assure reabsorption at constant factor prices is no longer possible,"¹⁵⁷ according to Hollander. Ricardo sometimes faced disturbances which involved attraction of resources rather than their release, but once again the law of markets assured constancy of factor returns.¹⁵⁸ Finally, Hollander maintains that Ricardo's assumption of "uniform factor proportions" makes it possible to accommodate demand disturbances such as change in tastes.¹⁵⁹

In Hollander's interpretation "uniform factor proportions ... allows the treatment of factor returns as parameters in the analysis of price" and he sees no reason to expect that Ricardo would have changed his position (aggregate demand and supply determining wages) even if he had assumed differential factor proportions.¹⁶⁰

It should be emphasized that Hollander's interpretation of Ricardo's "allocation theory" is based upon Ricardo's alleged assumption that factor proportions are uniform. Uniform factor proportions imply that when the wage rate is altered there will be no change in prices and thus profits must move inversely. In the case of differential factor proportions, a general change in wages will effect the cost of production differently, therefore the relationship between wages and profit rates may not be inverse. Ricardo, according to Hollander, "bypassed the problem by assuming uniform factor proportions" and he "later in his career hit upon the choice of commodity with 'mean' factor ratios but this was a formal solution at best."¹⁶¹

Notes

1. Hollander's book, The Economics of David Ricardo, University of Toronto Press, 1979 is a very long book: 759 pages. He has written more than a dozen articles on several aspects of the economics of Ricardo, the life and perspectives on his thought, his economic analysis and other related issues including his debates with other commentators.

2. He is accused of giving too much weight to Ricardo's parliamentary speeches and letters. See for example, G. Stigler, "Review of The Economics of David Ricardo," Journal of Economic Literature, Vol. XIX (March 1981) p.101, especially p.102; D.P. O'Brien, "Ricardian Economics and the Economics of David Ricardo," Oxford Economic Papers, Vol. 33, Nov. 1981 Number 3, pp. 352-387, especially p.384, M. Blaug, after considering all of the main statements of Hollander "false," wrote "All I can do here is to suggest the root of the problem ... He gives equal weight to propositions advanced in Ricardo's Principles, in Ricardo's pamphlets, in Ricardo's speeches ... and ... his private correspondence, and this makes it all too easy to refute almost everybody else's interpretation of Ricardo." "What Ricardo said and what Ricardo meant," published in The Legacy of Ricardo, edited by G.A. Caravale, Basil Blackwell, 1985, p.7-8.

3. D. P. O'Brien, "Ricardian Economics and the Economics of David Ricardo," Oxford Economic Papers, Vol 33, Nov. 1981, Number 3. p.352.

4. A. Roncaglia, "Hollander's Ricardo," Journal of Post Keynesian Economics, Vol. 4(3), Spring 1982, p.339.

5. J. L. Eatwell, "The Interpretation of Ricardo's Essay on Profits," Economica, Vol. 42 (166), May 1975, p.186.

6. G. Stigler, The Review of The Economics of David Ricardo, Journal of Economic Literature, Vol. XIX (March 1981) p.102, and p.101.

7. M. Blaug, "Marx's Bourgeois Mentor: Review of Hollander's Economics of David Ricardo," Times Literary Supplement, April 11, 1980, p.421.

8. D. P. O'Brien mentions 45 names in his rejoinder, "Ricardian Economics," Oxford Economic Papers, Vol. 34, March 1982, Number 1, p.247. I was able to discern more than 50 leading commentators. Some of them are Blaug, Cannan, Dobb, Keynes, F. Knight, Samuelson, Marx, Schumpeter, Sraffa, Walras, Stigler, Dmitriev ...

9. M. Blaug, "Marx's Bourgeois Mentor." p.421.

10. S. Hollander, The Economics of David Ricardo, p.640. Last italics added.

11. G. L. S. Shackle, Epistemics and Economics: A Critique of Economic Doctrines, Cambridge University Press, 1972. Preface (no page numbers).

12. Ibid., p.360.

13. Ibid.

14. Ibid., p.73.

15. It is interesting to note at this point that T. Veblen considers "economic science in the remoter past of its history has been mainly of a taxonomic character" and agrees with the perception that "later writers show something of a divergence from the taxonomic line." In his opinion "evolutionary method and the evolutionary ideals have been placed in antithesis to taxonomic methods and ideals of pre-evolutionary days" (p. 122-123, "Preconceptions of Economic Science Part I," Quarterly Journal of Economics, January, 1899, Part I.) Veblen adds that "Marshall's insistence on the continuity of development and of the economic structure of communities is a characteristic of the best work along the later line of classical political economy. All this gives an air of evolutionism to the work. Indeed, the work of the neo-classical economics might be compared, probably without offending any of its adepts, with that of the early generation of Darwinians, though such a comparison might somewhat shrewdly have to avoid any but superficial futures. Economists of the present day are commonly evolutionists." (p.265 "The Preconceptions of Economic Science, III" QJE, Vol. XIV, 1900).

16. G. L. S. Shackle, Epistemics and Economics, p.73.

17. Ibid., p.345.

18. Ibid., p.347.

19. Hollander, The Economics of David Ricardo, p. 14.

20. Ibid., p.646.

21. Ibid., p.659f.

22. S. Hollander, "On the Substantive Identity of the Ricardian and Neoclassical Conceptions of Economic Organization: the French Connection in British Classicism," The Legacy of Ricardo, Edited by, G. A. Caravale, Basil Blackwell, 1985, pp.13-44.

23. S. Hollander, The Economics of David Ricardo, p.372.

24. Ibid., p.309.

25. Ibid., p.11.

26. Ibid., p.310.

27. Ibid., p.645.

28. Ibid., pp. 300, 302, 304, 306, 284, 270, 271, etc.

29. Ibid., p.458.

30. Ibid., p.459.

31. Ibid., p.457.

32. Ibid., p.459.

33. Ibid., p.11.

34. Ibid., p.556.
35. S. Hollander, "Ricardo's Analysis of the Profit Rate, 1813-15," Economica, August 1973, p.275. For a similar statement see The Economics of David Ricardo, p.156.
36. S. Hollander, The Economics of David Ricardo, p.282. Italics in original.
37. Ibid., p.281, Italics in original.
38. Ibid., For "intentions" see for example p.257, 286, etc.,
39. Ibid., p.284.
40. Ibid., p.282.
41. Ibid., p.291.
42. Ibid., p.604. See for example also p.639: "I do not believe that Ricardian theory should be interpreted in terms of specific predictions regarding the actual course of events, for Ricardo was thoroughly aware that all depends upon the satisfaction of the ceteris paribus conditions...."
43. Ibid., p.12.
44. Ibid., p.689.
45. Ibid., p.7.
46. Ibid., p. 11-12, Hollander wrote: "Ricardo was ... preoccupied by the link between the money price of corn, the money wage, and the money price of manufactures, and sought to demonstrate rigorously that an increase in money-wage rate ... must entail a fall in the general profit rate." As far as Ricardo's procedure (given above on p.16-18) is concerned, Hollander wrote: "Ricardo ... analyzed the inverse profit-wage relationship of a change (rise) in wages by use of the standard measuring procedure and then to apply the new rate in the calculation of the price structure. But this does not constitute an account of process analysis entailing causal linkages; it is merely a device designed to yield appropriate predictions regarding the new equilibrium values of key variables following a disturbance to the wage rate."
47. One of the most concise and condensed interpretations by Hollander of "Ricardo's growth theory" can be found in his article written jointly with J. Hicks: "Mr. Ricardo and the Moderns," Quarterly Journal of Economics, Vol. 91 (3), August 1977, pp. 351-69. In connection with Ricardo's theory of wages it has been claimed that "nowhere does the viciousness of the great economist's abstract method appear more clearly ..." (Lewis Haney, History of Economic Thought, 1949, p.301) Now, Hollander's interpretation of Ricardo's wage theory in terms of the model given in his joint article makes justice to this judgement! Arguments are condensed, assumptions are not clearly stated, but Hollander considers this exposition of Ricardo's growth theory a good representation of his interpretation: "I attribute to Ricardo the growth model described geometrically in a joint article with Sir John Hicks" (S. Hollander, "The Economics of David Ricardo: A Response," Oxford Economic Papers, Vol. 34, March 1982, Number 1, p.227. Some crucial aspects of Hollander's interpretation of "Ricardo's Growth

Theory" are also stated in his book pp. 395-404. Another reason why I have chosen this particular version of the interpretation by Hollander of Ricardo is that the model given in the joint article has become a standard representation of the "New View" of the Ricardian Theory of Distribution and Economic Growth. See for example Carlo Casarosa, "The 'New View' of the Ricardian Theory of Distribution and Economic Growth," The Legacy of Ricardo, edited by G. A. Caravale, Basil Blackwell, 1985, pp. 45-58.

48. J. Hicks and S. Hollander, "Mr. Ricardo and the Moderns" QJE, Vol. 91 (3), August 1977, pp.352-355. A more "conventional" exposition in terms of four-quadrant diagrams can be found in D. Levy, "Ricardo and the Iron Law: A Correction of the Record," History of Political Economy Vol. 8(2), Summer 1976, pp. 235-51. Hollander says: "My interpretation ... has much in common with that of David Levy" (The Economics of David Ricardo p.309f). In many respects Levy's exposition is much clearer but leaves him vulnerable to possible charges of reproducing the neoclassical growth model and applying it to Ricardo. Hollander-Hicks model by only considering the equilibrium paths appears in form, different than conventional text book representations of neoclassical growth models.

49. In other words there exist a maximum wage rate corresponding to minimum profit (by the "Fundamental Theorem on Distribution". This maximum wage rate

$$= \frac{\text{Marginal Product of Labor}}{1 + r_s},$$
 thus HEF is downward sloping.

50. J. Hicks and S. Hollander, "Mr. Ricardo and the Moderns," p.358-359.

51. Ibid., p.360.

52. As we know from the previous sections, these were the positions of Knight, Stigler, Schumpeter, and Sraffa.

53. Ibid., p.360.

54. Ricardo, Works, Vol. IV, p.12.

55. Ibid., p.22., Italics added.

56. Ricardo, Works, Vol. I., p.93.

57. S. Hollander, The Economics of David Ricardo, p.395.

58. Ibid., p.397.

59. Ibid., p.398.

60. Ibid., p.398.

61. For this point see J. Eatwell, "The Interpretation of Ricardo's Essay on Profits," Economica, May 1975, p.182. Eatwell claims that if the value of gold is determined by its cost of production incompatibility between corn model interpretation (Sraffa) and Hollander's interpretation disappears. Since given conditions of production, and unchanged value of money the greater (corn) cost of producing the (corn) wage can be expressed as rise in money wage leading to fall in profit rate.

62. In this numerical example, Ricardo demonstrated that the rise in the money value of rent is accompanied by an increased share of the product by the landlord giving them a double benefit: landlords money rent will be greater and their real (corn) rent will also be greater. Example shows that the initial wage of 24 is divided equally between corn (12) and "other things" (12), when corn price goes up 4/48 (value of 5.83 quarters of corn labor would receive 24/4 but their commodity wage remain constant.

63. S. Hollander, The Economics of David Ricardo. pp.398-399.

64. Ibid., p.402-403 and 403f.

65. Ibid., p.7.

66. Ibid.

67. S. Hollander, "Ricardo's Analysis of the Profit Rate, 1813-15," Economica, August 1973., p.260.

68. S. Hollander, "Ricardo and the Corn Profit Model: Reply to Eatwell," Economica, May 1975, pp. 188-189.

69. Ibid., p.189.

70. Hollander, The Economics of David Ricardo., p.7.

71. Ibid., p.104.

72. Ibid., p.118.

73. Hollander, Ibid., p.107: "without an expansion of money supply the higher level of prices cannot be maintained." Note that this notion is opposed to Smith in that increase in prices will not be passed on to consumers without an increase in money supply.

74. Coutts Trotter, The Principles of Currency and Exchanges Applied to the Report from the Select Committee of the House of Commons Appointed to Inquire into the High Price of Gold Bullion, 1st. Edition (London 1810).

75. Hollander, The Economics of David Ricardo, p.111-112.

76. Sraffa, Works I. p. xxxi, Italics added.

77. Hollander, The Economics of David Ricardo, p.138.

78. Ibid., First italics are added.

79. Ibid.

80. Sraffa, (Works I, p. xxxi-xxxii) points to following sentences: "In no case of production, is the produce exactly of the same nature as the capital advanced. Consequently we can never properly refer to a material rate of produce." (5 August 1814 - Malthus to Ricardo) and "the rate of profits and of interest must depend on the proportion of production to the consumption necessary to such production" (26 June 1814). Sraffa

claimed that in the August letter Malthus was opposed to Ricardo's position and one evidence of such a position is the one given in the June letter.

81. Hollander, "Ricardo's Analysis of the Profit Rate, 1813-15," Economica, August 1973, pp. 266-267. For further analysis of these matters see J. Eatwell, "The Interpretation of Ricardo's Essay on Profits," Economica May 1975, pp. 182-187 and P. Garegnani, "On Hollander's Interpretation of Ricardo's Early Theory of Profits," Cambridge Journal of Economics, Vol. 6, No.1.

82. Hollander, The Economics of David Ricardo, p.132.

83. Ibid., p.138.

84. Ibid., p.137

85. Ibid., p.140-41.

86. Ibid., p.139.

87. Ricardo, Works VI, p.340.

88. Ibid., p.348. Italics added.

89. Hollander, "Ricardo and the Corn Profit Model: Reply to Eatwell" Economica, May 1975. p.201.

90. Ricardo, Works VI., p.190.

91. Ibid., pp. 187-188.

92. Ibid., p.193.

93. Ibid., p.203.

94. Ibid., p.193.

95. See P. Garegnani, "On Hollander's Interpretation of Ricardo's Early Theory of Profits," Cambridge Journal of Economics, Vol 6., No. 1, J. Eatwell, "The Interpretation of Ricardo's Essay on Profit," Economica May 1975 and K. Bharadwaj, "On a Controversy over Ricardo's Theory of Distribution," Cambridge Journal of Economics, 1983, 7, pp.11-36.

96. Hollander, The Economics of David Ricardo, p.145.

97. Ibid., p.177, Italics added.

98. Ibid., p.194.

99. Ibid., p.191.

100. Ibid., p.193.

101. Ibid.

102. Ibid., p.200.
103. Ibid., p.202, last italics added.
104. Ibid.
105. Ricardo, Works Vol. VII, p.84.
106. Ibid., p.88.
107. Ibid., p.82-83.
108. Torrens in his "Strictures on Mr. Ricardo's Doctrine Respecting Exchangeable Value," Edinburg Magazine (October 1818) pp. 335-8 maintained that Smith was correct in his view that in the advanced stages of society the quantity of labor employed in production was not the circumstance which determines the exchangeable value of commodities.
109. Hollander, The Economics of David Ricardo, p.209, Italics added.
110. Ibid., p.217, Italics added.
111. Ibid., p.263, First italics added.
112. Ibid., p.263f. Italics added.
113. S. Hollander, "On the Substantive Identity of the Ricardian and Neoclassical Conceptions of Economic Organization: the French Connection in British Classicism," Legacy of Ricardo, Edited by G. A. Caravale, p.20, 21 and 22.
114. For numerous examples see for example, S. Hollander, "The Economics of David Ricardo: A Response to Professor O'Brien," Oxford Economic Papers, Vol. 34., March 1982, Number 1, pp. 224-245; p.238.
115. For the original usage of the label "empirical labor theory," see the interpretation of G. Stigler. For a critique see J. P. Henderson, "The History of Thought in the Development of the Chicago Paradigm," Journal of Economic Issues, Vol X, No.1, March 1976, especially pp. 133-140.
116. For the original usage of the label "approximation" See J. A. Schumpeter, History of Economic Analysis, Oxford University Press, 1959. p.594.
117. S. Hollander, The Economics of David Ricardo, p.227.
118. Ibid., p.233.
119. Ibid., p.237, Second italics added.
120. Ibid., p.241.
121. Ibid., p.242.
122. M. Blaug, "Marx's bourgeois Mentor," Times Literary Supplement, April 11, 1980. p.421.

123. Hollander, The Economics of David Ricardo, p.238.
124. Ibid., p.236.
125. Ibid., p.258.
126. Hollander, The Economics of David Ricardo, p.270.
127. Ibid., p.689.
128. Ibid., p.270.
129. Ibid., p.605.
130. Ibid., p.666.
131. Ibid., p.274.
132. Ibid.
133. Ibid., pp. 275-276.
134. For a discussion of Ricardo's assumption of zero elasticity of demand for corn see Stigler, "Textual Exegesis as a Scientific Problem," Economica, Vol. XXXII (1965), p.448 and H. Barkai, "Ricardo's Static Equilibrium," Economica, Vol. XXXII (1965), especially pp. 18, 21 and "A Note on Ricardo's Notions of Demand," Economica, Vol 34, February 1967, pp. 75-79, especially p.75: arguing that "demand relations as an integral element of Ricardo's value theory ... is alien to Ricardo" but if one wants to "attribute a demand hypothesis to Ricardo ... a conventional demand curve ... rather than the zero elastic demand curve for food ... would be preferable."
135. Hollander, The Economics of David Ricardo, p. 277-278.
136. Ibid., p.279, Italics added.
137. Ibid., p.280.
138. K. Wicksell, Lectures on Political Economy, E. Classen, London, Routledge, Vol. I p.24-26.
139. G. F. Shove, "The Place of Marshall's Principles in the Development of Economic Theory," Economic Journal, December 1942, p.297.
140. Hollander, The Economics of David Ricardo, p.281.
141. Ricardo, Works, I, p.382.
142. S. Hollander, The Economics of David Ricardo, p.282-283.
143. S. Hollander, "Ricardo's Conception of Economic Organization," p.23.
144. S. Hollander, The Economics of David Ricardo, p.281-282.

145. Ibid., p.282.

146. S. Hollander, "On the Substantive Identity of the Ricardian and Neoclassical Conception of Economic Organization: The French Connection in British Classicism," Legacy of Ricardo, Edited by G. A. Caravale, Basil Blackwell, 1985, pp.13-44.

147. Ibid., p.23.

148. Ibid., p.20.

149. Ibid., p.24.

150. Ibid., p.28.

151. Ibid., p.23.

152. Hollander, The Economics of David Ricardo, pp.285-293.

153. Ibid., p.290.

154. Ibid., p.292.

155. Ibid., pp.293-301.

156. On this issue see John Bryan Davis, "The Transformation of Ricardo's Principles Through the Addition of the 'On Machinery' Chapter," (Ph.D Thesis submitted to Michigan State University, 1985.) Davis argued that the addition of the "On Machinery" chapter to the third edition of the Principles overturned most of Ricardo's distribution analysis propounded in the first two editions of the Principles. Davis claimed that in the original distribution scheme profits appear as a residual. In this, economic relationship between the three classes plays a crucial role. By pointing out an inverse relationship between rents and profits, Ricardo suggested that the class antagonism was between the landlords and the capitalists. Davis claims that by raising the possibility of technological unemployment, the relationship between the three classes is altered; treating wages dynamically Ricardo shifted the attentions from landlords versus capitalists to capitalists versus laborers. Based on this new class conception, Davis points out that, Ricardo was groping towards another explanation of profits.

157. S. Hollander, The Economics of David Ricardo, p.299.

158. Ibid., p.295.

159. Ibid., p.299.

160. Ibid., p.300.

161. Ibid., p.303.

THE PROBLEM OF THE MULTIPLE INTERPRETATION OF RICARDO

By

Ercilment Galip Aksoy

Volume II

A DISSERTATION

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PART TWO: A CRITICAL ANALYSIS OF THE INTERPRETATIONS

CHAPTER NINE: A CRITICAL OVERVIEW

Malthus' views on Ricardo are especially important because of his credentials as an influential economist and a close friend. He was the only economist who could possibly compete with Ricardo for the dominance of political economy at the time. Malthus' opinions were always taken very seriously by Ricardo. He was able to follow Ricardo's intricate arguments and present him with the most challenging questions. Ricardo and Malthus interacted continuously during Ricardo's entire career as a political economist. Among all of the economists included in this study, Malthus is the only one who knew Ricardo personally; spoke with him, dined with him; and discussed not only economic problems but also current political events and issues. Ricardo responded to Malthus in writing and in conversation. Therefore, Malthus' views about Ricardo's economics were shaped not only by his published writings, but also by his personal relationship with Ricardo. On the other hand, Malthus did not have access to the letters Ricardo had written to other persons, now available to everyone. The significance of our emphasis on Malthus' personal relationship with Ricardo is this: as will be discussed below in detail, in the case of multiple and conflicting interpretations, it is sometimes claimed that one of the main criteria in judging the "truth value" of interpretations is the degree with which an interpreter approximates the author's intentions. If the author's intention is a tenable criterion, Malthus certainly qualifies as knowing Ricardo's intentions more than anyone else included in this study.

The most significant factor in the development of Ricardo's theories was his interaction with Malthus. They regularly communicated with each other in letters. Despite the sympathy and respect which the two had for one another, they had contrasting lifestyles and differing economic, political, social and religious views. Even though their religious differences might have affected their intellectual make-up, it never surfaced: there was never a discussion regarding religious matters. When Ricardo was at the peak of his

influence as a political economist, Malthus was the only economist who stood apart from Ricardo's theories. He persistently communicated his objections and constantly brought forth new causes which pushed Ricardo to his limits. The most significant changes Ricardo made in his theories were prompted by Malthus' objections. Ricardo reacted to what Malthus believed him to be saying.

Malthus' interpretation of Ricardo reflects their differences with respect to the nature, scope and methodology of political economy. Malthus believed that Ricardo had a "rigid" conception of economics and that his system was very restrictive but showed a high degree of mathematical precision. Ricardo had an abstract, deductive mode of reasoning which he carried out in terms of assumptions about the dominance of single causes. As discussed below, Malthus was highly critical of Ricardo's method of investigation using "strong cases." He believed that many of the shortcomings of Ricardo's theories resulted from this method of dealing with only the strongest cases. Malthus, contrary to some later economists (e.g., Samuel Hollander), did not regard Ricardo's "strong cases" as parables or temporary devices, but rather his method of investigation (*modus operandi*). One of the factors which led to a multiplicity of interpretations of Ricardo is his use of strong cases.

Another significant aspect of Malthus' interpretation is that he pointed out the role played by the practical political problems of the time in the formation of Ricardo's theories. Malthus showed that Ricardo's advocacy of political prescriptions was in accordance with the ideology of the capitalist class with which he identified. From Malthus' interpretation, it appears that both Ricardo and Malthus wrote with a view to influencing the leading issues of their day. In other words, despite the seemingly abstract character of his theories, Ricardo was not theorizing in a vacuum. Political and ideological considerations influenced the two economists' theories and in their debates these considerations were sometimes obvious (e.g., their discussions on rent) and sometimes remained in the background (e.g., value theory). This suggests that a correct knowledge of historical events, political problems, and class structure of the time, etc., are necessary considerations in the

interpretation of Ricardo's theories. Malthus' implicit and explicit emphasis on the political content of Ricardo's theories stands in contrast to Marshall's interpretation. Marshall avoided such issues altogether; and S. Hollander did not consider policy and predictability to be aspects of Ricardo's economics.

The most significant aspect of Marx's interpretation is his overall assessment of the place of Ricardo's theories in the history of economic thought. Marx believed that Ricardo had shifted the focus of economic analysis to where it should belong: the sphere of production. He claimed that previous economists continuously described and studied pure exchange theories by assuming that certain pertinent economic categories (such as income distribution, social and institutional variables, etc.), were given. Ricardo, however, began his analysis with the determination of value and, based on this foundation, investigated the economic categories of capitalism. This, aside from the other merits of his system, is in itself a significant contribution, because it allowed later economists to "penetrate to the inner physiology of the bourgeois society."¹ In Marx's view, the origins of value can only be found in the sphere of production. Hence, Marx calls Ricardo an "economist of production par excellence."

Marx, it appears, was the first economist to point out explicitly the difference between Smith and Ricardo on the question of value. He saw clearly the circularity involved in Smith's explanation of value. Value of commodities cannot be explained in terms of the three components of price because the components -- wages, profits and rents -- are themselves either prices or derived from prices. Hence, a theory explaining prices in terms of prices is circular ("merry-go-round").² Another aspect of Marx's interpretation regarding Ricardo's differences from Smith is an appreciation of the importance of Ricardo's discovery of the "curious effect." Marx did not use the term "curious effect" to describe that particular discovery but he considered it "a nice point,"³ demonstrating the differences between Ricardo and Smith rather dramatically. Ricardo had succeeded in showing that after an increase in wages, prices of the goods produced with higher than

average capitalization decreased. This is in direct contrast to Smith's component-parts-of price theory which predicts that prices would rise as the price of the component parts rises. It should be noted that Sraffa's interpretation of the "curious effect", as demonstrating Ricardo's dissent from Smith, is quite similar to Marx's argument.⁴ The "curious effect" was designed to demonstrate not only a dissent from Smith but also to provide Ricardo with a preliminary basis for the comprehensive study of the impact of changes of wages on relative values when the degree of capitalization differed between the sectors. Ricardo wanted to use an invariable measure of value as a means for making the deviations of values from the labor requirements manageable. This would make it possible to incorporate modifications --which he introduced later in the chapter on value in the Principles -- into his theory of profits. According to Marx, this is where Ricardo went wrong: he forgot that the profits are determined in the sphere of exchange and equated surplus with profits. Thus, Ricardo fell into Smith's "trap of natural price." One of Marx's interpretations is that Ricardo wavered between value as "cost of production" and value as "quantity of labor embodied." He sometimes assumed that the two are the same.

Marx's interpretation of Ricardo's theory of value and the role of the invariable measure of value differs from Stigler's and Marshall's interpretations. They claimed that Ricardo had a cost of production theory. Hollander by-passed the entire problem of invariable measure of value by attributing to Ricardo a uniform factor proportions assumption. Mitchell did not deal with the issue. Schumpeter did not want to relinquish the idea that Ricardo had a labor-embodied theory by raising doubts that otherwise "it would be difficult to see what it was he fought for with so much insistence and what the ensuing controversies were about."⁵

The significance of all these issues in the interpretations of Ricardo is that Marx was fascinated with the same problem: to find the impact of a rise in wages upon relative prices. This problem is closely connected to the famous transformation problem. Ricardo's problem of the invariable measure of value and Marx's problem of the

transformation of values into prices are the same problem looked at from different angles. Ricardo's problem is solved by Sraffa in 1960: his standard commodity possesses all the characteristics of the invariable measure of value for which Ricardo had searched. Marx's problem of transforming values into prices is solved by a number of economists as well. All of these conceptual similarities and subsequent developments had an impact on later economists' interpretations of Ricardo. Stated differently, the facts that Ricardo had a labor theory of value and had investigated the distribution of income between classes, and that Marx had an exploitation theory based on the expropriation of surplus value, inevitably colored the views of later economists in approaching Ricardo. Finally, Sraffa's contributions resulted in the suggestion that in the history of economic thought Ricardo should be placed on a different route than that which ran from Smith to Jevons, Walras and Marshall and then to modern neo-classical economists. The fact that Marx had produced, according to some, the only logical theory of profit based on the concepts used by Ricardo, and the fact that Sraffa has constructed a "logically impeccable"⁶ model using the concepts used by Ricardo have created certain preconceptions in the minds of later interpreters of Ricardo. This suggests that Ricardo's interpreters cannot ignore the subsequent theoretical developments that take place. We shall return to this issue in our study of the impact of conceptualization on interpretations of Ricardo.

In its style and substance, Marshall's interpretation of Ricardo is dramatically different from all other interpretations (except S. Hollander's) that are investigated in this study. As discussed above, some of the highlights of the substance of his interpretation are as follows: Ricardo "appeared" to have a cost of production theory of value but in fact he regarded it as a part of a larger doctrine of demand and supply. He considered capital in the form of "waiting" as a separate, independent, measurable cause of value. He was aware of and made use of the distinction between the concepts of total and marginal utility. He was also aware of variable returns but took constant returns as an average. He had a long-run theory of real cost based upon the concept of "normal" price. He regarded rent as a special

case of a larger genus: diminishing marginal productivity. He had a sophisticated allocation analysis from which income distribution emerged as part of an integrated theory of pricing based upon the principles of demand and supply. In short, Marshall's interpretation finds strong similarities between Ricardo's economics and the marginal utility tradition.

Marshall attributed practically all misunderstanding about the economics of Ricardo to his stylistic weaknesses, his inability to express himself clearly, and his habit of not repeating his assumptions and not giving enough hints. He, therefore, proposed an exegetical rule which he summarized with the word "generosity." His technique of interpretation will be examined below in detail, but at this point it is sufficient to state that Marshall used his rule very generously in showing the similarities between Ricardo's concepts and theories and that of marginal utility tradition without supplying textual evidence for his assertions.

Another aspect of Marshall's interpretation which will also be investigated below is his presentation of many of his novel inventions as extensions of the theories of the British classical school. Marshall took strong issue with Jevons' famous retort (which actually suggested the "dual development hypothesis"), that "able but wrong-headed man David Ricardo shunted the car of economic science on to a wrong line." He wrote: "my youthful loyalty to Ricardo boiled over when I read Jevons' theory."⁷ Marshall considered himself an intellectual heir of the earlier tradition of British economic thought. Jevons' biting phrase was in opposition to Marshall's overall thesis. Continuity, not upheaval was his motto: Natura non facit saltum. Marshall underplayed the originality of his own theories. Several theories which Marshall had claimed were anticipated by Ricardo are now recognized to be Marshall's original contributions. These include: subordination of utility to demand, clear differentiation of the behavior of variables in the short-run and the long-run in the determination of prices, consumer surplus, producer's surplus, quasi-rent, conception of long-run real cost based upon measurable motives of effort and sacrifice,

clear differentiation of increasing, diminishing and constant returns in the theory of firm, etc.

As in the case of Marx's and Sraffa's theories, Marshall's contributions pose very difficult questions for the theory of interpretation. Should conceptualization be considered an aspect of interpretation? (Here, conceptualization can be defined as the process of enlarging, extending, and/or modifying concepts and making them applicable to certain problems or situations.) Or, should the interpretations be confined to an understanding and explanation of what is already present in the writings of the original author? Hermeneutically stated, are the appropriation and application "moments" of interpretation or are they external elements, essentially alien to the nature of interpretation? Is there a difference between conceptualization and the projection of one's views on to the original author? How does one know? We shall explore pertinent aspects of these issues below.

Moving on to W.C. Mitchell's interpretation of Ricardo, the distinctness of his interpretation is not due primarily to his opinions about Ricardo's theories. Mitchell did not write anything about Ricardo's economics that could be considered drastically different, sensational or new. It is his approach to the interpretation of economic doctrines and theorists and the type of interpretative questions he asks which makes him distinctive. His approach makes theorists the product of their specific historical circumstances. Mitchell claims that the theories should be interpreted within the context of institutional, environmental, political, ideological, and other circumstantial influences. He believes that an interpreter should not be concerned with what is "right" or "wrong" in a theorist, and should not search for ultimate, eternal truths or the mistakes in the theories of economic thinking. He tries to establish what type of circumstances give rise to which type of conditioned causal relationship between the circumstances and the theories. In approaching economic theories historically, Mitchell gives great importance to the prejudices, preconceptions, and idiosyncrasies of a theorist. Thus, he seeks a historical understanding of man as he is shaped by the society he lived in and as he in return shaped it. His analyses

require an interdisciplinary approach, one which would make use of psychology, sociology, anthropology, economics, political science, and law.

The details of his approach, with its application to Ricardo's economics will be studied below, but at this point one can say that among the interpreters investigated in this study, Mitchell comes closest to the analysis of historical time as it pertains to economic problems. In recent years, there has been growing criticism of economic analyses which ignored historical time and were carried out in models through logical time. It has been claimed that an economy can not move from the equilibrium point A to point B in a timeless fashion where there is no distinction between the future and the past.⁸ Whether or not a truly historical description and analysis of an economy (moving through time, benefiting or suffering the consequences of its past) has ever been achieved or can ever be achieved are questions beyond the scope of this study. The point is that regardless of its success or failure, Mitchell's style of interpretation raises and confronts such issues.

Secondly, Mitchell's type of interpretation leads one to difficult philosophical and ontological questions about the nature of understanding. Can there be a historical understanding of meaning? How does one close the gap between the past and the present - - should one even attempt to close the gap? Is not the past ontologically alien to present? Is it possible to talk about the "fusion of horizons"⁹ for the interpreter who is living in the present and the interpretable subject who/which lived in the past. If there can indeed be a fusion of two horizons, how is linkage established? As one connects and translates the past meaning into today's, is the linkage linear, circular, or arched?

The interpretations by Schumpeter, Knight and Stigler share many common themes. They agree on the general tenor of Ricardo's works and his place in the history of economics. They also agree on most of the details of his economic theories. A few points of difference arise in their personal opinions, but these differences are not significant enough to make their overall assessments of Ricardo divergent.

The most distinguishable characteristic of their interpretation is their perception of fundamental and irreconcilable differences between the economics of Ricardo and the marginal utility tradition of Jevons, Menger and Walras. Another distinguishing mark of their interpretations is their openly stated opinion that the Ricardian theories fall "outside the endeavors of scientific economists." Despite the differences in tone of their criticisms and the differences in the terminology used to express their final judgments, they generally regard Ricardo's theories to be "incorrect" and theories put forth by the marginal utility theorists to be "correct." Schumpeter considers Ricardo's theories to be a "detour" and a "vice," Knight calls Ricardo's theories "aberrations," "follies" and "fallacies," and Stigler uses the term "empirical" (in a belittling sense) to describe Ricardo's theories of value and distribution. It is this open rejection of Ricardian theories and a generally negative attitude which characterizes this interpretative style and distinguishes them from others investigated in this study.

In order to avoid a polemical tone¹⁰ and to concentrate instead on issues concerning the alleged differences between Ricardian and marginalist traditions, it might be tempting to establish some exegetical standards in order to isolate and insulate the substance of their interpretations from their criticisms, judgments, attitudes, opinions, etc. It is uncertain, however, whether one can set exegetical standards which are to the satisfaction of everyone. The divisions between these concepts vary according to one's frame of mind and intellectual makeup. Attitudes are often shaped by a specific mode of reasoning and supported by certain criteria of judgment. Ignorance of such attitudes can result in missed opportunities to discover that specific mode of reasoning and criteria of judgment; it would result in missing a certain style of interpretation. In the interpretations of Schumpeter, Knight, and Stigler, opinions, judgments, criticisms, explanations, etc. are intermixed. There is a judgmental interpretation. One of the purposes behind this study is to investigate alternative types of interpretation. A sanitization of their writings would obscure that particular style. There is another good reason one should not ignore attitudes

and instead try to see (where possible) how judgments are formed. It is the final assessment of the value or lack of value in an economic work which ultimately determines what will be taught in the classroom and what will be discarded as "useless," "irrelevant" or simply "incorrect." It is the ultimate judgment of influential economists which largely determine the "research programs" of later generations. Recognizing this, one should also be aware of the dangers inherent in paying too much attention to attitudes. Too much attention to such judgments may result in a loss of substance, and the finer points of an argument. Thus, a delicate balance between judgment and interpretation need to be established in the study of all interpretations. This need presents itself especially strongly in the study of interpretations by Schumpeter, Knight and Stigler, since their professed primary concern is with the assessment of "truth value" or "correctness" of Ricardo's theories.

As will be discussed below in detail, Schumpeter, Knight and Stigler are not directly concerned with making Ricardo's meaning clear. Theirs is not an interpretation which places an emphasis on the explanation and elucidation of Ricardo's principles; rather, they are concerned with criticism and evaluation of the "value" of Ricardo's theories. Thus, we do not see any practical exegetical rule (such as Marshall's) which would facilitate the reading of Ricardo, or reconcile the conflicting passages in the total body of writings. Stigler proposed two exegetical guidelines in 1965, but it is unclear whether he applied the same rules when he produced his interpretations of Ricardian theories. Oftentimes, it is taken for granted that their reading is correct and subsequently proceed with evaluations. The confidence Schumpeter feels about the objectivity of his evaluations stems from his belief that the standard he uses for judging, or his frame of reference, is free from ideological, normative and political intrusions. His standard seems to be condensed into the term "economic analysis." Knight, however, does not attempt to justify his consideration of Ricardian theories as "fallacies." Stigler gives a brief indication

about his standard, which presents itself in the distinction between "analytical" theories and "empirical" theories.

Deferring the discussion of their interpretative styles and methods, (including Stigler's later proposed exegetical guidelines), we shall presently elaborate upon the substance of their interpretation. The utilization of the interpretations of Schumpeter, Knight and Stigler demonstrates that fundamental differences exist between the basic tenets of Ricardian economics, as they saw it, and the basic principles of the marginal utility tradition of Jevons, Menger, and Walras. Schumpeter, Knight and Stigler indicate that the fundamental economic problem for Ricardo is the determination of laws which regulate the distribution of total product among the classes. Knight indicates that the second and the third "aberrations" of Ricardo were his conception of production in terms of wealth instead of the "correct" view, the productions of services. He claims, in effect, that Ricardo incorrectly concentrated on "progress and growth" instead of searching for conditions under which the production of services served the current satisfaction of individuals. In other words, Ricardo did not consider the central problem of economics to be optimal allocation of scarce resources among competing uses. Optimality is defined as the maximization of consumers' satisfaction. Ricardo instead concentrated on the production of wealth and the ensuing problems of accumulation of capital (i.e., economic growth). He investigated the effect of changes in the quantity of labor force upon the rate of growth of output. In Schumpeter's language, Ricardo assumed that the rate of growth of output is a function of the distributive shares of "factors of production." According to Schumpeter, it is a function of the rate of profit since with his "patchwork" approach, other distributive shares are determined outside the system and profit is left as residual. All three economists agree that Ricardo did not concern himself with the satisfaction of consumer tastes and desires. This is basically due to his ignorance of the principle of utility. He assumed that utility is nothing more than a prerequisite quality in order for a commodity to be valuable. In his interpreters' opinion, this reflects an ignorance about the significance of the concept

of scarcity. Schumpeter declared that Ricardo's blindness concerning the underlying principles of utility and scarcity turned him away from the "open road" and led him to embark upon his "detour."

Schumpeter, Knight and Stigler made it abundantly clear that Ricardo lacked the conceptions of incremental variations and substitutability. This is associated with an ignorance of the general technical apparatus of mathematical reasoning, particularly systems of simultaneous equations. Put differently, according to the "fifth aberration," Ricardo did not understand the notion of increments and was therefore ignorant of the principles of analysis in mathematical terms. (It was not the ignorance of the concept of utility, since we know that it is not the concept of utility that requires the use of mathematical techniques of optimization, but rather the principle of increments.) Thus, a significant difference between Ricardian and marginalist economics emerges in that Ricardo did not use the maximization principle. Knight and Schumpeter agree that Ricardo had "no clear or definite conception of the meaning of economy as a process of maximizing a value return" ("the sixth aberration"). The maximization principle, however, is used extensively in the marginalist analyses; it is generalized and applied not only to the maximization of utility but any maximand. In other words, the idea of maximization can be applied to any objective function, regardless of its units -- returns in physical units, utility, profit, etc. (subject to a set of constraints quantifiable in a functional form). Any value which maximizes the objective function is preferable to the next alternative. The connection between the maximization principle and the allocation of scarce resources is such that marginal rates of substitution between the competing uses are equal to each other. The uniqueness of the solution at the maximum is guaranteed by the assumption of what Knight calls the "incremental law." This applies to a general case which translates into the assumption of the diminishing slope of the objective function (i.e., the second derivative is negative).¹¹ Now, the mathematical elegance of this procedure results from its symmetry: in the case of production it is the principle of diminishing returns, (the related marginal conception of

substitution is called the marginal rate of transformation) and in the case of consumption it is the principle of diminishing utility (the marginal conception is the marginal rate of substitution). Schumpeter, Knight and Stigler (who wrote, as quoted above, "the classics were not in possession of the principle of substitution") are emphatic regarding Ricardo's lack of understanding of the principles of substitution in both production and consumption: Ricardo assumed a fixed-coefficient production function and ignored demand. This ignorance points to another vital difference between Ricardian analysis and the marginalist tradition. Under the familiar assumptions of perfect competition, the essence of marginalist analysis lies in its demonstration of the equimarginal principle. Perfect competition produces equimarginal allocation of scarce resources and expenditures which in turn become incomes according to the marginal productivities of "factors of production."

Knight sees Ricardo's theory of value as the starting point for all subsequent "aberrations." For Knight, it was a mistake to begin with a theory based on labor quantity instead of utility. But for the issue at hand, it is not whether Ricardo had a 100 per cent labor theory of value or an "approximation," or 93 per cent (or still 87 per cent, 72 per cent or 32 per cent)¹² that sets the two systems apart. It is the idea that wages are determined outside the system and that profits are reduced to a surplus. Another point of departure is that according to the "correct" view, factors of production -- land, labor, and capital -- are awarded with rent, wages and profits not because they contribute to the production but because they were scarce relative to consumer's wants (which are infinite).

Knight makes it clear that the discovery of a theory of imputation made it possible to view the distribution of income as an aspect of pricing. Knight explains that the imputation theory, combined with the principle of substitution, "explains all economic valuation and logically covers all there is to say about distribution."¹³ The trio claim that Ricardo was not in possession of either law. Schumpeter considers this lack of possession to be one of the reasons Ricardian analysis represented a detour. In Ricardo, the distribution of income and the pricing of commodities are separate issues. It can be added

that Schumpeter dissents from Knight in his view that Walras' treatment of the simultaneous determination of prices is more appropriate than Menger's. This is due possibly to the fact that Walras was well equipped with the technical apparatus of the systems of differential equations.

Interpretations by Schumpeter, Knight and Stigler all concur and disagree with some of the other interpretations included in this study. Their interpretative style is diametrically opposed to Mitchell's even though there are points of agreement over the substance of Ricardo's theories. In their interpretation, Ricardo's theories depart from the marginalist tradition in the selection of a central problem, in the coverage of topics, in the methods of analysis and in the conclusions. This is diametrically opposed to the interpretation by Marshall and S. Hollander. They see the two systems as substantively identical. One interesting and rather ironic fact is that the interpretations by Schumpeter, Knight and Stigler have many common points with the interpretation by Sraffa and interpretations supplied by the economists of the Cambridge School. They all share the following views: that there is not much room in Ricardo's analyses for demand; that the distribution of income is prior to and separate from the pricing of commodities; that Ricardo's main emphasis was on extensive cultivation (hence it cannot be properly claimed that he had a marginal productivity explanation of rent); and that he ignored or did not consider utility and scarcity as fundamental concepts. Ricardo did not utilize the procedures of maximization as tools of analysis; in short, his economics were dramatically different from the marginalist ("neo-classical") tradition both in spirit and in substance. The irony is perhaps that the very same characteristics seen as "analytically deficient," "aberrations," and "fallacies" or perhaps simply "incorrect" by Schumpeter, Knight and Stigler are considered to be strengths by Sraffa and the Cambridge tradition. This fact alone leads to the observation that even if different interpreters suggest substantively similar results, they may have quite opposite evaluations of the theoretical, analytical or empirical value of such results. This further suggests that the interpreter's own stance and

developments taking place in the field greatly influence their final assessments of the value of works in economics. It also indicates that their claims to a "correct" evaluation of Ricardo – based on the belief that objectively designed tools of evaluation assure that such "correctness" remains subjective.

Ever since Sraffa published the famous edition of Ricardo's Works and Correspondence accompanied by his introductions, and his book Production of Commodities by Means of Commodities in 1960, there have been dramatic changes in the interpretations of Ricardo and his scholarship. These changes are both quantitative and qualitative. Starting in the 1950s and 1960s, there have been an unprecedented number of interpretations which investigate the economics of Ricardo, aspects of Sraffa's reconstruction, Sraffa's own contributions vis-a-vis Ricardo's theories, interpretation of interpretations, etc. Qualitatively (as evidenced by the recent interpretations of the last ten years¹⁴) the discussions have risen to such heights that one cannot help but think that the issues now raised and the models proposed are far beyond issues and problems discussed in any of Ricardo's writings. Different interpreters now attempt to systematically connect or contrast their particular view of Ricardo's economics with different traditions of economic thought. In these interpretations, Ricardo is sometimes pushed into the background and models are discussed with a terminology and rigor which is a long way from Ricardo's actual writings and discussions. The debates over the economics of Ricardo have evolved into debates between competing schools. Indeed, Ricardo has staged a comeback with Sraffa's reconstruction. Sraffa's interpretations went unchallenged for about twenty-five years and are considered by many as the definitive interpretation for decades to come. Samuel Hollander's book, The Economics of David Ricardo represents the first comprehensive challenge to certain aspects of Sraffa's reconstruction. In fact, D.P. O'Brien regards the whole book as a "reaction against the extraordinarily garbled version of the history of economic thought which has emerged from Cambridge (England),

particularly following Production of Commodities."¹⁵ Similarly, Mark Blaug wrote that "in reacting to Sraffian and Marxian simplifications of Ricardo, Hollander has simply gone overboard in the opposite direction and turned Ricardo into a peculiarly anaemic forerunner of Marshall and Walras."¹⁶ After Sraffa's reconstruction there have been debates among the Marxist economists as well which question and analyze the relationships, similarities and differences between Marxism and Sraffa's Ricardo. As for the problem of multiplicity of interpretation, the point is: 1) Sraffa's interpretative method and the substance of his interpretation is in itself a novel interpretation; 2) Sraffa, by carrying his interpretations into a logically coherent system and by greatly influencing the current theoretical debates of his time, has led to a further multiplicity of interpretation of Ricardo's economics.

The significance and the continued influence of Sraffa's interpretations, therefore, can be best understood if his interpretations are studied as a two-staged reconstructive process. In other words, it is neither Sraffa's introductions per se, nor his own book which accounts for the influence and the longevity of his reconstruction. It is the combination of both. In his introductions, Sraffa reinterprets the meaning of Ricardo's theories of value and distribution and corrects the mistakes he saw in the earlier interpretations. Sraffa, in the introductions, is a historian of economic thought. In this sense, his interpretation is similar to those of Schumpeter, Stigler, Mitchell, and S. Hollander. In his book, however, Sraffa is a theorist. He puts his interpretation to "use,"¹⁷ and constructs a system which deals with some of the issues Ricardo dealt with (e.g., invariable measure of value), and utilizes some of the concepts and tools he thinks were used by Ricardo (e.g., corn model logic). In this sense, he is closer to Marx and Marshall. Marx saw the origins of "Marxism" in Ricardo and built his theory of exploitation on the idea of surplus value and utilized the labor theory of value to construct his theory of profits. Marshall saw the origins of "neo-classicism" in Ricardo and found the origins of his theories in the writings of Ricardo. Sraffa finds the origins of his own

"capital-free analytic"¹⁸ in Ricardo. We shall now study the comparative significance of Sraffa's interpretations presented in his introductions as well as in his book.

Sraffa's interpretations of Ricardo as put forth in his introduction(s) are very different from all previous interpretations in its style and substance as well. Sraffa's interpretations are different from those prior in that it represents the first real scholarly attempt (in the modern sense) to reconstruct Ricardo's theories of value and distribution. Sraffa uses a much larger body of material than what was available to most of the interpreters included in this study. It is a reconstructive interpretation because it attempts to correct some of the confusions and misconceptions in the previous interpretations. It seeks to put one of the most complex and confusing (but nevertheless vital) aspects of Ricardo's economics into perspective: the theory of value. Sraffa's interpretation is distinguished from the previous ones in its scholarly style: almost every assertion or interpretative statement made is supported by some textual reference without going into issues which may be superficial or remotely irrelevant to his main topic of discussion. In this sense, he sets a new standard of precision and textual support. We shall have more to say about Sraffa's method of interpretation, but at this point it suffices to say that Sraffa constructs a chronology of the developments of Ricardo's thoughts. He uses Ricardo's private correspondence and other lesser known writings in an attempt to reveal the nature and the underlying logic of Ricardian theories of value and distribution. He traces the changes Ricardo made in successive editions of the Principles and the circumstances which underlie those changes. Sraffa attempts to reconstruct the meaning of Ricardian theories as they were intended by establishing the logical sequence and genesis of his theories of value and distribution. He constantly searches for clues in Ricardo's private letters as to the circumstances and the underlying reasoning, all of which he believes sheds light on the understanding of his system as a whole. The only other interpreter to make use of letters to recover a sense of the genesis of Ricardo's theories is Hollander.

Sraffa's interpretation differs from some of the previous interpretations in its substance. He claims unambiguously that Ricardo had a labor-embodied theory of value. According to Sraffa, Ricardo might have had a few "moments of discouragement" with the inherent difficulties of the problem, but his theory of value (in essence and in emphasis) was the same throughout. This interpretation differs from the interpretations by Marshall, Mitchell, Schumpeter, Knight, Stigler and Hollander. Sraffa argues that Ricardo did not "retreat" from a labor-embodied theory of value back to Smith's component parts of the price theory. This interpretation which is presently accepted by interpreters who follow (including Hollander), differs especially from the interpretation by Marshall. Sraffa pointed out the importance of the "curious effect" in Ricardo by arguing that the discussion was in fact designed to counter Smith's theory of value. On this point Sraffa's interpretation concurs with Marx's interpretation. The term "curious effect," which was used by Ricardo himself in a letter written to Mill, appeared for the first time in Sraffa's introduction.

Perhaps one of the most original aspects of Sraffa's views on Ricardo was his interpretation of the invariable measure of value. The subject of the invariable measure of value puzzled many commentators on Ricardo and is either treated unsatisfactorily or simply ignored. The confusions seems to stem from the abstract nature of such a concept, which leads to doubts about the empirical feasibility of finding such a measure. The problem seems to be that the interpreters of Ricardo were uncertain about whether he was searching for an actual commodity which was invariant or rather sought to establish the conditions a commodity would have to satisfy in order to be invariable in value. This comes very close to identifying the problem of a measure with that of the law of value. As will be remembered, Malthus assumed that the two were the same. Of course, the problem was rendered even more complex by the changes Ricardo made to the qualities of the invariable measure in successive editions of the Principles. In the labor-embodied framework, in the absence of a proper role for invariable measure of value, it is very

difficult to place Ricardo's theories of distribution into meaningful perspective. As a result, some interpreters claimed that one of Ricardo's major theorems, the inverse wage profit relation, was merely a truism. Still others, being unable to find a connection between invariable measure and distribution theory, regarded his search as an obsessive intellectual exercise unconnected to his theories of distribution. Sraffa's interpretation suggests a feasible explanation for the place of invariable measure of value in Ricardo's system. He explains that the purpose of the search is not to find an actual commodity, but to establish the qualities of the measure. He also explains that it is indeed difficult to establish qualities of the measure because the size of national product appears to change when the division of this product between the classes changes. It is generally accepted that Ricardo assigned much importance to the subject of invariable measure of value. In fact, he considered it an essential component of his system and struggled with the concept to the end. Thus, it is absolutely essential that his interpreters should find a meaningful role for such a concept in their interpretations of his analytic system if they claim that their interpretations reflect Ricardo's intentions. Otherwise, interpretations become vulnerable to charges of misrepresentation. On this score, the answers provided by the interpreters included in this study for the role of invariable measure of value are less satisfactory than Sraffa's. Marshall did not deal with the issue at all, Schumpeter considered it an obsession, an "intellectual exercise," Knight, Mitchell and Stigler did not deal with the issue, Marx concluded that Ricardo became confused between value as "cost of production" and value as "labor embodied," and Hollander, although he did not ignore the invariable measure of value, he ignored the fact that it was important for Ricardo.

Finally, there is an aspect of Sraffa's interpretation that later became a subject of controversy. This is his conjecture about the "rational foundation" of Ricardo's early principle that "the profits of the farmer... regulate profits of all other trades." The details of this interpretation were given above. The significance of Sraffa's conjecture is that it shows how Ricardo, in his early theory of profits, conducted his analysis in terms of one

commodity (corn) and determined the rate of profit without any resort to valuation in purely physical terms. Thus, in this model, it is possible to divorce the determination of prices from the determination of incomes and the latter precedes the former. This is contrary to modern teachings. Later, as a result of Malthus' constant criticisms, Ricardo wanted to generalize his "material rate theory" by utilizing a labor-embodied theory of value. For that purpose, Ricardo replaced corn with labor embodied but the logic of his system was preserved. In other words, in the Essay, Ricardo assumed:

$$r = \frac{\text{Corn as output} - \text{corn as capital (i.e., advances of necessities to labor)}}{\text{Corn as capital (i.e., advances of necessities to labor)}}$$

and in the Principles, corn is replaced by labor:

$$r = 1 - \frac{\text{Total labor}}{\text{Labor embodied in necessities}}$$

where (r) is the profit rate. His obsession with the invariable measure of value was to work back to the simple logic of this early model. In his introduction, Sraffa makes it clear that Ricardo's reasoning was never stated as such. Although it was a conjecture on his part, he nevertheless supports it with quotations taken from correspondence between Ricardo and Malthus to show that discussions along these lines were taking place.

As shown above in Chapter Two of this study, Malthus also believed that in the Essay, Ricardo had a "corn theory" of profit and understood the table in the Essay as having been constructed in terms of physical quantities of corn. Mitchell pointed out that Ricardo had at one time had a corn theory of profit. Thus, the idea that Ricardo had at one time a corn theory is not suggested by Sraffa first. Moreover, Sraffa's conjectures about

the logic and the disappearance of such theory were covered in only one page in his famous introduction. Yet, in recent years, this particular interpretation is made the subject of intense controversy. Hollander devotes a chapter to the issue and denies the existence of a corn model in Ricardo altogether. Several other interpreters have joined the controversy. The question presents itself: why was it that the corn model escaped controversy until Sraffa? Thus full significance and the implication of such a method is borne only after the publication of Production of Commodities by Means of Commodities. Several aspects of Sraffa's book are examined in the last chapter, and we shall have more to say about Sraffa's system below in our discussion of conceptualization. At this point it must be mentioned that Sraffa not only made full use of the method he saw in Ricardo (the corn model logic) but also employed concepts and dealt with problems which are considered by many interpreters to be characteristically Ricardian. He searched for standard of value independent of demand (Malthus claimed that Ricardo ignored demand). Sraffa's standard commodity was unaffected by the changes in the distribution of total product between wages and profits: the property Ricardo wanted his invariable measure of value to possess. Sraffa, in the Preface of his book, announced that he was not assuming any sort of returns to scale but added that there was no harm in assuming the constancy of returns. Marshall, Schumpeter, Knight ("the fourth aberration") et al., attributed the constancy of the scale assumption to Ricardo. Sraffa divided commodities into "basics" and "non basics" which corresponded to Ricardo's division of goods into the "wage goods" and the "luxuries." Sraffa considered only the production of commodities and Ricardo is accused of ignoring the "real meaning" of production: the production of services (Knight's second "aberration"). Sraffa explicitly stated that his analysis had nothing to do with the notion of increments, and Ricardo was accused of not understanding the notion of increments (Schumpeter, Knight, Stigler). In Sraffa's model, distribution is divorced from valuation and Ricardo was accused of the same. In short, Sraffa's concepts and the problem(s) he tackled are considered Ricardian by some of the interpreters included in this study. Most

characteristically, Sraffa has solved Ricardo's problem of invariable measure of value as he understood the problem. In his book, Sraffa was able to demonstrate that aggregates such as wages, profits and prices of production can be determined outside the marginalist framework. He attempted to re-establish the approach to economic analysis, the roots of which he finds in the classical political economists and Marx. The essence of this approach is the concept of the surplus of commodities over the necessities required for their production. This approach refuses to treat the exchange relations as isolated phenomena but instead seek to explain the exchange relations in the conditions and the circumstances of production.

Sraffa's book, in addition to the characteristics outlined above, has provided powerful arguments against the aggregate version of marginal productivity theory of distribution. His analytic arguments became major technical issues in the ensuing capital controversy and were used as weapons by the Cambridge economists. The way Sraffa "used" his interpretation of Ricardo and provided arguments are considered by some to have profound repercussions for the marginalism and Marxism that has brought Ricardo back to the economic stage and has resulted in new rounds of multiple interpretations.

Sraffa's interpretations of Ricardo, his particular approach, his critique of marginalism, the capital controversy and subsequent developments have all led economists to claim that there are two distinct approaches and two rival traditions in the history of economic thought which stemmed from Adam Smith. The marginalist branch is developed by the economists of the Longfield-Senior group, by J.S. Mill and subsequently by Jevons, Menger, Walras, Marshall and today's Samuelsons. This approach characterizes economic activity as optimal utilization of scarce resources for the satisfaction of human wants. The core of this approach is said to be the model of pure exchange; prices are interpreted to be indexes of scarcity relative to endless desires. Income distribution turns out to be an aspect of pricing and production processes are stages which connect consumers' tastes to the initial endowments of resources.

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The other approach is the classical (or surplus) approach which again stemmed from Smith and was developed further by Ricardo, Marx, Dmitriev and Sraffa. In the classical approach, Ricardo, as explained by M. Dobb,¹⁹ "refashioned Smith's theory of value to make condition of production, and in particular quantities of labour expended in production, the basic determinant alike in capitalist and pre-capitalist society." The explanation of exchange relations are based on the conditions and circumstances of production. The distribution of income is explained "in terms peculiar to itself and not as an outcome of general supply-demand exchange relations"; in other words, distribution takes priority over pricing.

This two-way division of traditions (sometimes called "The Dual Development") is not a recent development. As we studied above, Schumpeter saw Ricardo's analysis as a "detour." He claimed that Ricardian theories were further developed by Marx. Before Schumpeter, Jevons also excluded Ricardo from the demand-and-supply tradition based on utility. Nevertheless, Jevons, Schumpeter and Knight interpreted Ricardo's deviations as weaknesses. It was only after Sraffa's critiques (starting from 1926) of marginal utility theory of value and distribution, and after his construction of a basic system he thought represented a "prelude" to an alternative paradigm, that the characteristics of Ricardian economics came to be interpreted as strengths. Far from being a "detour," they constituted the true tradition.

Among many other points, it is especially this conception of the dual development hypothesis which Hollander strongly opposes. He attempts to show that the branch which descends from Smith down to today's Samuelsons is continuous. The details of Hollander's interpretation of Ricardo's economics are studied at length in the last chapter. The significance of his method for the problem of multiple interpretation and his methods of exegesis will be addressed below. At this stage it seems appropriate to place Hollander's interpretation in a broader perspective and to highlight the differences between his interpretation and those of the others included in this study.

The interpretation by Hollander represents a serious challenge to the consensus which grew around Sraffa's interpretation of Ricardo and to the subsequent refinements of the economists of the Cambridge tradition. It also represents a challenge to most of the mainstream and neoclassical interpretations since it disagrees with almost all of the traditionally recognized characteristics of Ricardian economics.

Hollanders' interpretations differ from all previous interpretations in terms of its scale. It is the largest and the most comprehensive attempt to identify the economics of Ricardo with neoclassical economics and to place him on a continuous line that descends from Smith to modern marginalist neoclassical economics. Hollanders' thesis is a stark contrast to the dual development hypothesis and the idea of marginalist neo-classical revolution and transformation. Thus, Hollander's interpretations of Ricardo contain both a "micro" and a "macro" level which continuously interact with each other. On "micro" level, Hollander reinterprets aspects of Ricardian economics by using modern neo-classical terminology and an interpretative process which undertakes to establish the meaning of Ricardo's theories. This process often appeals to the intentions of Ricardo as a means of validating interpretative hypotheses. The "macro" interpretation involves placing Ricardo in a context in the history of economic thought. For this purpose, Hollander attempts to show that his particular reconstruction is consistent with the general tenets of the marginalist tradition, and he also compares and contrasts his interpretation with the interpretations by other commentators. Hollander tries to falsify those which contradict his main thesis. Thus, there is an intimate connection between his particular interpretation of the economics of Ricardo and his place in the history of economic thought. In this context, it may be relevant to remember that Hollander's book is a part of his trilogy on the classical economists: A. Smith, Ricardo, J.S. Mill. One of Hollander's stated purposes in writing his books and articles is to change what he calls "standard" and "erroneous" perceptions. Two main targets appear: the interpretations of Schumpeter and Knight and the

interpretations of Sraffa. One of the main issues is the "unconnectedness" or "logical priority" of income distribution to price. As previously shown in the Schumpeter-Knight version, such unconnectedness is a weakness in Ricardo, perhaps even a failure to appreciate the nature of economic analysis. In the case of Sraffa, however, such separation is a strength, perhaps even a deliberate choice. Aside from the judgments about the virtues or shortcomings of such separation, these two views agree that such a separation exists in Ricardo. Hollander realizes this and attempts to change "the standard interpretations" at the cost of opposing interpreters who ultimately consider themselves a part of the tradition with which Hollander attempts to identify Ricardo. This is reflected in Hollander's works and gives his writings a controversial, polemical and "ad hominem" tone which distinguishes his interpretations from those previously included in this study.

Hollander disagrees with almost all traditionally recognized characteristics of Ricardian economics. He claims that Ricardo's theory of value was essentially the same as Marshall's. Ricardo used the labor-embodied argument as a "strong case" for empirical reasons, but he in fact subscribed to a demand and supply determined, utility-based theory of value. He claims that Ricardo gave great importance to the role played by demand in the determination of values and never considered the problem of invariable measure of value as an important element in his system. This interpretation disagrees with all of the interpretations, except Marshall's, included in our study. Ricardo, according to Hollander, never used the corn-input, corn-output model and he never had a theory about the profit in agricultural sector determining the general profit rate. This interpretation disagrees with the interpretations by Malthus, Mitchell, and especially Sraffa. In Ricardo's theories, wages were always assumed to vary. He never considered wages as being fixed at or above the subsistence level. For Hollander's interpretation the issue is not whether wages are interpreted to be at the subsistence level, but it is the fixity of wages he opposes most significantly. Thus, wages are variable and determined within his "main model" (like all other critical aggregates) by the forces of demand and supply. This again is contrary to all

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interpretations except perhaps Marshall's. Hollander claims that the Corn Laws, the Bullion Controversy, and practical political problems of the time did not influence Ricardo's theories; Ricardo never commits himself to any sort of prediction. On the Corn Law issue he deliberately exaggerated the problem in the Parliament without allowing his theories to be influenced by the issue. This interpretation, which in effect claims that Ricardo isolated himself from the practical problems of his time contradicts the entire thesis of Mitchell. It also contradicts the interpretations of Malthus, Marx and others because it suggests that Ricardo was not concerned with class conflicts between landlords and capitalists and the workers. Hollander's Ricardo appears as an abstract theorist who designed several abstract models using deductive reasoning but without committing himself to any specific model. His models are nested in a larger economic model which investigated the problem of allocation of scarce resources among competing uses. But he did not create his larger model to have any sort of predictive powers. He was a theorist with a comprehensive vision of interdependence of variables. This is in contrast to Malthus' interpretation, which claims that Ricardo ignored multiple and mutual causation. It is also in stark contrast to Schumpeter's interpretation which claims that "the comprehensive vision of universal interdependence of all the elements of the economic system that haunted Thünen probably never cost Ricardo as much as an hour's sleep."²⁰ From Hollander's interpretative processes, Ricardo appears as a general equilibrium economist, very much in the same tradition as Walras. This particular outcome insulates Ricardo from economic controversies, especially of the 1960s, at the expense of losing the socio-political, ideological content of his theories.

This picture of Ricardo is in conflict with Ricardo's life. Ricardo was very much involved with the current problems of the time. Both Ricardo and Malthus wrote with a view to influencing the current problems of their times. Ricardo's pamphlets and his essays were directly influenced by the current economic problems and political struggles. He took a definite position in the corn struggles, was involved in the famous bullion

controversy and involved (indirectly) in the bullion report, and finally entered into parliament in February 1819. One cannot assume that Ricardo sat in the Parliament for no reason. As far as Ricardo's analytical system is concerned, Hollander ignores Ricardo's continuous preoccupation with the problem of invariable measure of value. According to Hollander, Ricardo never regarded the invariable measure of value as an important element in his own theory. It was perhaps an obsession or an "intellectual exercise," as were almost all of the principles Ricardo advanced in his Essay on Profit and the Principles. Ricardo, however, was deeply troubled by and involved with the problem of invariable measure of value. He was still working on the problem in his unfinished paper on "Absolute Values and Exchangeable Value," which he had been engaged with in the last weeks of his life. Even in his last letter to Malthus (dated 31 August 1823, eleven days before he died), Ricardo discussed the entire problem of the invariable measure. Hollander by-passes the significance of the invariable measure of value by reducing Ricardo's theory of value to a "strong case" and by attributing identical factor-ratios (equal organic composition of capitals) assumption to Ricardo, Hollander excludes the invariable measure from having any operational role in Ricardo's growth theory. This is in contrast to interpretations by Malthus, Marx, and especially Sraffa.

Hollander's extensive study portrays Ricardo as being completely in line with the general equilibrium framework. In this framework, given the preexisting property relations (the initial factor endowments), all prices and incomes are determined simultaneously by the forces of demand and supply. Ricardo's theories are completely devoid of predictions and thus cannot be subjected to any empirical testing. This in turn means that Ricardo did not build any models and his reputation as the "first model builder" is based on an incorrect attribution. As we saw above, Hollander ascribes to Ricardo G.L.S. Shackle's methodology of taxonomy and philosophy of "uncertainty" and "unpredictability" in economics. Perhaps as a result of Hollander's explicit declarations that Ricardian economics has much in common with the neo-classical economics, it generally escapes

attention that such methodological positions ascribed to Ricardo set him far apart from logical positivism, operationalism and functionalism which are the elements of the "modernist" methodology. The positivistic philosophy, as a logical framework, emphasizes that social sciences should be modeled upon the natural sciences (especially classical physics and mechanics) and that prediction is the ultimate goal of science. Logical positivism places great value on the observable implications of a theory, usually in terms of quantifiable units, which is, after all, what separates the "scientific knowledge" from other forms of knowledge. Milton Friedman defines economics as "a positive science [composed of] tentatively accepted generalizations about economic phenomena that can be used to predict the consequences of changes in circumstances"²¹ and claims that "the ultimate goal of a positive science is the development of a 'theory' or 'hypothesis' that yields valid and meaningful (i.e., not truistic) predictions about phenomena not yet observed."²² Thus, Hollander's central thesis that Ricardo had a great deal in common with neo-classical economics is seriously damaged by depicting him as being totally disinterested in predictions, models and any sort of observable, testable empirical model building. In fact, this representation of Ricardo brings him closer to the neo-classical perception of Cambridge economics. For example, Blaug, a neo-classical economist, when comparing the neo-classical and Cambridge economics claims that "in Cambridge economics no one has ever done any empirical work."²³ He casts a vote in favor of neo-classicism because he believes:

if we choose approaches to economics, as we ought to, in terms of whether the approach yields testable empirical implications and can be fruitfully developed and extended into different areas, then it doesn't seem to me that there is any doubt in choosing between neoclassical economics and Cambridge economics we ought to choose neoclassical economics.²⁴

The details of Hollander's interpretation have a great deal in common with the interpretation by Marshall. Yet Hollander differs from Marshall in terms of the scale of

interpretative enterprise undertaken; he attempts to cover all aspects of Ricardo's economics and devotes a great deal of energy and space to critiquing other interpretations. He also differs from Marshall by supplying "evidence" from the various writings and letters of Ricardo to support his interpretative claims. It is this last characteristic which makes Hollander's exegesis puzzling while at the same time challenging to many. In other words, by using the same "open books" and the same body of material, Hollander is able to come up with interpretations which are often supported by lengthy quotations directly from Ricardo, controverting interpretations supplied by almost all other notable commentators on Ricardo. Thus, the source of Hollander's "success" in formulating an opposite interpretation, in addition to his knowledge of all of the writings of Ricardo, is found in his method of interpretation and the tools of interpretation he uses. Deferring the examination of his exegesis, we shall point out some of the crucial questions concerning the "art" of interpretations in general. Hollander's interpretations bring the following questions to mind. If there are apparent or perceived conflicts between two different parts of the text, is there any way to adjudicate between these two conflicting sources? Can one source be given priority over the other? If so, on what basis? Can the "evidence" presented by the interpreter ever be neutral? Can one ever know the intentions of the original author? Even if the intentions are known, can that be a basis for a "valid" interpretation? Can one satisfactorily transfer from one economic system to another and claim that there are no substantive differences between the two? Can one use two conflicting approaches to interpretation interchangeably? In other words, is it legitimate to use purely an intentionist approach when interpreting one aspect of the author, thus follow a formalistic method, and later switch to another method and claim indeterminacy of meaning?

More than any other economist included in this study, Hollander's controversial and provoking interpretative results and his particular method(s) of interpretation raise questions in the minds of his readers about the unexplored hermeneutic nature of

economics. This should perhaps be counted among his significant services to the theory of interpretation in economics.

Notes

1. K. Marx, Theories of Surplus Value, International Publishers, New York, 1952, p.202.
2. Ibid., p.268.
3. Ibid., p.233.
4. See P. Sraffa, Works, pp.xxxiv-xxxv.
5. Schumpeter, History of Economic Analysis, Oxford University Press, 1959, p.594.
6. M. Blaug, The Cambridge Debate on the Theory of Capital and Distribution, edited by G. Caravale, Università degli studi di Perugia, 1976, p.92.
7. A.C. Pigou, ed., Memorials of Alfred Marshall, Macmillan, London, 1925; quoted in K. Bharadwaj, "The Subversion of Classical Analysis: Alfred Marshall's Early Writings on Value," Cambridge Journal of Economics, 1978, 2, p.269.
8. See J. Robinson, Collected Economic Papers, Volume IV, Basil Blackwell, 1973, p.247.
9. A famous phrase of Gadamer's describing the mutual indebtedness of interpreter and interpretable text. See the discussion below.
10. D.P. O'Brien gave a quotation from Marshall: "controversy, the sterile consumer of time and energy." "Ricardian Economics," Oxford Economic Papers, Vol. 34, March 1982, Number 1, p.247.
11. This implies that the objective function is continuous. The continuity of the objective function, however, is not a necessary condition but it is a sufficient condition. By algebraic manipulations the same principle can be shown to be applicable to discontinuous functions as well.
12. See P.D. Groenewegen, "Three Notes on Ricardo's Theory of Value and Distribution," Australian Economic Papers, Vol. II, (18), June 1972, pp.53-64. Groenewegen argues (p.55) that there is nothing special about "93 per cent" interpretation. He point to a numerical example wherein Ricardo investigates the impact of various degrees of capitalization on value (in terms of durability of capital expressed as the life of machines in years). Ricardo considers, if machines last 100 years, value would fall 68 per cent (32 per cent theory of value), if machines last 10 years, value would fall 28 per cent (72 per cent theory of value), 13 per cent for 3 years and 6 per cent for only one year, yielding alternatively an 87 per cent and Stigler's 93 per cent theory of values.
13. F.H. Knight, Introduction to the Principles of Economics by Menger, The Free Press, Glencoe, Illinois, 1950, p.11 and p.15.
14. Some examples of these recent interpretations are included in a book entitled The Legacy of Ricardo, edited by Giovanni A. Caravale, Basil Blackwell, Oxford, 1985.
15. D.P. O'Brien, "Ricardian Economics and the Economics of David Ricardo," Oxford Economic Papers, Vol. 33, Nov. 1981, Number 3, p.353.

16. Mark Blaug, "What Ricardo Said and What Ricardo Meant," The Legacy of Ricardo, edited by G.A. Caravale, Basil Blackwell, Oxford, 1985, p.9.

17. Leo Rogin, The Meaning and Validity of Economic Theory, New York, 1956, p.4 states that "the objective meaning of the economic theories which have challenged the attention of society is to be discovered in the use to which they are put." Italics added.

18. A term suggested by Robert Solo in private correspondence.

19. M. Dobb, The Theories of Value and Distribution Since Adam Smith, Cambridge University Press, 1973, pp.112-117.

20. Schumpeter, History of Economic Analysis, Oxford University Press, New York, 1959, p.472.

21. Milton Friedman, Essays in Positive Economics, Phoenix Books, The University of Chicago Press, Chicago, 1953, p.39.

22. Ibid., p.7.

23. M. Blaug, The Cambridge Debate on the Theory of Capital and Distribution, p.146.

24. Ibid., p.159.

CHAPTER TEN: THE PROBLEM OF MULTIPLE INTERPRETATIONS

This Chapter investigates the problem posed by the multiplicity of interpretations of Ricardo. As shown above, the differences in interpretations are sometimes confined to certain aspects of Ricardo's theories and sometimes the disagreements seem to concern the basic tenets of his system and his place in the history of economic thought. The analysis of this Chapter revolves around the following questions: based on the interpretations investigated in this study, why does such a multiplicity of interpretation exist? How is it possible and how does it come about? What is the significance of this multiplicity? There seems to be at least one point all commentators agree upon: understanding Ricardo is very difficult. The diversity of interpretations is partially due to the difficulty of understanding Ricardo. Every interpretation involves an interpreter and interpretable material; the act of interpreting is an interaction between interpreter and the interpretable material. Thus, the analysis of this Chapter starts from the elements which are agreed to be present in the writings of Ricardo and moves to the other side, the interpreter. Finally, the last section and the next chapter try to assess the significance of the multiplicity of interpretation from the perspective of hermeneutics.

I. THE STYLE OF RICARDO

As Marshall pointed out repeatedly, some of the confusions and the multiplicity of interpretations may have been due to Ricardo's literary style: his choice of words and his way of expressing ideas. It is generally agreed that Ricardo's reasoning is terse and his arguments are condensed, without much aid or concession to the reader. Ricardo did not make much use of historical facts and figures. It is agreed that Ricardo's Principles is not intended to be a "textbook" with repetitions and clarifications, or devices such as graphs, etc. to simplify the exposition of ideas. It is written for those who have at least a preliminary understanding of the issues and topics discussed. Due to the complexity of the

subject matter, Ricardo sometimes had to use the same word to express different concepts (or different words to express the same concept), such as "wages," "price of wages," "price of labor," "value of wages," etc. He sometimes did not differentiate clearly between some of the key terms he used; for example, the terms "absolute value," "invariable measure," "real value," and "absolute price" were used interchangeably. Ricardo himself admitted that he was a poor master of language and sought Mill's assistance in the organization and composition of the Principles. In our study, Marshall is the only economist who complained about Ricardo's style and attributed almost all misunderstandings about the economics of Ricardo to his stylistic weaknesses. As shall be seen in the examination of Marshall's exegesis, this exclusive attribution is not shared by other interpreters. We found it to be a justification for his flexible exegetical techniques.

II. CHANGES IN THE BODY OF MATERIAL AVAILABLE TO INTERPRETERS

Another cause for the difference in interpretations may be the fact that recent interpreters are faced with a larger body of Ricardo's writings. Sraffa's edition has introduced a considerable amount of new material which was not accessible to previous interpreters. Some of Ricardo's letters were available prior to Sraffa's edition but Sraffa included hitherto unpublished letters (e.g., Ricardo-Mill correspondence), an unfinished paper, speeches, etc. in his edition.

The publication of the private papers and letters gave access to important information about Ricardo's mental habits and style, provided clues about his views on publication of the Principles and about the genesis of some of the principles propounded. It also revealed information about his position toward current economic and political issues. For example, from Ricardo's letters to Mill we now know that Ricardo was thinking about publishing his work even when he was writing his Principles; this is contrary to Marshall's belief that Ricardo did not write for publication. Ricardo's unfinished draft paper reinforced interpretations supporting the belief that Ricardo has a labor-embodied theory of value and shed new light on the nature of the problem of invariable measure of value. Sraffa's edition presented later commentators with the challenge of coping with a larger and more diverse body of writing. It also presented the exegetical problem of how to assign priority to one source in the face of a contradiction between sources. The unpublished work is assumed to differ from the published work in its explicitness, and reveals transitional arguments. Yet Ricardo's unpublished work, especially his letters may provide good clues about the thinking process of an author; they may reveal his emotional oscillations on issues, the firmness or weakness of his convictions, etc. Thus, interpreters who place value upon the discovery of the "intentions" of the author may find his letters to

be invaluable sources. As we saw above, Sraffa and Hollander make more use of Ricardo's letters than other interpreters included in this study.

III. THE NATURE OF RICARDO'S SUBJECT MATTER

Ricardo's subject matter is complex, and its many facets permit a variety of interpretations. Due to the complexity of the issues he discussed, Ricardo changed his mind a few times and at times he himself was confused. This also seems to cause some confusion in his explanations, in addition to the confusing nature inherent in his subject matter.

One of the reasons Ricardo is difficult to understand and remains so open to multiple interpretations is that he dealt with very complex and controversial problems. He investigated the distribution of income and the consequent problem of capital accumulation and economic growth. The problem of distribution of income is itself a controversial issue and is open to ideological and political considerations. Ricardo conducted his analysis of growth in macro terms by using income shares as percentages of total product. Ricardo, however, felt that he had to explain the distribution of income among the classes without assigning any a priori determining role to any particular sector of society. He felt that the origins of profit can only be explained with reference to value, thus he started his analyses (and his Principles) with a difficult concept of value. He was critical of Smith's theory of value and believed that value had to be explained in terms of conditions peculiar to itself, and not in terms of the components of price. He sought to reduce value to a common denominator of labor used in the production of the commodities. He took labor as both the input of production and the output (commodity values measured in terms of labor embodied in them). Ricardo realized that different commodities which might be used as inputs in the production process embodied different amounts of labor. Thus, he introduced his modifying principles. This created a multiplicity of interpretation as to the "pureness" of his theory of value. The determination of the causes of the change in the relative value of commodities occupied the central place in his thoughts. He was particularly interested in finding systematic patterns of change in value when wages changed, from which he hoped

to obtain a law which would tell him unambiguously how profits are affected. Ricardo felt that in order to find the cause(s) and the direction of change in the relative values of commodities, one has to be able to come up with a measure, a yardstick, which would show when two commodities are altered in relative value which one rose in value and which one remained stationary. He sought a measure invariant to both changes in relative value of commodities and its own inputs used in its production. In searching for the qualities of this measure, Ricardo changed the standard of measure a few times. This complicated the interpretations of his problem further.

There are inherent relationships between values, prices, labor-embodied and labor-commanded. Ricardo's preoccupation with the value problem, because of the relationship between values and prices, has led some interpreters (e.g., Marshall in particular) to view Ricardo's basic problem as a micro problem of determination of prices of commodities.

Different interpreters viewed the difficult nature of Ricardo's problems differently. Malthus was particularly critical of Ricardo's labor theory of value and his choices of the invariable measure of value. His criticism were constantly directed at the invariability of Ricardo's measure. Malthus interprets Ricardo's search for invariability as a search for the actual invariable commodity. Their extended correspondence reveals the difficulties involved in working with such concepts as value and price as well as their confusions about the determination and measurement of both concepts. Sraffa, however, claims that Ricardo was not interested in finding an actual invariable commodity, but rather, he was interested in finding the conditions which a commodity would have to satisfy in order to be invariable. Sraffa points out another complexity in Ricardo's theoretical structures by connecting his search for an invariable measure to the problem Ricardo declared to be of utmost importance for economics: the distribution of income. Sraffa claims that Ricardo was deeply troubled by the realization that the size of national product appears to change when the distribution of income between classes changes. This change is due solely to a change in measurement because measurements are in terms of value. Naturally, values

may be altered as a result of a change in the division of income between the laborers (wages) and the capitalists (profits).

The difficulties Ricardo encountered in his analysis of distribution and growth are not, in essence, different from the those encountered in the modern theories of growth which require aggregation of the means of production. The capital controversy of the 1960s and 1970s was centered around the impossibility of measuring capital in terms of a concrete unit. Sraffa's interpretation attributes Ricardo with at least an intuitive awareness of the impossibility of measuring capital. From Sraffa's interpretation it appears that Ricardo, in the course of his examination of the impact of changes in wages on the relative values, realized that the differences in the relative values of the commodities are also due to differences in the amount of capital used in the production of those commodities. He found no way of ascertaining value of capitals. He wrote to McCulloch on August 21, 1823: "I would ask what means you have of ascertaining the value of capitals?" Ricardo instead concentrated his efforts on the changes in value caused by the changes in wages. No matter how unintegrated and undeveloped such thoughts may have been, the resemblance to unresolved controversies of our time reveals more clearly the theoretically difficult nature of Ricardo's works.

Marx viewed the difficulties involved in the nature of Ricardo's subject-matter from a different perspective. According to Marx, Ricardo has made a good start by going back to the creation of value in the sphere of production and correctly expounded the principles of the relative surplus value. He pointed out that profits, however, are realized in the sphere of exchange. Thus, Marx saw the difficulty in Ricardo's system as being the transformation problem: values in terms of labor-embodied have to be transformed into prices. This is itself a complex problem; one which Marx himself left in an incomplete state.

Marshall claimed that Ricardo dealt with the difficult problem of price determination essentially with the demand and supply framework. Ricardo's preoccupation with the

permanent tendencies led Marshall to interpret his theory as a long-run price determination in which the changes in the cost of production are given heavier emphasis than the changes in demand. He claimed that Ricardo was aware of the distinction between the long-run and the short-run but could not make a clear adjustment in the variables when moving from one time period to another. Marshall also believed that Ricardo was aware of variable returns but took the constant returns as an average. Because of Ricardo's awareness of the intensive margins, Marshall interpreted Ricardo's theory of rent in terms of the marginal contributions of capital and labor applied to the same rent. He thus connected his theory of rent to the marginal productivity theory of distribution.

Hollander claims that Ricardo devised a complex growth model with dynamic properties. Ricardo investigated the distribution and growth within the general allocation and exchange framework. He claims that for Ricardo, the distribution was an aspect of pricing and his profit rate equalization between the sectors of the economy was based upon a demand and supply analysis. A closer investigation of Ricardo's principle of profit rate equalization provides the key to his "sophisticated analyses" of the allocation of scarce resources among the competing uses. Hollander is able to come up with this interpretation by ranking Ricardo's various statements according to their importance, and operability with the help of subjectively chosen interpretative devices.

There is probably textual support in Ricardo's works for all of these varying interpretations. The multifaceted nature of the problems of value, distribution and growth, coupled with the differences in perspective of the interpreters (which shall be investigated later), and the differences in perspective of varying schools bring to bear on Ricardo's analysis views which are at times diametrically opposed. Ricardo has made changes (some of which are already mentioned above) between the Essay and the Principles and between the subsequent editions of the Principles which contributed to the multiplicity of interpretations. For example, he changed the definition of the natural wage between the Essay and Principles which caused his theories of distribution and the process of

accumulation to be interpreted in diverse ways. As shown above, the definition of natural wage in the Essay is open to interpretation of Ricardo's theory of accumulation as a dynamic process in which real-wage rate remains constant in the presence of equality between the growth rate of population and of capital. In the Principles, however, the definition of natural wage rate is strictly associated with a constant level of population, to which Malthus strongly objected. He called it the "most unnatural" definition of natural wage rate, since in Malthus' opinion, such a price could not occur for hundreds of years.

Finally, it should be pointed out that Ricardo's analyses are inconclusive at some fundamental levels. It is clear that Ricardo has left his theory of value in a somewhat unfinished state. He could not incorporate the invariable measure to his theory in an unambiguous way. Ricardo was continuously disturbed at having to introduce modifying principles to his value theory, and in spite of the strong objections of his close friends Mill and McCulloch, he could not overcome the difficulties presented in the famous "oak tree" example. He had to admit the importance of the time factor into his theory. In his last draft paper he seems to be closer to his original conception of labor-embodied as the best cause, but the fact that he left some things unresolved left him open to diverse interpretation. In connection with his theory of value, Ricardo cannot be said to have a conclusive theory of profit in the deterministic sense. Finally, the introduction of the machinery chapter came as an afterthought. Ricardo admitted the possibility of involuntary unemployment in capitalism but he did not have time to modify his previous constructions according to this new addition. The possibility of involuntary unemployment shifts the focus of conflict to the capitalists and workers as later expounded by Marx in his conception of "reserve army of unemployed."

IV. THE NATURE OF RICARDO'S METHODOLOGY

Ricardo's method of analysis may be seen as a source for the multiplicity of interpretations. It is known that Ricardo liked to work with so-called "strong cases" and the use of strong cases permits different interpretations. The different ways in which Ricardo's method affected the interpreters' approach to his works can be classified under three categories. First, there seems to be a disagreement over the very purpose of using strong cases. It is not agreed whether Ricardo used strong cases to elucidate the general economic principles (without paying much attention to disturbances) or whether he used strong cases to improve the predictive powers of his models. Second, and more significantly, the use of strong cases permits different interpretations as to which variables were assumed to be significant and operational and which variables were frozen. It is usually assumed that Ricardo froze "less important" variables and worked with only the strongest variables. Thus we have a very significant factor in the multiplicity of interpretations: the relative importance of the causes. Differences of opinion about the relative importance of causes have been one of the major sources of multiplicity in the interpretations, not only in economics but also in all historical interpretations. In the interpretation of historical events, such as great wars, the major source of conflict in interpretations have been differing perceptions of the relative importance of causes.¹ As we shall see below, Malthus' interpretations and his critique of Ricardo's theories were directed towards the causes singled out in models using the strongest cases. Third, Ricardo's method also caused confusion as to whether or not he released the previously frozen variables, and if he had, when did that occur and what happened when he released them. In other words, there are differences in interpretation based on the perception of the interpreter as to how the strong cases are nested in a larger model or matrix.

Generally, Ricardo's interpreters took his method of using strong cases as a means of abstraction from what they perceive as the complicating factors. There are only a few

instances in which Ricardo touched upon his method of working with strong cases (quoted below) and he did not explicitly specify his cases in each context. Thus, for the interpreters, the real question should be to investigate whether 1) Ricardo would have appreciated the use of strong cases as abstractions or 2) if the use of "strong cases" as abstractions is admissible and consistent with the overall interpretative style of the interpreter. The first question is a vital and challenging one, especially for those who consider the intentions of the author to be a central concern. As shall be investigated in Chapter Eleven below, there is a hermeneutic school which emphasizes the impossibility and uselessness of discovering the author's intentions as a central interpretative criteria. In such an approach, the criterion for the selection of strong cases may be one of consistency. As we shall see below, very few interpreters directly addressed the issue yet in various degrees they used the strong case arguments as abstractions.

Malthus' interpretation, in large part, is based upon questioning Ricardo's choice of variables which are made operational in his strong cases. Before examining how Malthus and other commentators made use of interpretative devices based on their perceptions of Ricardo's strong cases, it may be useful to quote Ricardo. Ricardo wrote to Malthus outlining his methodological differences:

Our differences may in some respects, I think, be ascribed to your considering my book as more practical than I intended it to be. My object was to elucidate principles, and to do this I imagined strong cases that I might shew the operation of those principles.²

Elsewhere, in a letter written to Trower, Ricardo complains that Malthus, instead of trying to see the general principles explained in a given example, continuously questioned the applicability of the singled out causes to real situations.³ There are instances in Ricardo's writings where he uses the terms "strong cases" to mean numerical examples with arbitrarily chosen numbers in order to express his ideas as clearly as possible in terms of numbers.⁴ In some other instances, Ricardo uses the term to mean "an exaggerated

example" in which he deliberately chooses exaggerated figures to elucidate the meaning.⁵ Malthus' interpretation is centered around the empirical validity of the variables assumed by Ricardo as being significant and operational. He sees Ricardo's method of concentrating on only the strongest cases as a major weakness. Malthus believes that there is generally more than one cause to every problem and that the causality is interactive. He claims that "to minds of a certain cast there is nothing so captivating as simplification and generalization" and the propensity to simplify and generalize was the principal cause of error among the "present scientific writers on political economy."⁶ Malthus opposes what he perceives to be Ricardo's habit of singling out one cause, thus establishing a strong case, holding all other perfectly relevant variables constant. Furthermore, he claims that the cause which Ricardo singles out may or may not have any application to real life experiences. For Malthus, realism is the measure of "truth and utility." Ricardo, in Malthus' view, ignores multicausality. This particular method of singling out only the strongest causes, generalizing on the basis of a restrictive model and suggesting his results as solutions to practical problems were Ricardo's shortcomings. Thus, Malthus was the first economist who suggested the idea of the "Ricardian Vice."⁷ As it is known, in the course of the development of Ricardo's thoughts, Malthus constantly discovered new variables and exceptions which forced Ricardo to modify his principles. In spite of various modifications in the successive editions of the Principles, Ricardo did not make full allowance for all factors and this had a bearing on his theories.

On the subject of value, there seems to be no major disagreement between Ricardo and Malthus over the qualitative significance of labor in the creation of value. Malthus' criticisms really apply to the observation that Ricardo singled out only one cause in the creation of value and used only one measure for the variations in the real exchangeable value of commodities: labor and labor-embodied. As mentioned earlier, Ricardo took Malthus' criticisms on this issue very seriously and despite strong protests by his "followers," he did not hesitate to introduce additional causes in the determination of the

relative value of commodities. These came to be known as his modifying principles. He introduced them even though he believed the impact of these additional causes to be of secondary importance.

Malthus' belief that Ricardo did not sufficiently take into consideration all necessary causes led him to believe that Ricardo ignored the subjective element of demand: the desires and tastes of mankind. Malthus claimed that Ricardo took only what he perceived to be the strongest cause, income, as the determinant of demand (the "extent") and ignored the "intensity" of demand. Malthus believes Ricardo's exclusion of the subjective element of demand had far reaching consequences. It was the most important reason Ricardo adhered to James Mill's version of the law of markets. Furthermore, it led Ricardo to ignore the demand and supply determination of prices. In other words, Malthus claimed that Ricardo did not have a theory of individual prices because prices are determined by the forces of demand and supply. Malthus believed that Ricardo had missed "half of the question" (the upper blade of Marshall's scissors).

Malthus applied similar criticisms to Ricardo's theory of distribution. Ricardo's theory of rent was incomplete because he considered only one cause for rent: recourse to inferior lands. Ricardo's theory of profit was based on one confined case where prices of commodities did not change. Ricardo's theory of wages was based upon a confined and unnaturally restrictive definition of natural wages. Finally, as developed earlier in this study, Malthus believed that Ricardo's early theory of profit was based upon a restrictive assumption. This assumption was that the product and all expenses of production were measured in corn instead of money. In other words, according to Malthus, by assuming corn to be the input and the output, Ricardo ignored the possibilities of price effects. As we now know, this last criticism was also taken very seriously by Ricardo, so much so that the principle of the determining role of agricultural profits does not appear in the Principles. Ricardo was forced to develop his theory of profits without necessarily tying it to a specific branch of production (agriculture).

Marshall, who believed all misunderstandings about the "true" nature of Ricardo's theories stemmed from an inability to express himself clearly, attributed some of the misunderstandings to the method. Marshall believed that Ricardo singled out recourse to inferior lands as being the cause of rent and thus gave the impression that his was a theory apart from the marginal productivity explanation of rent. Marshall, using his "generosity," claimed that Ricardo had in fact the conditions of the "old country" in mind, so that by "extensive cultivation" he actually meant that the existing land would be cultivated more intensively.

As developed earlier in this study, Marshall pointed out two instances in which Ricardo "started from sharply defined assumptions to get clear results"⁸ and caused misinterpretations. First, Marshall believed that the zero demand elasticity was a simplifying assumption. It was a "violent" assumption but it succeeded in making the point that with an inelastic demand curve, any tax levied on corn would be reflected in the price of corn (due to shift in supply of corn to the left) and 100 per cent of the tax burden would fall on the consumer. Marshall points out that a more realistic case would have been a downward sloping (declining) demand curve. In this case prices would still rise but not by the same amount as taxes. The implication of this argument is that Ricardo never actually ignored demand and supply determination of prices and the price adjustment mechanisms, but his use of strong cases caused some interpreters to assume that demand had no place in Ricardo's system. The second instance of "misunderstanding" caused by "Ricardo's delight in imagining strong cases,"⁹ can be seen in his theory of wages. Marshall points out that it would be incorrect to attribute to Ricardo an "iron" law of wages by which natural wages were fixed absolutely. He points to Ricardo's recognition of customs and habits in determining wages. Ruling out the fixed wage explanations, Marshall argues by implication that Ricardo in fact believed in a marginal productivity determination of wages. As shall be seen below in detail, both of these points are shared by Hollander.

Marshall, and especially Malthus, consider Ricardo's method of working with strong cases as a weakness in different senses. For Malthus, it was a weakness because due to this particular method, Ricardo ended up ignoring relevant variables and multicausality. The mathematical precision and the simplicity were achieved at the expense of realism. Marshall's objection concerns the form. Ricardo's strong cases, together with his habit of not providing enough hints caused misunderstandings. Otherwise, logically there was nothing wrong with his thinking and his handling of economic problems. The same method, however, is considered by Schumpeter to be a major contributing factor to the consistency of his models.

Schumpeter claimed that Ricardo's success lay in his ability to narrow down the range of topics and to differentiate and isolate the analytically primary causes from the secondary causes and the philosophical and historical elements. By these means, Ricardo improved the consistency of his basic model. Schumpeter, however, criticized Ricardo of biting off more than he could chew. With his simple model, Ricardo attempted to tackle an extremely complicated macro model of economic growth in which multicausality and simultaneous determination rule. He claims that Ricardo got around the problem of determination of the profit rate by holding wages constant, net output as given and rents as being excluded. Ricardo had to use this primitive "patchwork" approach because he did not know how to nest his strong cases within a larger model. As we shall see, Hollander contests and rejects this view. According to Schumpeter, the reason Ricardo had to use such an approach is because he could not bring himself to the realization that the function of the rent theory was not to get rid of one variable and to facilitate his labor theory of value. Because Ricardo lacked the sense of utility and scarcity, he could not see that the rent theory was a special case of a larger doctrine.

A significant claim by Schumpeter is that Ricardo may have devised a simple but consistent model by freezing variables, but that his real sin was to suggest that these results were solutions to practical problems. As much as Ricardo may have been aware of the

political problems of his time, he was also sensitive to the political implications of his theories (as shown by Ricardo-Malthus debates). Thus, in an indirect way, we can assume that Schumpeter's accusation of the "Ricardian Vice" was in fact indicating that Ricardo used his particular method to improve the predictive powers of his theories and to make his points in an unambiguous way. Both of these points (i.e., that Ricardo had a "vice" and used his strong cases to improve the predictive powers of his theories), are strongly contested and rejected by Hollander.

In discussing Hollander's interpretations as they relate to Ricardo's method, one distinctive approach he follows should be made clear at the outset. By drawing justification from the knowledge that Ricardo used strong cases, Hollander, as a part of his exegesis, devises several taxonomic categories in order to rank Ricardo's theories and statements according to their operational significance. Whenever Hollander finds a conflict between two contexts, he arbitrates that conflict by deciding upon the degree of the significance of Ricardo's statements in terms of these taxonomic devices. The styles of the interpreters will be discussed below in a separate section, but because Hollander seems to justify his use of categories as interpretative devices because Ricardo used strong cases, we shall discuss here how Hollander puts these devices to use.

Hollander claims that there is no such thing as the "Ricardian Vice" because Ricardo never intended his models to have any predictive powers. Ricardo was not at all concerned with the problems of prediction in his analytical works, but rather used the pamphlets and parliamentary speeches for this purpose. Hollander agrees¹⁰ with Marshall in that misunderstandings stemmed from "Ricardo's delight in imagining strong cases." He points out that Ricardo used his strong cases to explain that general "matters of principles" in a clear fashion. Whether or not Ricardo never designed his theories for prediction remains a disputable issue, but Hollander's claim that Ricardo used his strong cases to explain principles clearly seems to correspond to Ricardo's own explanation of the nature of strong cases (quoted at the beginning of this section). What may be objectionable,

however, in Hollander's interpretation of strong cases is the degree to which he exploits this method in order to support his central interpretative thesis. First, Hollander imagines several categories to be used in ranking. Secondly, he places Ricardo's statements into one of these categories (oftentimes without any explicit justification), thereby labelling some aspects of Ricardo's theories as secondary in significance. For example, Hollander claims that the labor theory of value, the corn model, and the natural wage conception were strong cases. In contrast to Schumpeter, who claimed that in his theories of distribution Ricardo did not know how to make his strong cases operational, Hollander claims that after expounding the general principles, Ricardo released his previously frozen variables one by one. Thus, Ricardo established a growth theory with all variables adjusted to changes. In other words, in contrast to Schumpeter, Hollander claims that Ricardo knew how to nest his strong cases in a larger model of economic growth.

As discussed above in detail, Hollander, inspired by G.S.L. Shackle's methodology of assuming economic categories as taxonomic classificatory statements, employs subjectively conceived interpretative devices to classify Ricardo's statements according to their importance and role. In each context, different classificatory devices are introduced as ancillary hypotheses to support his interpretative themes. More specifically, in a given discussion of one aspect of Ricardo, Hollander classifies Ricardo's statements by using any combination of such concepts as "simplifying assumption," "strong cases," "weak cases," "sophisticated weak cases," "subsidiary causes," "secondary causes," "formal statements," "matters of principle," "first approximation," "second approximation," "process analysis," etc. For example, in his discussion of Ricardo's theories of distribution, the definition of natural wages as the wage which corresponds to the growth rate of capital and population is a "simplifying assumption." Starting from this hypothesis he proceeds with his analysis. In most cases, Hollander does not give a justification for such classifications. In the case of contradicting statements, he classifies them by hypostasizing Ricardo's "formal statements" and "real intentions." The

differentiation between the "formal statements" and "real intentions" is such that the "formal statements" are what one reads in Ricardo's published writings, but this may not reflect his "real intentions." The discovery of "real intentions" requires a "closer reading." It is not entirely clear whether by "close reading" Hollander means "careful reading" and "thinking carefully while reading" or checking those statements against Ricardo's letters and thus discovering the underlying thinking process. In any case, in the context of our present discussion, Hollander uses "strong cases" and "formal statements" in a similar sense, but makes it clear that these formal statements do not reflect his real intentions.

A point concerning Ricardo's "intentions" should be made clear here: Hollander's interpretation is not the type which exclusively and uniformly concentrates on the question of "what Ricardo really intended to say." Hollander oftentimes uses the intention arguments to support his hypotheses. There is, however, a hermeneutic tradition which claims that the "author's original intentions" are the only objective criteria in adjudicating between conflicting interpretations. Whether or not the intentionalism can be a useful, desirable or feasible standard shall be discussed below in detail. At this stage we shall point out some semantic problems associated with Hollander's usage of the term "intention." The intentionalists usually differentiate between two types of intentions: 1) active intentions and the 2) final intentions. The active intentions of an author are characterized by the actions of an author as he writes the text and as he understands himself to be performing in that text. The final intention brings a distinction between the meaning and the effect; the issue is what is intended to be understood and what effect upon the reader is intended. There is another two-way division of intentions; the "operative intentions" and the "inferred intentions,"¹¹ which is essentially similar to the one described above. One difficulty about the intentions is whether they should be defined chronologically or according to some "other criteria." The other criteria may be the aesthetic appeal, depth, or some other subjective criteria. Chronological criteria aim to establish the author's "final intentions" either by establishing a text which reflects the

author's most mature thoughts (young Ricardo vs mature Ricardo) or by considering the author's most complete works. In this sense, it is not clear what Hollander means by the word "intentions." It appears as if he is concerned more with the "active intentions" of Ricardo. As we saw above, Hollander claims that Ricardo's theories were designed purely for theoretical reasons. They were not designed to create an impact or an effect on readers or to lead to any policy measures. Hollander, however, does not follow a uniform rule in establishing Ricardo's intentions. In some cases he quotes from Ricardo's letters, thereby giving the impression that he is concerned with Ricardo's active intentions (an example would be the case of his interpretation of Ricardo's "sophisticated demand theory"). In other cases, however, he quotes from the Principles and thereby gives the impression that he is concerned with Ricardo's "final intentions" in terms of what is most complete.

Apart from this nonuniform usage, Hollander, more significantly, decides upon Ricardo's intentions by the utilization of interpretative devices he himself designs. An example may be given: Hollander claims that Ricardo's statement that "the profits of the farmer regulate the profits of all other trades" does not reflect his real intentions, and classifies this as a "strong case."¹² He then replaces "profits of the farmer" by a modern notion "the state of agricultural productivity" and ascribes a "sophisticated strong proposition" to Ricardo: "the state of agricultural productivity on the margin of cultivation is the unique determinant of the general profit rate."¹³ Finally, he finds a "weak proposition" that the "state of agricultural productivity exerts an influence on the general profit rate although not to the exclusion of other forces."¹⁴ Hollander concludes that this is the position adapted in the Principles, thus, it reflects his "real intentions." In all of these categories: "strong," "sophisticated strong," and "weak" propositions, one notices first that Hollander replaces the "farmer's profit by the "state of agricultural productivity" and thus assumes marginal productivity determination of the rate of profit rather than proving it. Second, Hollander replaces the term "regulates" with the term "unique determinant." These last two terms are by no means equivalent. The former is an imprecise notion peculiar to

Ricardo and the latter is a precise modern notion. Furthermore, uniqueness implies the existence of equilibrium in modern terminology and the existence of equilibrium precludes discontinuities or "kinks" in the excess demand functions. Thus, these categories are designed by Hollander in accordance with his interpretative themes (depending on the case) and made operational by changing and/or interpreting the key concepts in Ricardo's statements. Furthermore, Hollander does not follow a specific rule in revealing intentions. For this reason, it would not be correct to consider Hollander's interpretations as designed to reveal Ricardo's real intentions. Hollander's emphasis is rather on what Ricardo's system really amounts to, notwithstanding Ricardo's "intentions." Ricardo's intentions are discovered through the classification of Ricardo's statements according to their subjectively perceived importance or operational role, using interpretative devices such as "weak," "sophisticated weak" cases, etc.

Hollander makes use of the strong cases idea in yet another way. He assumes that Ricardo's strong cases are the simplest levels of his abstractions. They are only the "first approximation" to the larger model. As the level of abstraction increases, Ricardo relaxes his simplifying devices one by one. Thus, one can obtain the "second" and the "third" approximations in this way. In other words, in his larger model, Ricardo eliminates his strong cases, and allows previously frozen variables to operate freely. This conflicts with Schumpeter's interpretation that Ricardo never eliminated his strong cases. It also contrasts with Malthus' interpretation that Ricardo did not appreciate multicausality. An example of Ricardo's working with strong cases in a larger model of "allocation of scarce resources among competing uses" is as follows: Hollander asserts that in his early writings Ricardo used the "corn argument" as a pedagogical device, a strong case, because at the time he was in possession of a labor theory of value. He also indicates that Ricardo's statement that agricultural profit rate determines other profits was also a strong case. Furthermore, Hollander assumes (similar to Marshall's interpretation) that Ricardo used the argument of zero demand elasticity as a simplifying device. Finally, he claims that "his theory in terms

of labor input" (i.e., the labor theory of value) was also a simplifying device.¹⁵ It was "a standard measuring procedure"¹⁶ used in measuring the equilibrium value of key variables following a disturbance to the wage rate. His conception of natural wages being fixed was also a simplifying device to facilitate exposition. Finally, rather than dealing with the invariable measure which (according to Hollander) was an intellectual exercise or a puzzle with no bearing on his system, Ricardo assumed uniformity of factor ratios between the sectors of the economy.¹⁷ Hollander maintains that these "strong cases," once they fulfill their special tasks, were later relaxed. For example, as shown earlier in this study, Ricardo's natural wage argument was designed to refute Smith's doctrine of competition of capitals. Ricardo knew that Smith's argument implied the possibility of an inadequate demand as a causal influence upon the profit rate. Thus Ricardo took long-run real wages as a constant. Similarly, his theory of value was designed to be an empirically valuable measuring procedure because labor represented the largest part of the cost. Once Ricardo got his points across, he released these restrictive strong cases and devised a growth model in which wages and profit rates are endogenously (and simultaneously) determined, together with the rates of growth of population and of capital. He then concluded that it was a general equilibrium model of the Walrasian type wherein distribution is an aspect of pricing.¹⁸

Finally, Mitchell also acknowledges that Ricardo had a particular method of working with strong cases. He claims that Ricardo's use of strong cases can best be seen in the context of his distribution model as put forth in his Essay. As described in detail above, Mitchell believes that Ricardo held certain crucial factors constant and once he had explained the general principles he released them one by one. But in Mitchell's view, when Ricardo released his variables, his original results remained unaltered. For Mitchell, the main reason Ricardo's original construction remained essentially the same is that when Ricardo released them he knew there might be a few changes in the details, but believed that his major, global conclusions would be untouched. In Mitchell's view, these major

conclusions were 1) the declining rate of profit; 2) conflict between the landlords and the capitalists and 3) the inverse wage profit relationship. Thus, when Ricardo introduced money into the system "profits still fell" because of rising money wages (inverse relationship) and, as a result of rising agricultural prices, landlords gained doubly at the expense of other classes. Ricardo dropped the simplification of constancy of the methods of cultivation. But again, his general result (conflict between the capitalist and the landlords) remained the same: improved techniques lead to increase in profits and decrease in rents. Finally, Mitchell claims that Ricardo also dropped the constant real wage assumption but "did not quite know how to bring them into his general scheme of theory."¹⁹ Mitchell's results, therefore, depend upon what he perceives as one of the central theorems of Ricardo: class conflict which remains the same with or without the strong cases.

V. THE ROLE OF POLITICAL-IDEOLOGICAL-NORMATIVE ELEMENTS IN INFLUENCING HOW INTERPRETERS APPROACH RICARDO'S ANALYSIS

As mentioned briefly above, the subject matter of Ricardo's economics is open to political and ideological implications. Accordingly, political and ideological elements inevitably color the perspectives of the interpreters as they approach Ricardo's analysis.

Ricardo's theories encompass both the normative and positive elements. The analytical content of Ricardo's system has been greatly influenced in its initial formation and in its development by the political circumstances of his time. High inflation in England following the Napoleonic wars sparked an interest in Ricardo for political economics. Corn struggles represent another major political circumstance that shaped the formation of his theories. As it is known, Ricardo took a definite side with the "bullionists" in the famous Bullion Controversy and was very much aware of the political aspects of the greatly-protracted corn struggles, as well as many other current political issues and problems of the time. The debates over the corn question lingered on for a long time and grew into a political struggle between the landlords and the merchant capitalists. Ricardo, being the great capitalist that he was, supported the repeal of the corn laws. This would bring the price of domestic corn down and all classes of society (except the landlords) would benefit. When the corn struggles led to the dissolution of the Anti-Combination Act and gave the control of the organization of labor unions to the landlords, workers faced the prospect of earning only minimum subsistence wages. Thus, all three classes were involved in and influenced by the corn struggles. Ricardo's theory of profit, as propounded in his famous Essay, is the direct outcome of this struggle. Therefore, the analytics of Ricardo's theory of profit can be said to contain interrelated normative and positive elements. In other words, the positive elements of Ricardo's theory of profit are

supported by a normative context. Ricardo's theory of value represents another example of balance between the normative and positive elements. In Ricardo, as in Smith, the theory of value, by its very nature, includes interrelated questions or dimensions of the creation of value and its measurement. The creation aspect concern the sources of value and the determination of value, and the measurement is the expression of value in terms of quantifiable units. In contrast to the modern price theory (which by concentrating on the abstract conception of use value in terms of utility excludes the dimension of source realized in the human factor and natural resources), Ricardian theory of value encompasses both the Absolute and Relative values. Therefore, it can not be abstracted from the process of creation of value. Again, we see the positive aspects of the theory being supported by the normative considerations. The "creation," "sources" and "determinants" of value are of necessity normative and carry with them political and ideological implications.

Thus, the balance between the normative and the positive elements in Ricardo's theories (of distribution, value, and the consequent theory of accumulation and applications such as taxes, the theory of comparative advantage, etc.) is reflected in the interpretations of Ricardo. Interpretation is a process of "filtration" and the end product almost always reflects the perceptions of the interpreter and his/her normative make-up. This normative make-up itself reflects the social setting and the existing power structures of his/her socio-political system. We can call this the interpreters' "social location."²⁰ The ideology of the interpreter legitimates a socio-political system by providing a framework (a subset of integrated ideas and beliefs), interpretative questions, and forming interpretative hypotheses for the study of Ricardo's system. Thus, the differences in interpretations, in this context, are due to differences in the normative-political-ideological make-up of the interpreters, i.e., the interpreters' "social location." These differences manifest themselves in the a) differences of opinion as to the precise definition of what constitutes a normative and what constitutes a positive theory; b) understanding what parts of Ricardo's system can be said to be his positive economics and what parts are normative; c) differences of opinion

regarding the very possibility or impossibility of separating the positive analysis from the normative context; d) differences of opinion as to the usefulness or the success of such separation and e) differences of perspective as to the significance of the underlying normative elements in influencing the positive aspects of his theories.

Interpretation is a transformation process in which the ingredients of Ricardo's system (as perceived by the interpreter) are reshuffled and laid out in a selective fashion to reflect the understanding (and the interests) of the interpreter. This by the very nature of the process of understanding, is ideologically conditioned. There may be a spectrum of definitions for ideology which vary from a narrow definition of "false consciousness" to a wider definition which includes whole systems of beliefs and ideas which are expressed in various forms (writing, drawing, speech) in an organized, coordinated and coherent way. It is the latter definition in a wider sense that is adapted in this work.^{20b} Thus, ideology "enters on the very ground floor into the pre-analytical cognitive act."²¹ In the process of transforming the original text into the critical text (interpreted), certain aspects of Ricardo's total body of writings are brought into focus and others are pushed aside or into the background. Thus, the selection of topics for discussion is ideologically conditioned. The choice of interpretative techniques, the definition of Ricardo's central problem(s), the choice and description of variables, the determination of operational significance of variables (as to what is given, what is determined), the mode of interpretative reasoning, evaluation of assumptions, conclusions, interpretation of the policy implications and the extensions, etc., are all ideologically conditioned. In short, exegetical input is filtrated at every level of the interpretative process. The identification, choice and election being inescapably normative, interpreters try to build a positive analysis on this normative foundation. Several examples of the selective nature of topics of discussion, variables and the reasoning, etc. can be given. Marx, for example, chooses to concentrate on Ricardo's theories of value and distribution and claims that the whole of Ricardo's work is contained in the first two chapters of the Principles; later chapters are "boring and difficult to

concentrate on" and are devoid of the theoretical satisfaction given by these first two chapters. He praises Ricardo for expounding the correct principles of surplus value and for searching for the origins of surplus value in the process of production; thus starting the investigation of economic categories from the sphere of production. Marshall, on the other hand, discusses Ricardo's theory of value not in terms of the creation and the measurement of surplus value but in terms of demand and supply determination of prices. He points out the allocative role of rent theory and outlines the manner in which allocative mechanisms operate following a disturbance (such as taxes or technical improvements) introduced to the system from outside. He brings the demand side into Ricardo's scheme, pushing labor theory of value and all the related conceptions such as the invariable measure, etc., into the background. Hollander explains in detail his belief that Ricardo had a macro theory of growth based on demand and supply determination of prices of production and commodities. He chooses to consider Ricardo's theory of value as a strong case and devotes only a few pages to the subject of invariable measure of value in his 759-page-long book on Ricardo's economics. Sraffa nearly confines his interpretation to Ricardo's theory of value and related concepts. He believes that marginalism, variability of returns, subjective demand, determination of market prices, etc., were elements alien to Ricardo. These interpreters also vary in their assumptions regarding the operability of the variables they perceive as being pertinent to the economics of Ricardo. For example, according to Sraffa, wages are assumed to be given in Ricardo's system. They are determined outside the model, whereas according to Hollander, wages were operational, an endogenous variable determined in the system by the demand and supply for labor. As discussed earlier, Malthus claims Ricardo ignored demand because he did not consider the tastes and desires as factors. Marshall and Hollander assert that Ricardo has a demand theory and did not ignore tastes and desires. Mitchell claims that Ricardo did not ignore tastes but assumed them to be a function of an institutional variable: habits and customs.

Having said that the interpreters' vision is necessarily preconditioned by their political and ideological experiences and the mode of analysis they follow is directed (in varying degrees) by the same experiences, there remains another aspect of ideology which should be considered. Interpreters vary in their recognition of and the role they ascribe to ideology as a relevant variable in the process of interpretation. Some interpreters are more comfortable than others with the question of ideology as both an explained and explaining factor, and others choose either to understate or ignore the influence of ideology in both the formation of theories and in the process of interpretation. In the latter case, ideology inters into their interpretation in the form of denial. It can even be said that only an ideological world outlook could have imagined economic theories without ideology. Still others attempt to identify and isolate the ideologically laden elements from the positive elements by following certain "scientific procedures." An extreme form of ideology consciousness may result in complete politicization of analytical systems. Ignoring or deliberately understating the influence of ideological factors leads to obscurities as to the nature of economic processes being influenced and acted upon by mankind. Attempts to isolate ideological elements by means of certain technical methods run the risk of reducing social theories to purely technical systems, thereby depoliticizing the context in which theories are formed. Thus, the outcome of the process of interpretation to some extent depends upon how a particular interpreter deals with the question of ideology.

Marx, Malthus and Mitchell show an awareness of ideology as a variable both in the initial formation and the subsequent development of their theories. Marx explicitly states that the importance of Ricardo lies in his discovery of economic basis for class struggles. He believes Ricardo was the first economist to consider the social relations of production and income distribution without eliminating all of the relevant social and institutional variables. Thus, Marx sets out the normative foundations of Ricardo's theories very clearly and investigates analytical categories in their relation to class interests.

Malthus is also sensitive to the influence of political problems upon the formation of Ricardo's theories and his advocacy of policies. He was fully aware of political implications and possible ideological overtones to Ricardo's arguments; he sometimes understood the political message in Ricardo even more realistically than Ricardo did himself. A case in point is Ricardo's theory of rent and theory of value. Ricardo's theory of rent as propounded in his Essay is considered to be essentially similar to Malthus' early theory of rent. Yet in the synthesis of theories of rent and population (which Ricardo indicated that he adapted from Malthus), Ricardo reached the conclusion that the interests of landlords clash with the interests of any other class in the society. To Malthus this was a very disturbing conclusion. Malthus, in his Principles of Political Economy, devoted more than a hundred pages solely in an effort to prove that the interests of every other class in society were "connected" with the interests of the landlords and that furthermore, the interests of the landlords were connected with the state's interests and the general well-being of the nation. He argued that everything which enriches a country increases rent, and high rents enable landlords to create and maintain cultural and moral values. Malthus attributed so much importance to the political implications of Ricardo's statements that he not only brought the political elements of Ricardo's theories into focus, but also (at the risk of contradicting his original theory of rent in his own Essay), he supplied a contrived defense of landlords, which could be labelled as what Marx called an apologia.

It was also hard for Malthus to accept that labor was assumed to be the creator of value and that the value of commodities should be measured in terms of the quantity of labor used in their production. Ricardo appeared at times to be so engrossed with the logical and technical aspects of the value problem, Malthus never lost sight of the implicit political tone. Nevertheless, Malthus' opposition to Ricardo's measure of value rested on logical grounds. Finally, it can be argued that Malthus' opposition to Ricardo's early theory of profit was also colored with political considerations, because the question whether protection should be given to British agriculture seemed to affect different classes

differently. Ricardo's corn model clearly demonstrated that if the profit rates are determined in the agricultural sector in the way Ricardo described (in terms of the ratio of physical output to input), free importation of cheaper corn from continental Europe would increase the rate of profits and lower the rents. Malthus dissented and argued that the higher profits in other sectors may be due to increased demand (possibly due to changes in tastes), for the manufactured goods without the necessity of changing the conditions of agricultural production. In other words, high rents (due to unchanged conditions of agricultural productions) were quite compatible with high profits.

Mitchell, too, considers ideology as an important factor both in understanding the context and the logical structures of theories. Mitchell investigates historical circumstances in an effort to understand the socio-political context of Ricardo's theories (as he believes the context inevitably influences theories) and asks explicit questions about whose interests Ricardo's theories are designed to serve. As discussed in detail above, Mitchell's interpretation seeks to establish "what doctrines have been propounded and how did men come to believe them." To achieve this, he tries to reconstruct the prevailing ideas, beliefs and conceptions in relation to capitalism and the socio-political systems of his time. Thus, in a wider sense of the term, Mitchell seeks to establish the predominant ideologies of Ricardo's times (such as utilitarianism of Bentham, self-interest, rationality, social harmony, etc.) He tries to synthesize this with Ricardo's own beliefs, habits and idiosyncrasies as a pragmatic business man who does not see the world "thru distorting windows of an academic study" and who does not hesitate to allow for lapses from perfect rationality. The outcome of this synthesis is a depiction of Ricardo as a man who, on the one hand wanted to preserve the basic principles of capitalism, the existing property relations and the power structures, free trade (which increases the "sum of enjoyments") and on the other hand who saw the society in terms of class relations, economic struggles, power struggles. This is an angle which focuses on conflict and invites change. The contradictory picture that emerges from Mitchell's interpretation is in some ways similar to

that of Smith. In the writings of Smith, two perspectives seem to coexist side by side: one focuses on the free market acting like an invisible hand, harmonizing interests (Marx calls it the "unseen hand") and the other points to class conflict, power and coercion, which is perhaps why Smith is seen as the starting point for two distinct traditions: the dual development hypothesis. In Ricardo the labor theory of value and the theory of distribution point to conflict and conflict invites change. Ricardo, on the other hand, had an ahistorical understanding of capitalism; he considered the stage of capitalism he was living in to be unchanging. He defended the status quo and the existing property rights, and argued for free trade harmonizing interests, etc. It is perhaps this contradiction in Ricardo that put him at the center stage of controversy.

Mitchell also employs ideology as an interpretative category in a narrow sense as a general view of the world held by interest groups and classes. In this sense, he tries to work back from the policy prescriptions (as he perceives them) of Ricardo's theories to support general concepts. In other words, starting from the observation that Ricardo's theories are designed to serve the interests of the capitalist class, he examines certain characteristics of the components of Ricardo's systems. In this connection, Mitchell tries to handle another question: why did the Ricardian theories attain its dominant position while Ricardo was alive and "reigned supreme" for at least a generation after he died? This usage of ideology, while bringing certain explanations about Ricardo's theories of distribution, does not in itself constitute an unobjectionable interpretative tool that would explain all finer aspects of Ricardo's system. Mitchell, for example, does not elaborate on Ricardo's theory of value very much. He mentions Ricardo's three distinct conceptions of value but he does not explain how these theories of value relate to the rest of his system. In other words, how is it possible that these three "distinct" theories coexist side by side so peacefully without throwing his theory of distribution into complete chaos? Mitchell does not elaborate on the invariable measure of value. We do not know why he sought an invariable measure of value for so long. While Mitchell gives a great deal of weight to

ideology, he gives no analysis of the ideological implications of Ricardo's theories of value. Mitchell mentions that Ricardo's model in the Essay was designed in terms of wheat, and all distributive shares "were reduced to quarters of wheat." He also mentions that after corresponding intensely with Malthus, Ricardo was constantly bothered by an inability to tie his doctrines of distribution to some sort of valuation and that in writing his Principles he had to clarify his ideas on the underlying concept of value. However, Mitchell never explains how this transmission from the wheat model to value took place, or if there was such a transmission. If there was, as he seems to believe, how was this achieved analytically?

With respect to the longevity of Ricardian theories, Mitchell suggests that the reason was that the capitalist class had the deepest and liveliest interest in economic theory and sensed that Ricardian theories fit their interests. He claims that landlords were not interested in economic theory of any sort because they were living on tradition; the laboring class did not read much, and the few who read books did not read Ricardo but rather the "labor writers." Thus, if they wanted economic theory they did not have to go to Ricardo for it. While the influence of Ricardo during his lifetime is generally recognized, it is not at all clear that Ricardo's theories "reigned supreme" for a generation or more.²² One week after Ricardo died, Mill wrote a letter to McCulloch (dated 19 September 1823) and stated his purpose in writing:

My chief purpose in writing is the relief I shall find in communicating with the man who of all the men in the world estimated my lamented friend most exactly as I did; and also, in case you should not have received the particulars of his illness from any other quarter to give you a few details which will be interesting to you.

After giving the particulars of Ricardo's illness, Mill closed his letter as follows: "I have only room to add, that as you and I are his two and only two genuine disciples, his memory must be a bond of connection between us. In your friendship I look for a compensation for the loss of his."²³ We also know that there was a united effort to

discredit Ricardo's theories of value and distribution shortly after he died, and it cannot be said that these efforts were entirely unsuccessful.

Marshall, in contrast to Mitchell, perhaps because of the fears of giving an "unscientific" character to his interpretations and his theories, deliberately underplayed the role of ideology and politics in Ricardo's theories. Words such as "ideology," "politics," "normative," "class struggles," "power," "coercion," "conflict of interest," etc. are absent from his index. If he had to, Marshall preferred to use less risky phrases such as "class jealousies," "class adhesiveness," etc. Marshall did not altogether by-pass the ideological political implications of the theory of profit and attempted to repudiate inferences such as interest being an unearned income in an evasive and reconciliatory tone. Marshall wrote that some "argued that the payment of interest in modern times oppresses the working classes indirectly ... and that it deprives them of their fair share of the benefits resulting from the growth of knowledge."²⁴ He argued that Marx and Rodbertus were wrong because the whole of the surplus is not the produce of labor. Interest, the reward of waiting, had to be included and Marx and Rodbertus were also incorrect in claiming the authority of Ricardo for their theories, since in Ricardo's opinion, interest is a reward for waiting. He claimed that Marx implicitly assumed that capital is a "free" good, rendered without sacrifice. Marshall concluded in a "professional" tone that such analyses were "unscientific":

The strength of Rodbertus' and Marx's sympathies with suffering must always claim our respect: but what they regarded as the scientific foundation of their practical proposals appears to be little more than a series of arguments in a circle to the effect that there is not economic justification for interest, while that result has been all along latent in their premisses; though, in the case of Marx, it was shrouded by mysterious Hegelian phrases, with which he "coquetted," as he tells us in his Preface.²⁵

Schumpeter neither denies nor underplays the political and ideological content and implications of Ricardo's theories and the other classical economists; but he tries to separate and isolate the ideological elements from the positive and analytical aspects by employing

an exegetical standard called "Economic Analysis." It is an exegetical standard because Schumpeter believes that by correct application of "objective" standards and rules, an interpreter can transcend environmental, historical and circumstantial factors and bring out what is really valuable in a theorist. In the final analysis, this is what differentiates a "scientific" theory from an "unscientific" one. We shall discuss the different styles of interpretations as a separate category in an effort to investigate the problem of multiple interpretations, but in the case of Schumpeter, even though his exegetical style is based upon his standard of judgment, because it is dominated by his efforts to eliminate ideology from economics, it seems appropriate here to go through the standard he proposes and see how his use of such a standard influenced his interpretation.

For Schumpeter, objective standards and rules against which any economic theory can be tested manifest themselves under the concept of "Economic Analysis." The existence of formal techniques and "command of facts unearthed by these techniques which are beyond the range of mental habits and the factual knowledge of everyday life,"²⁶ represents conscious efforts with which any kind of knowledge can be improved to the level of science. Thus, the existence of formal techniques of analysis, a "box of tools" which can be used to find facts and interpret them, is in essence what differentiates scientific knowledge from other kinds of knowledge. In Schumpeter's view, it is not so much what a theorist argues or the historical and environmental conditions in which he sets forth his theories which makes him great, but rather it is how he argues and the tools of analysis he uses. He believes in the existence of objective and supra-historical standards in economics with which it is possible to separate the universal in a thinker from what is simply confined to his epoch or to his country. It also differentiates the objective from the ideological. Schumpeter's tools of analysis consist of a set of formal mathematical techniques with which the logical consistency of economic models can be tested unambiguously. He claims that these tools can be used to separate the analytical framework of a theory from its ideological, normative and historically conditioned

premises. With the use of analytical techniques, one can make statements of the type that "there has been technological progress in the extraction of teeth between the times of John Stuart Mill and our own."²⁷

One stumbling block in Schumpeter's search for the right "box of tools" for economic analysis is the realization that ideology inevitably enters into the process of understanding. This is the beginning, and according to some, perhaps the ultimate purpose of interpretation. He admits that the starting point for every analytical effort is to "visualize a distinct set of coherent phenomena as worth-while objects," thus, "every analytical effort is of necessity preceded by a preanalytic cognitive act that supplies the raw material for the analytical effort. This preanalytic cognitive act will be called Vision."²⁸ Vision is by definition subjective and ideologically conditioned. This is a daring admission, given the overall thesis of Schumpeter (elimination of ideology), but despite this explicit recognition of ideological nature of "vision,"²⁹ Schumpeter is still optimistic about identifying and eliminating ideological elements through the correct application of the rules of "scientific procedure." "The rules of procedure that we apply in our analytical work are almost as much exempt from ideological influence as vision is subject to it,"³⁰ writes Schumpeter. Later, Schumpeter seems to find this statement a bit extreme and qualifies it considerably by no longer claiming that one can eliminate ideology from economics completely. By the use of scientific procedure one can at least narrow down the "sphere of ideologically vitiated propositions" and perhaps locate and isolate the spots in which ideology may be present.

Schumpeter suggested the use of mathematical techniques in his earlier writings as well. He wanted to discard causality as a conception relevant to economic theory and replace it with the mathematically unambiguous concept of function.³¹ He advocated mutual determination and the interrelationship of variables. Systems of simultaneous equations replace causality and economic situations can be described in terms of interactive variables. Mutual determination eliminates the question of the direction of determination.

In short, the techniques of simultaneous equations, matrix algebra, differential equations, difference equations, and differential calculus provide the means for avoiding intrusions of ideology into the analysis.

In order to achieve this same end, Schumpeter emphasized "methodological individualism," and claimed that meaningful social science knowledge can be derived from a study of the actions of individuals. By isolating individuals from classes and all other social categories, Schumpeter hoped to avoid political aspects of economic actions. He contrasts "methodological individualism" with "methodological collectivism" which advocates the study of group phenomena. Methodological individualism, for Schumpeter, serves to jettison political programs from "pure economics" and explains the economic behavior of individuals in terms of common behavioral patterns. But the problem with such categories is that they are heavily ideological. Methodological individualism assumes that the behavior of individuals can be studied in isolation of the group which they belong, and this behavior is assumed to be unchanging and thus is assumed to constitute a reliable criteria upon which economic theories can be built. Given the fact that except in Robinson Crusoe economics, individuals always lived collectively (even R. Crusoe was not alone), one can not defend methodological individualism as a feasible criteria. This attainability problem aside, the methodological individualism seeks to find something common in the "nature" and behavior of human beings by rejecting the influence of social groups on human beings. From this rejection, it seems to follow that human beings' conceptions, values, etc., change but their "nature" remains the same so that a system could be built. Finally, such efforts ultimately carry Schumpeter to the familiar preconception that "selfishness" and "rationality" are correct and ever enduring descriptions of human behavior. It must again be noted that the very assumptions of self-interest and rationality are the foundations of the laissez-faire ideology which Schumpeter wanted to eliminate.

M. Dobb criticized Schumpeter's view of increased formalism as a way to eliminate the intrusion of ideology. He claimed that such arguments are irrelevant to economic reality

proper. Even with extremely formal models one has to begin by "laying emphasis upon certain factors and relationships and exclude others or cast them into shadows." In systems of simultaneous equations, relationships do not "amount to an explanation in the sense of depicting the situation as an economic process that works in a certain way and is capable of being acted upon and influenced."³²

Given the above described framework, it is not coincidence that Schumpeter considers Leon Walras the greatest economist of all time who wrote the "Magna Charta of exact economics," and finds the objectivity he seeks in the Walrasian general equilibrium framework.³³ He interprets Ricardo by upholding the technical superiority of the Walrasian apparatus as the ultimate standard of judgment. Put differently, the Walrasian general equilibrium system was Schumpeter's "Ideal Type"³⁴ and he interpreted Ricardo from the framework of his Ideal Type. Given such a standard as an ultimate measuring device, Schumpeter finds Ricardo consistent but simplistic. Since Schumpeter seeks to eliminate the intrusion of ideology and other historical circumstantial factors from his investigation of the contributions of economic theorists in his overall assessment (which is a part of his interpretation), he removes the normative, historically conditioned bases of Ricardo's theories and finds his overall approach the "primitive patchwork" type. He recognizes and discusses at length certain normative, historical factors present in Ricardo's theories, but the idea of the elimination of these factors leads him to adapt a standard which greatly influences his approach to Ricardo's theories. In the case of Schumpeter's interpretation, his preoccupation with the role of ideology leads him to turn his interpretative style into a methodology (of positivism) in the investigation of economic theories. Perhaps this alone shows the significance of ideology in the formation of theories, advocacy of policies and fashionableness of certain theories and theorists. Perhaps it had to be one of the factors resulting in the multiplicity of interpretations.

Warren J. Samuels wrote that "it is easier to perceive ideology in the analysis of others than in one's own."³⁵ This seems to be a fitting observation for S. Hollander who

wrote: "controversy and partisan ideology becloud scholarly interpretations of Ricardo's and 'Ricardian' economics."³⁶ It is one of the characteristics of the interpretation by Hollander that (in accordance with his interpretative hypotheses) he investigates and challenges the interpretations of others. He claims that Ricardo's scholarship is infused with the "partisan ideology," especially of Marx and of Marxist economists. He claims that approaches such as the dual development hypotheses are purely ideologically conditioned. According to Hollander, the "dissention" literature which grew around the economics of Ricardo in 1830s and 1840s is the best example of ideologic interpretation. Hollander asserts that Marx's praise of Ricardo as the "last great representative of political economy" is purely ideological; Ricardian theory of value, rid of any allowances for the independent productivity of capital, seems to be the source of ideologic inversions of his theories. Hollander rejects the view (of Schumpeter for example) that Ricardian influences faded away because of the ideologically inviting nature of his subject matter to socialism, and claims to the contrary that Ricardo's influence endured because his analyses "shared a common theoretical heritage shared by most economic writers regardless of ideology: allocation via the price mechanism."³⁷ Thus, he in effect claims that ideological concerns subverted the record and portrayed Ricardo's influence as fading as if the mainstream neo-classicism did not identify with the ideologic message in Ricardo, and he wants to "correct" the record, which is in itself not an ideological endeavor!

There is no reason whatsoever to claim that Hollander's own interpretations are free of his ideologic position. Ideology enters to his interpretation before he starts his investigations and directs his themes throughout his work. Hollander, while labelling a whole set of interpretations as being ideologically conditioned, does not allow for the same possibility in his own interpretations. Yet others find his interpretations extremely ideological and doctrinal:

Consideration of economics as a scientific enterprise is not Hollander's concern... [His interpretations] reflect his own interests, which are strongly doctrinal and only modestly directed to actual economic phenomena.³⁸

It is perhaps this awareness of the influence of ideology in the interpretation of others that makes the examination of other interpretations, and challenging them in a most polemical tone a part of Hollander's interpretative enterprise. A large part of his book is devoted to refutation of other interpretations. Thus, apart from the various modes of entry and operation of ideology discussed at the beginning of this section, Hollander's interpretation is heavily influenced and directed by the ideological concerns. Elements he detects in the interpretation of others are an integral part of his own interpretations. Whether or not he is motivated and streamlined by ideological concerns, and regardless of the degree to which the interpretations are infused with ideology (as seen in the case of Hollander's interpretation), interpreters are faced with confronting and dealing with past interpretations a part of their own interpretative projects. The differences in interpretation in this connection are seen as a result of differences in perspectives. Different perspectives, including those of varying schools, are brought to bear on Ricardo's analysis. We now turn to these issues.

VI. THE DIFFERENCES OF PERSPECTIVE (OTHER THAN IDEOLOGICAL) INCLUDING THOSE OF VARYING SCHOOLS, BROUGHT TO BEAR ON RICARDO'S ANALYSIS

Whether or not initiated and motivated by ideological elements, different theorists and interpreters brought forth different perspectives in which they expounded, expanded or propounded certain ideas and principles which they themselves or others claimed based on or hitherto remained dormant in the writings of Ricardo. Stated differently, theorists subsequent to Ricardo put forth theories which are claimed to have originated from Ricardo or existed in his writings in some form. The same problems investigated differently or different problems investigated similarly have brought many theoretical issues that later came to be associated with Ricardo. Different perspectives have brought some aspects of Ricardo's economics into focus and pushed others into the background. Expanding on the aspect brought into focus, interpreters gave rise to various inferences as to what was central and what was incidental to Ricardo. For example, Marx dealt extensively with the labor-embodied theory of value, and based on the idea of surplus value, built his theory of exploitation which has brought Ricardo's theory of value into sharp focus. Marshall concentrated on Ricardo's theory of rent, and the allocative role of rent theory and found much more than the mere seeds of marginal productivity theory of distribution in Ricardo. Using a technique and a framework he found in Ricardo's work, Sraffa has built a system which found to be debilitating to the aggregate versions of marginal productivity theory of distribution. Each new generation of interpreters is exceedingly burdened with the theoretical developments subsequent to Ricardo and felt the need for reassessing the method, the logic and the content of Ricardo's analyses. Thus, the first fundamental consequence of differences of perspective is that since different perspectives emphasize certain aspects of Ricardo's contributions more than others, there appears to be differences of opinion as to what is central and what is incidental to Ricardo. This problem is exacerbated by the ideological concerns over the selection of certain topics as the positive

contributions of Ricardo. The same problem exists for other great economists as well. For example, Warren S. Gramm complains that "of the 1,438 pages written by Adam Smith in his two major published works [Wealth of Nations and Theory of Moral Sentiments], only a few lines from several pages of the Wealth of Nations are regularly mentioned on orthodox economic texts. These are the statements on division of labor, paradox of value, the invisible hand, and the functions of government."³⁹ The problem is perhaps more serious for Ricardo since in orthodox textbooks only the theory of comparative advantage is mentioned in connection with Ricardo. Second, the differences in perspectives bring with them different conceptualizing frameworks and different sets of concepts, terminologies, assumptions, imperatives, prerogatives, policy prescriptions, etc. Then the issue (so far as the act of interpreting is concerned) becomes one of deciding upon the congruity or incongruity of such systems as a whole with the letter and perceived spirit of what Ricardo said and wrote. Because of far reaching and often opposite consequences of later theoretical contributions, interpreters feel obligated to deal with these contributions in their interpretations of Ricardo. The problem may appear in the form of reinterpreting Ricardo in the light of later theoretical developments and controversies. Third, in connection with the second point above, there appears to be wide disagreement as to the legitimacy of such theoretical "extensions" as far as interpretation per se is concerned. In other words, there are always disagreements over whether or not a particular "extension" is an application, projection, subversion, expansion, appropriation hypostatization, etc. Furthermore, there are no agreements as to which of these acts is supposed to be "moments of interpretation" and which one is supposed to be alien for the act of interpreting. Again, how one decides whether a theory B is an application of theory A or a subversion of theory A, or simply an illustration of theory A, etc., becomes an extremely difficult issue to resolve. The fourth relevant question is this: how can one decide whether a given theorist or interpreter has projected or read his own views and analyses onto Ricardo? Assuming this question can be somehow answered, the next question is: how can one know if that

particular operation (projection) is in the spirit of Ricardo or is simply a subversion? The fifth complication concerns the very possibility or impossibility of separating interpretation, understanding, and application from each other. The question is whether or not interpretations necessarily include application, and whether or not every understanding is an interpretation. Should application be taken to mean "putting to use," "showing the relevance to today" or is it simply to connect the past to the present in the form of an explanation of the past in today's language (in a larger sense).

These are hermeneutic questions relevant to interpretations of Ricardo, and to social sciences dealing with interpretative materials. We shall have more to say about different hermeneutic views regarding the nature of interpretation in general. For our immediate problem, it is possible to group theoretical "extensions" of different perspectives into two groups: 1) the contributions of Marx, Marshall and Sraffa, and 2) perspectives of Schumpeter, Knight, Stigler, Mitchell and Hollander. Of all three economists in the first group, either they themselves or others claimed to have used Ricardo's ideas and constructed systems which are recognized to be paradigms or show characteristics of a paradigm. In each of these cases economists found vital intersections between their extensions and the economics of Ricardo. The economists in the second group do not have separate systems which are considered to be paradigms or possess paradigmatic characteristics, yet they may have interpreted Ricardo from a general framework of a given cognitive system or a paradigm, and in doing so associated the economics of Ricardo with any given recognized paradigms. Since Marx, Marshall and Sraffa are considered to have provided the frameworks or assumed to have significantly contributed to the frameworks of Marxism, Neoclassicism and NeoRicardianism, we shall concentrate mainly on their perspectives.

As discussed in detail in Chapter One of this study, Marx praised Ricardo for starting his economic analyses from a "true" foundation: the labor theory of value. He pointed out that Ricardo, in contrast to other classical economists, did not assume relevant

categories of capitalist economies to be natural and eternal by taking them for granted; on the contrary, he investigated the internal coherence of these categories with the foundation he laid down. Marx, thus, sees Ricardo's economics as being firmly founded in the sphere of production where the value of commodities is created. In Marx's view, the production perspective with its emphasis on the social relations of production, income distribution and social and institutional variables, is the only way to discover the laws of motion of capitalism. Because of this belief, Marx concentrated his interpretation of Ricardo's economics on what he believed to be the most outstanding aspect of his system, the theory of value. Thus, by choosing it as a framework and developing it further, Marx brought the labor theory of value aspect of Ricardo's economics into the forefront and by not dealing with the other aspects such as taxation, international trade etc., he pushed them into the background.

We do not intend to provide an overall assessment of the relation of Marx to Ricardo, nor do we intend to study intricate details of Marx's own economics here. Yet it should be pointed out that both Ricardo and Marx were interested in the same problem: the distribution of total output between wages, rent and profit, each taken as aggregates. Marx believed that in order to be able to solve the distribution of total output between classes in a logically coherent (not circular) way one should start from the investigation of the determination of value of commodities by the amount of labor used in their production. Once the true origins and the causes of surplus value are explored in detail, Marx believed, only then can one discover the laws which regulate profit. In other words, profits are realized in the sphere of exchange by the sale of surplus value created in the sphere of production. Marx worked out a logically coherent theory of profit, the theory of exploitation. Because of the similarities between Ricardo's and Marx's conceptions of value, and the problem they tackled, the analytical and political consequences of Marx's own extensions and theories have become relevant considerations for later interpreters of Ricardo.

As mentioned above, since the surplus value is created in the sphere of production, they have to be transformed into actual prices. In other words, Marx believed that after using the fundamental principle of labor theory of value one can construct and analysis of production within the capitalist system. And, the values then had to be modified in the process of price formation in the markets. Only then can one show the exact nature of the relationship between the surplus value expropriated and profit accrued to capitalists. In the case of Ricardo, he realized that there is a definite and predictable relation between the price of commodities produced with higher than average capital and the price of commodities produced with lower than the average capital when wages change. Prices go up proportionately more in the latter case. This he explained clearly. Of course, price of commodities produced with exactly the same capital as the average remain proportionate to value when wages change. Ricardo realized that the price deviations in the first two cases will not exactly offset each other, thus, prices will not be proportionate to labor embodied (value). Once he could not hold the value of total output constant when the distribution changes between classes, he felt that he could not pin down the exact laws which "regulate" profit. In order to keep these deviations from values manageable, Ricardo sought a yardstick, an invariable measure of value. Thus, there is a definite similarity between the transformation problem and the invariable measure of value. It is actually the same problem approached from different angles. Ricardo wanted to keep deviations of relative values from prices constant by measuring them with an invariable yardstick and Marx wanted prices to correspond to values when values transformed. Their prolonged involvement with the problem described and the fact that they both left the problem not fully resolved meant their similarities influenced the perspectives of later interpreters. Despite their failures in constructing an invariable measure and solving the transformation problem, the basic contentions came to be recognized as being common: the surplus value is created in each branch of production (otherwise production would cease) in proportion to labor employed in that branch. Competition equated profit rates between the branches by

shifting the capital (surplus) through the price changes. Thus the most significant intersection between Ricardo and Marx is that they did not deal with the issue of price determination as the starting point of their aggregate theories of distribution. Prices always remained as a complication, not as the main contention. As pointed out by J. Robinson, both Ricardo and Marx "assume[d] away the complication of [prices] until they have got the main problem worked out... prices came out in the wash – including the relative price of money and labour."⁴⁰

Did Marx read his own view onto Ricardo? Some of the difficulties in answering such a question are already mentioned above. It is clear that Marx interpreted Ricardo in light of his own theories. But Marx, at times, rather than trying to project his own views onto Ricardo's analysis, criticized Ricardo for not thinking and formulating as he himself did. Many of Marx's criticisms can best be explained in terms of his own formulations. Marx, for example, criticized Ricardo for ignoring the Absolute Surplus Value and investigating only the Relative Surplus Value. He claimed that Ricardo equated the relative surplus value with profit, ignored constant capital, and assumed profit as given rather than deriving it from the foundation he carefully built. According to Marx's own formulation:

$$\text{Value} = \text{Dead Labor} + \text{Living Labour.}$$

He separates living labor into two groups: necessary and surplus labor (in this separation the distinction between "labor" and the value of "labor power" plays a crucial role). Thus

$$\text{Value} = c + s + v$$

where (s) is surplus labor v is necessary labor (variable capital) and c is the dead labor (constant capital). Surplus labor (s) creates surplus value and the rate of surplus value is equal to surplus labor (or "unpaid labor") divided by the paid labor (v):

$$\text{Rate of surplus value} = s/v$$

At this point it is easy to see Marx's distinction between "Absolute" and "Relative" surplus values. When the length of total working day ($s+v$) is extended, values and surplus values become different in size but the rate of surplus value remains the same. For example, assuming the working day is equal to 12 hours,

$$12=10+2$$

where 10 hours is necessary time and 2 hours is surplus time. The rate of surplus value is $2/10=0.2$. If the total working day is extended to 14.4 hours:

$$14.4=12+2.4$$

The size of surplus value increases from 2 to 2.4 but the rate of surplus value $2.4/12 = 0.2$ is the same as before. The only way that the rate of surplus value can change is when the unpaid labor time (s) increases and the necessary (paid) labor time remains the same:

$$10+2=12 \quad \text{rate: } 2/10=0.2$$

$$10+4.4=14.4 \quad \text{rate: } 4.4/10=0.44$$

Now, with technological advancement, the necessary labor time may be lowered. If the length of the working day remains the same:

$$8+4=12 \quad \text{rate: } 4/8=0.5$$

the rate of surplus value increases. This explains why Marx claimed that Ricardo ignored absolute surplus value by taking the length of the working day as fixed, and stated that surplus value can be increased by lengthening total working time without changing the necessary labor time.

Now, according to Marx, the capitalist bases his profit on all of his capital, not only his circulating capital: $r=s/c+v$, where (r) is profit rate, (c) is constant capital and (v) is variable capital. If the constant capital is ignored, obviously $r=s/v$ and profit would be the same as the rate of surplus value, which is exactly what Marx claims has happened in Ricardo's analysis. Furthermore, the assumption that the positive rate of profit exists from

the start would then come to mean that the rate of surplus value is positive, which would further indicate that the surplus labor (s) exists and therefore that there are a differences between values and prices of production.

When the rate of profit is defined as:

$$r = \frac{s}{c + v} = \frac{\frac{s}{v}}{\frac{c}{v} + \frac{v}{v}} = \frac{\frac{s}{v}}{\frac{c}{v} + 1},$$

the surplus value (s/v) and profit (r) are positively related but not the same thing, and increases in the proportion of constant capital (c) relative to variable capital (v) would make the denominator of the last equation larger and thus tend to decrease (r). This is true even if the variable capital does not change (if c/v increases while s/v remains the same, surplus value created by the quantity of labor power would have to be spread over a larger quantity of total capital, thus lowering the rate of profit). Ignoring (c) would reduce (r) and would explain all of Marx's objections.

Marx's criticism that Ricardo ignored constant capital should not be taken to mean that Ricardo was unaware of the existence of fixed capital at all. There seems to be a difference between Marx's division of capital into constant capital and variable capital and Ricardo's division of capital into fixed capital and circulating capital. Ricardo wrote:

A brewer, whose buildings and machinery are valuable and durable is said to employ a larger portion of fixed capital: on the contrary, a shoemaker, whose capital is chiefly employed in the payment of wages, which are expended on food and clothing, commodities more perishable than buildings and machinery, is said to employ a large proportion of his capital as circulating capital.⁴¹

Thus, for Ricardo wages are the variable and building machinery, tools and implements are the fixed capital. Marx's division is different. He wrote (as quoted earlier):

Ricardo never arrives at the concept of constant capital, of which one part consists of fixed capital and the other part -- raw materials and auxiliary materials -- of circulating capital; just as circulating capital includes not only

the variable capital, but also raw materials, etc., and all the necessities of life which enter into industrial consumption as a whole (not only these consumed by the workers).⁴²

Thus, Marx's Constant Capital is Ricardo's Fixed Capital plus raw materials plus auxiliary materials (such as fuel and components) while Marx's Circulating Capital is Ricardo's Variable Capital plus raw materials plus "the necessities of life." As far as Marx's exact definition is concerned, it then appears that Ricardo did not deal with Constant Capital. However, the whole criticism should not be reduced to simple semantic differences. Marx knew that Ricardo was aware of the existence of Fixed Capital. As mentioned earlier, Marx studied the third edition of the Principles and the third edition included a special chapter, "On Machinery." So Ricardo knew about Fixed Capital, but as many interpreters agree, the Machinery chapter came as an afterthought; it was not really integrated. Marx's objection is really to Ricardo's conception that the conditions of the wage-good sector alone determine the rate of profit, and that fixed capital was not instrumental in the production of wage-goods.⁴³

Marx praised Ricardo for starting with a labor theory of value but criticized him for not carrying out a successful transformation of value into prices. This is, as mentioned above, what Marx did but he was not quite successful. Motivations for starting from a labor theory of value were not quite the same for Marx and Ricardo. Marx wanted to discover the "laws of motion" of capitalism. He wanted to explain the origins of profit. For Marx, profit was a function of a social factor, the rates of exploitation, as well as a technical factor, the methods of production. He felt that the nature of the social factor can only be discovered in the production process. Thus he started with a simple production scheme in Volume I of Capital that commodities exchange at their value, and faced the other complications in Volumes II and III of Capital. Ricardo, on the other hand, was not seeking to discover the "laws of motion" of capitalism. He was motivated by the desire to correct some logical inconsistencies he observed in Smith's theory of value and to escape Malthus' criticisms that "the profits of the farmer no more regulate the profits of other

trades, then the profits of other trades regulate the profits of the farmer."⁴⁴ In other words, he wanted to be able to demonstrate the determination of profits without necessarily starting from the agricultural sector. Whatever Ricardo's reason may have been for regarding distribution as "the principal problem in Political Economy," it was not for the discovery of how capitalism worked. The latter reason being, if our interpretation is accepted, that Ricardo took the social relationships of capitalism for granted and regarded them as natural or even perhaps eternal. Thus, Marx's praise of Ricardo for not taking the relationships of capitalism, and imagining him to have a priori "historical consciousness" seems to be unfounded. In other words, Ricardo's method of investigation, starting with the labor theory of value does lead to a questioning of economic categories of capitalism, but it was not because Ricardo had a comprehensive, historical perspective of the socio-political evolution of societies. He had an ahistorical view of capitalism; he assumed he was living at the highest stages of capitalism and wanted to preserve the basic tenets of capitalism.

As mentioned at the beginnings of this chapter, Marshall found the origins of many of his theories in the works of British classical economists, especially in Ricardo. Marshall, in accordance with his general evolutionary thesis, underplayed the originality of his theories. Several aspects of neo-classical theory which Marshall claimed were anticipated by Ricardo are now generally recognized to be Marshall's original contributions: the theories of consumer surplus, producers' surplus, quasi-rent, variable returns, long-run cost based on measurable motives, utility based demand theory, clear differentiations of the influence of time factor on the variables investigated, etc. Marshall, while practically eliminating the political-ideological context and the explicit message of Ricardo's rent theory, has succeeded in producing a detailed analysis of the logical aspects of the same and found more than the seeds of marginal productivity theory of distribution in the Ricardian rent theory. He concentrated almost exclusively on the intensive rent in terms of marginal contributions of the capital and labor to the land already under cultivation and the

allocative role of the rent theory. He concluded that Ricardo's theory of rent was a special case of larger genus.

The most significant aspect of Marshall's extensions is that the prices appeared as the main argument, not as a complication which was the case in Marx's system. Marshall was interested in the relative prices of commodities. While his treatment of long-run determination of prices and quantities is generally found to be open to a multiplicity of interpretations, his analysis of short-run determination of prices is unambiguous and definite. It is the determination of individual market prices of commodities with the forces of demand and supply envisioned as being regulated by separate variables. Marshall was well aware that he needed the supply side for his scissors to cut and defended Ricardo ardently from the attacks of Jevons and others. As for the demand side, he claimed that Ricardo believed in a downward sloping demand curve but used vertical demand as a strong case. This was the main reason why Ricardo was interpreted as being ignorant of demand. Marshall stated, without textual support, that Ricardo had a utility based demand theory in substance.

Marx, Ricardo and Marshall shared a common point. Marx started his analyses in the Volume I of Capital with the Simple Reproduction scheme where economy was in equilibrium with zero accumulation. Marshall, in his investigation of prices in the short-run, assumed zero accumulation and started from an equilibrium position. In Marshall's construction, however, the central problem does not appear to be the determination of the distribution of total output between the classes, but the determination of market prices. He did not try to solve any macro problem of distribution before exploring the laws of determination of individual market prices of commodities.

Marshall, with his contributions, has brought Ricardo's theory of rent, the allocative functions of the rent theory, the principles of profit rate equalization under the conditions of perfect competition into sharp focus. But he has pushed the labor theory of value, invariable measure of value, distribution of real output in aggregate terms into the

background. Even though the title of his famous Appendix I was "Ricardo's Theory of Value," he never discussed the labor-embodied theory of value with all its constituent elements. Even though Marshall's perspective was dramatically different from Marx's as far as the underlying ideological, political messages and implications concerned, his tone was muted, quiet, and careful to avoid any ideological overtones. It was a dramatical change of perspective without stirring up controversy.

How much did Marshall read his own views into Ricardo? A full assessment of this, as indicated earlier, constitutes a very tricky problem indeed. It requires an answer to the question of whether one should or can describe the characteristics of one system in terms of another. Assuming this can be done, the next difficulty is to somehow identify the key assumptions and variables and the respective operational role given to them. A transformation of one's thought into another's frame of reference may be considered a "subversion"⁴⁵ if it fundamentally alters the original problem; still, others may consider it an extension, or a widening of horizons. A good hint as to the nature of such transformations may be obtained by investigating the method in interpretation used. Marshall uses "generosity" as an exegetical tool almost exclusively on the issues which point out key similarities between Ricardo's economics and marginalism without textual support from Ricardo. This indicates such a subversion. We shall examine the nature and the application of Marshall's exegesis below. Here, we shall point to differences in some key concepts of Marshall and Ricardo.

Marshall's understanding of and the importance he attached to use-value was different from Ricardo's. For Ricardo, commodities must possess utility in order to be valuable. Utility was only a prerequisite. But the relative value of commodities was not measured by the utility they afforded to individuals: "utility then is not a measure of exchangeable value, although it is absolutely essential to it."⁴⁶ Ricardo wrote this at the very beginning of his first chapter. So, the fact that different individuals regarded the same good differently was not a matter of concern for Ricardo in the determination of relative

values. For Marshall, however, subjective valuations of individuals were extremely important because, if two individuals decided to pay "a shilling for [a given good]; we may then say that those pleasures are equal for our purposes."⁴⁷ Marshall tried to avoid the reduction of all motives to pleasure and pain (perhaps due to Benthamite ethical connotations of such terms). For him, motives generally served "the satisfaction of the permanent self."⁴⁸ The importance Marshall attached to motives is evident from his definition of economics: "Economics is a study of men as they live and move and think in the ordinary business of life. But it concerns itself chiefly with those motives which affect, most powerfully and most steadily, man's conduct in the business part of his life."⁴⁹ Motives which affected man's conduct in business life varied from desire for wealth and desire for distinction, to altruism, and to several others such as "family affections... as pure form of altruism," desire for power, etc. They may be both pecuniary or non-pecuniary. Marshall's conception of real cost of production was based upon an assumption of the measurability of the strength of motives. According to Marshall, "the quality of motives cannot be measured but their strength can be measured."⁵⁰ His definition of real cost was based on the "efforts and sacrifices" incurred by labor and by capitalists "in waiting":

The exertion of all the different kinds of labour... together with abstinences or rather waiting... all these efforts and sacrifices together will be called the real cost of production of the commodity.⁵¹

Marshall adds that the sums of money which individuals are prepared to pay for these efforts and sacrifices are called the expenses of production.⁵² Thus, the real cost is total measurable efforts and sacrifices based on perception of labor as disutility and perception of capital as discommodity or sacrifice. Measure of this disutility is subjective not objective. G.F. Shove pointed out the differences as follows:

For Ricardo, labour is not a 'disutility' but the productive force available to the commodity, the stuff, so to speak, by means of which commodities are made and cost of a thing is the quantity of this force or stuff, together with the quantity of capital, absorbed on its production, not the effort and

sacrifice entailed in providing it. And though in his view the minimum rate of profit was the necessary compensation for the 'trouble and risk' ... undertaken by the investor, both he and Mill habitually conceive of the second element in cost also (the capital employed) in objective terms -- as the quantity or value of the wages advances and the length of time for which advance is made, not as a subjective discommodity or sacrifice.⁵³

Marshall's concepts of consumers' and producers' surplus are also based on subjective valuation. In the former case, it is the difference between the price one is prepared to pay (as a result of subjective valuation of the good in question) rather than going without the good and the price one actually does pay.⁵⁴ In the latter case, it is the difference between a payment one receives for a job done "most unwillingly" and a payment one receives for a job done "less unwillingly and at less real cost to himself."⁵⁵

Marshall's use of terms "margins" and "marginals" has been criticized by several economists as leading to "constant confusions" between the differential rent theory and marginal productivity theory. As shown above,⁵⁶ in Wicksteed's opinion, "marginal land" in agriculture, according to Ricardo's theory of rent, refers to quality of land when different lands are cultivated side by side. Due to inherent differences of quality, when inferior lands are cultivated, rent accrues to lands with higher fertility. This particular definition of marginal rent is different from Marshall's usage, which is the value attached to small increments. Marshall's usage of the term "marginal" is made possible by his predominant consideration of intensive cultivation in agriculture. This is based upon Marshall's conjectures that Ricardo was concerned with "the conditions of an old country." Since Ricardo recognized both the intensive and extensive cultivations, it then becomes a matter of deciding which margins dominate Ricardo's theories. Marshall has decided in favor of the intensive cultivation. Later economists considered the difference between the two conceptions of margins as very crucial. Sraffa uses the terms "genuine" and "spurious"⁵⁷ to differentiate the two conceptions of margins. The same criticism is accepted by later economists of the Cambridge tradition (Eatwell, Garegnani, Roncaglia, et al.)⁵⁸ Apart from epistemologic differences in the usage of concept of margins, Schumpeter, Knight,

Mitchell argued that Ricardo's major emphasis was on the extensive cultivation, and Hollander argued that the major emphasis was on the intensive cultivation.

In any case, Marshall's modifications made it possible to extend the differential rent theory to any factor returns. In the absence of technological improvements, when small increments of factors successively applied to a given production process, return eventually diminishes. One extension of Ricardo's differential rent theory is made possible by the consideration of the use of machines with differential qualities in agriculture. In Ricardo, when obsolete machines are used side by side with superior machines, rent obtained by the use of superior machines is determined in the same way as the rent of land. Marshall, with his conception of quasi-rent, generalized and extended this idea of land rent obtained by the use of machines to any area where machines are used; and at the end the dividing line between quasi-rent and agricultural rent become extremely fine.

To reiterate, in the preface of his Principles, Ricardo announced the problem he was trying to solve: the distribution of total output between wages, rent and profit. The theory of value was the means for studying the distribution of the total "produce of earth." Regardless of the details of his system, this is the problem he posed. The value problem is essentially a macro problem for Ricardo. Marshall dealt with an equally difficult and complicated problem which basically posed a different question: why a commodity A costs more than a commodity B. This is essentially a micro problem. Apart from all of the controversies about the details of the theories of both economists, this difference about the problem under investigation stands out as a vital change in the scope of inquiry.

Sraffa's interpretations and his own contributions concentrate on totally different aspects of Ricardo's economics than Marshall's. We have already discussed the significance of Sraffa, his interpretation of Ricardo and the general tenure of his own contributions. Sraffa supplied an interpretation of Ricardo in his famous introductions which contained many novel aspects. He then put his interpretations to "use" in his book, Production of Commodities by Means of Commodities, which he claimed to have based on

Ricardo's techniques. In his book, Sraffa discussed similar topics, investigated the relationship between wages, profits and prices of production for given condition of production. Sraffa solved Ricardo's problems of invariable measure of value, and more significantly, established a system in which wages, profits and prices of production are determined outside the marginalist framework. His approach is characterized as being an approach to economic analysis which had its roots in the writings of all classical economists including Marx. It is based upon the conception of surplus of commodities over the necessities required for their production. In this approach, income distribution is separated from pricing and exchange relations are grounded in the conditions of production. Sraffa, as corollaries to his main arguments, provided an analytical critique of marginal productivity theory of distribution. These are used as the main and most powerful weapons against the marginalist tradition in the capital controversy which took place in the 1960s and 1970s. Thus, in contrast to Marshall's contributions, Sraffa's system led to discussions of the aspects of Ricardo in terms of concepts entirely different than Marshall's. Production, techniques of production, reswitching, input-output analysis, creation of surplus, distribution of surplus, labor embodied theory of value, invariable measure of value, etc. are topics in the discussion. In his system, there is no room for "marginal method," variable returns, utility based demand and integrated price and income theory. Both Sraffa's own system, and the issues debated in the capital controversy came to be associated with the economics of Ricardo, directly or indirectly. In other words, these discussions have provided a framework for later interpreters of Ricardo. Sraffa saw his book as a "Prelude to a Critique of Economic Theory" and expressed that some of his arguments "have been designed to serve as a basis for a critique" of marginal theory of value and distribution.⁵⁹

As for his critique of marginal theory of value and distribution, Sraffa's provided powerful analytical arguments. It should be noted that his arguments were not directed towards one logical aspect of marginalism, but to the general marginal theory of value and

distribution. The results about the impossibility of aggregating capital are mentioned above. Sraffa provided two additional analytical arguments which became major issues in the ensuing capital controversies. The first one is the "double switching" argument which concerns the possibility that the same technique of production may be the best of the number of techniques (in terms of profitability) at more than one rate of profit, although other techniques may be used at rates of profit between them. The related but differing phenomenon of "capital-reversing" can be described as "the value of capital moving in the same direction as the rate of interest." According to Harcourt, "both arguments imply that the same physical capital goods will have more than one value, because a different real wage rate and set of relative prices will be associated with the method have to be valued at their appropriate set of prices."⁶⁰ The capital-reversing argument is the outcome of Sraffa's analysis of the "Reduction to Dated Quantities of Labour." The details, phases, and some of the famous arguments are now well known and therefore need not be discussed here. It is now generally accepted that the existence of double-switching and capital-reversing "cast severe doubt on the general validity of the neoclassical parables which are based upon the explicit assumption that high rates of profit are associated with techniques involving a relatively low level of the aggregate capital-labor ratio."⁶¹ It is also quite clear that the possibility of double-switching is not a remote one; it is the general case rather than a special case. The only case that rules out the possibility of double-switching is one which requires an equal capital-labor ratio between the sectors in question. Thus, the double-switching shows that the neo-classical models using an aggregate well-behaved production function cannot escape the very charges which were directed against the pure labor theory of value (established in the first chapter of the Principles before the introduction of the "modifying principles"). The general equilibrium approaches escape the consequences of double-switching. It must be noted here that an assumption of equal capital-labor ratios between sectors implies a straight line "factor-price frontiers." As shown in Chapter Eight above, this is precisely the assumption made by Hollander in his

model. Sraffa's interpretations, the particular approach in his book, the capital controversy and the later developments and contributions of other Cambridge economists have led many economists to claim that there are two distinct approaches to economics (the dual development hypothesis) and the Smith, Ricardo, Marx, Dmitriev and Sraffa branch is distinctly different from the marginalist-neoclassical approach.

There remains one more issue to discuss and that is whether or not Sraffa read his own analyses onto Ricardo. The same problems and difficulties in dealing with such a question exist in the case of Sraffa as in the cases of Marx and Marshall. Based on Sraffa's interpretative style and the extreme care with which his introduction and his book were written, it is very difficult to say that he did. However, Sraffa himself points out in his book in "References to the Literature," that he was inspired by "a method devised by Ricardo" in which corn appeared as both the input and the output. Sraffa, in the next paragraph, wrote:

It should perhaps be stated that it was only when the standard system and the distinction between basics and non-basics had emerged in the course of the present investigation that the above interpretation of Ricardo's theory suggested itself as a natural consequence.⁶²

First, it is a tribute to Sraffa's intellectual honesty that he should have revealed the way he arrived at his particular conjecture about the "rational foundation" of Ricardo's early theory of profits. Sraffa, however, never claims that Ricardo explicitly stated the argument as such.⁶³ Thus, the feasibility of such an interpretation has to be decided by the reader of Ricardo. Second, starting from the 1920s, Sraffa has been the "true enemy of demand and supply." His interpretation of Ricardo should be seen as part of his theoretical efforts begun in the 1920s and ended in the 1960s. In his 1926 article, Sraffa's objections to Marshallian economics were not directed to one logical aspect of the theory of the firm. He objected to entire marginal theory of value and distribution using demand and supply analysis. More specifically, Sraffa was not criticizing the fact that under the competitive

conditions each atomistic firm has the potential of becoming a monopolist, as Joan Robinson understood it. She missed the main message of the article entirely. It seems that Sraffa was in fact claiming that under the given conditions of competition, one cannot possibly assume that the demand curve is independent of the supply curve. Thus, price cannot be determined by the intersection of such curves. The irony about the clue Robinson received from Sraffa is that when Sraffa wrote the article (originally in Italian) in 1925, he did not include the passages which gave rise to the theory of imperfect competition. It has been pointed out that "the passages on monopoly... were added to [the 1926 English version] to placate an English audience accustomed to pragmatic judgments about the real world."⁶⁴ Sraffa's intentions were clear from the 1920s. In 1930, Sraffa was of the opinion that Marshall's theory cannot be made logical with the facts it sets out to explain. He wrote: "I think it is Marshall's theory that should be discarded."⁶⁵ Finally, Sraffa also states that the central propositions of his book had taken shape in the late 1920s.⁶⁶ Therefore, it is obvious that Sraffa worked on his book and on the Ricardo volumes at the same time. So, we can conclude that his earlier works, the introductions to the Works and Production of Commodities by Means of Commodities, were directed against the marginal theory of value and distribution.

Finally, it seems appropriate to conclude this section with two observations regarding the capital controversy. First, it is true that Sraffa's book provided effective and logical arguments for the Cambridge School. However, the arguments about whether or not double-switching is a possibility were conducted purely in technical terms and using terminology of the marginalist tradition. It is generally recognized that the Cambridge School prevailed; but in at least one sense they failed: too much concentration on the double-switching obscured the significance of the professed methodological differences between the two traditions. In the end it was generally accepted that double-switching was a possibility but the problem can be corrected by rigorous mathematics. As the later developments show, "the vintage models" partially corrected this problem of double-

switching. In recent years, with the prominence of general equilibrium approach, the double-switching argument has become irrelevant. The real issue remained in the background even though it was recognized. From the perspective of the Cambridge School, the Capital Controversy should have been about what Robinson in the late 1970s called "the timeless equilibrium" conception of the neoclassical tradition. In other words, without taking all the relevant institutional, social and political variables for granted, one cannot realistically connect the past to the future. The past is irreversible. When an economy moves from one equilibrium point to another, a structural, institutional, and socio-political change takes place and makes the reversal impossible. It is not agreed that the neo-Ricardian approach makes this "historical times" a central consideration in their own analysis, and the issue whether the Cambridge economics represents a new paradigm cannot be said to have been resolved.

Second, Sraffa's interpretation of Ricardo exonerated him from all the charges brought in the capital controversy about the technical, analytical and logical "deficiencies" of marginal theory of distribution. Ricardo's system appeared untouched since it stood apart from the Cambridge critiques of marginalism. Samuel Hollander's interpretation attempts to "save" Ricardo from the vulnerable place in which he was put by Marshall. Hollander places Ricardo in the tradition of Walrasian general equilibrium framework and none of the technical critiques of the Cambridge school apply to the general equilibrium approach. Thus, Hollander's Ricardo, again remains outside the critiques of the Cambridge School. Perhaps this is why G. Caravale calls recent reinterpretations of Ricardo as "unconscious attempts to recapture one's 'Paradigm Lost.'"⁶⁷

VII. THE DIFFERENCES IN THE INTERPRETATIVE STYLES OF THE INTERPRETERS

In the last two sections of this Chapter, we examined the role of ideological and political orientations of the the interpreter influencing his approach to Ricardo's economics. We claimed that both the ideological make-up of the interpreter and the awareness or acceptance of ideology as an interpretative category by the interpreter influences his interpretive hypothesis and enables him to raise revealing questions. We then showed that the differences of perspective (other than ideology) are another source of multiplicity of interpretations. Different economists make different "uses" of Ricardo's theories and develop quite opposite theories, or interpret Ricardo from analytically different perspectives. In the former sense, we have an appropriation or extension, and the latter sense we have interpretations bearing upon the debates in economics, associating the economics of Ricardo with the perceived characteristics of known paradigms.

Interpreters, in accordance with their ideological make-ups and analytical perspectives, employ different interpretative techniques. Oftentimes the interpreter adapts a style to accomodate his ideological-analytical perspective. In other words, interpreters follow a style which they think serves best the interpretative ideas they seek to develop. Conversely, certain styles, by asking different interpretive questions, and by following a different exegetical rule produces different interpretations. Keeping this interrelationship in mind, one can claim that the multiplicity of interpretations of Ricardo are caused in part by the differences of the interpretative styles of the interpreters. "The interpretative style" is a loose term by which it is meant that a) each interpreters' understanding of what the act of interpreting is different and b) that there are differences in the interpretative tools employed in answering the questions posed. In other words, each interpreter, implicitly or explicitly follows an exegetical rule in order to provide answers to interpretative questions asked.

We therefore have two significant issues. First, upon closer examination it appears that each interpreter, as a part of his general perspective, employs a technique of exegesis. Thus, the differences of interpretation may be partly due to the different techniques of exegesis. In other words, the differences in exegetical techniques are part of the "problematic" of the interpreter. As shall be seen below, the identification of exegetical techniques, and rules employed by the interpreters is sometimes easy because the interpreter makes his rule(s) known or gives clues about them (as in the case of Marshall). The exegetical technique and the rules may be sometimes implicit and have to be uncovered by the interpretative questions posed, and by the criteria used in defending or substantiating the interpretative hypotheses put forth. In such cases, certain interpretative categories are favored over others in terms of their explanatory power, realism, or validity. Thus, in this sense, the hermeneutics of Marshall ~~is~~ different then the hermeneutics of Mitchell.

Second, we have a broader problem, posed by the fact that there are so many conflicting interpretations. The differences of interpretations of the economics of David Ricardo pose a hermeneutic problem and raise a hermeneutic consciousness about the theories of economic thinkers of the past. A part of the hermeneutic problem is that of exegesis, but hermeneutics is not confined to purely the techniques of exegesis and "mechanical" rules of interpretation. Hermeneutics, in the last 50 years, has been considered as a "philosophy" dealing with the nature and methods of understanding. Certain hermeneutic schools appeared to challenge traditional hermeneutics, and accused the traditionalists of confining the hermeneutic problem to only the problems of exegesis, with special emphasis upon philological, syntactical aspects aimed at uncovering meaning. It has been claimed that traditional hermeneutics was a branch of philology, dealing with certain fixed rules in order to make the meaning, which is more or less fixed in the text, "clear" to the reader. Hermeneutic philosophy, on the other hand, tries to extend the scope of hermeneutics to levels where hermeneutics is no longer merely a method but a methodology and perhaps

even a philosophy for any discipline in which the meaning is conveyed through indeterminate devices, such as verbal structures, sentences, visual aids, pictures, etc.

Thus, as part of the "problematic" of the interpreter, the next section investigates the exegesis of some of the interpreters included in this study and searches for ways in which these interpreters apply their exegetical rules (implicit or explicit) with some reference to hermeneutic theory. In other words, without trying to fit the exegeses of interpreters investigated in our study into a theory of hermeneutics, we shall try to extract certain elements from their interpretations, such as their understanding of the meaning of interpretation per se, rules of exegesis used, the categories assumed to be relevant and valid in the interpretation, the techniques of uncovering the meaning, etc. In the next section, based on the hermeneutic elements established through such investigation, we shall put the hermeneutic problem (as it is present in the interpretations investigated) into a context with reference to the theory of hermeneutics. Based on the generality of causes for the multiplicity of interpretations identified, including the different exegetical methods, we shall investigate whether or not one can say, a certain margin of error withstanding, that same multiplicity applies to other economists of the past.

The following passage provides clues about Marshall's understanding of the meaning of interpretation and his tools:

If then we seek to understand him rightly, we must interpret him generously, more generously than he himself interpreted Adam Smith. When his words are ambiguous, we must give them that interpretation which other passages in his writings indicate that he would have wished us to give them. If we do this with the desire to ascertain what he really meant, his doctrines though very far from complete are free from many of the errors that are commonly attributed to them.⁶⁸

This brief passage is the only place Marshall gives an explicit statement of his interpretative procedure. Nevertheless, he touches upon several important points. The first point is, according to Marshall, that the act of interpretation should serve the propose of providing the reader with "correct understanding." The second point is that the "correct meaning," or

the correct interpretation of a given passage is one which corresponds to what the author "really meant," or what the "author intended" to convey. The third point concerns the exegetical tool(s) to be used in order to arrive at the "correct meaning," which seems to be rolled into one word: generosity. Ricardo should be interpreted generously. It is not entirely clear what Marshall means by the term "generosity," but as discussed earlier, Marshall claimed that the generosity is necessitated by ambiguities present in the writings of Ricardo which were mainly the result of his poor communicative skills. Thus, he proposed another rule to be used in the case of unclear use of terms, or in the case in which there may be ambiguities about his concepts: one should check other passages in his writings to determine what he really meant or intended by that particular phrase or concept or series of concepts, and then go back and interpret the unclear passage according to the passages where the meaning is clear. Therefore, it seems plausible that Marshall used the term "generosity" to mean a philological interpretation of "unclear" terms and passages, including the method of using parallel and antithetical passages. We shall explore this below. The fourth point is that Marshall, while explaining his understanding of the act of interpretation and stating his rule, squeezed in an interpretation: Ricardo did not interpret Adam Smith generously. Ricardo's interpretation of Smith is appeared in the Principles concentrated mainly on the theory of value. As is known, Ricardo was motivated by "correcting the inconsistencies" he found in Smith's theory of value. Thus, Marshall, by claiming that Ricardo did not interpret Smith generously, is making an implicit comparison between "the errors that are commonly attributed to [Ricardo's doctrines]" by his interpreters as a result of ungenerous interpretation, and the errors Ricardo attributed to Smith. Ricardo, as will be recalled, claimed that there was a circularity in a theory which explained value in terms of the prices of its component parts. Before studying how Marshall actually uses his exegetical rules, a few points should be made about his proposed exegesis.

The traditional hermeneutics, generally assumed to have originated from the writings of a German theologian F.D.E. Schleiermacher and developed further by Dilthey, Betti and others, often makes use of the distinction between understanding, explanation, judgment, and criticism. Understanding is the construction of the text's meaning in its own terms and explanation is verbalization of the understood meaning, perhaps in terms different from those of the text but more familiar to the interpreter and to his (interpreter's) readers or audience. Oftentimes the elements of understanding and explanation are linked together: explanation of the understanding is interpretation. If the interpretation shades off into evaluation and judges the text in terms of "external" considerations, that constitutes judgment. Judgment is the act of construing a relation between the text and something else. If the act of judgment itself is explained and discussed this activity is called criticism. Thus, the object of interpretation is to establish "meaning" and the object of judgment and criticism is to assess "significance."⁶⁹ Now, as we shall see below, while claiming that his interpretation is aimed at providing a correct understanding Marshall in fact judges Ricardo's economics. He seeks to compare the ideas of Ricardo with the basic tenets of marginalism and tries to prove that there are in fact no significant, substantive differences between the two. Furthermore, because Marshall does not give textual support for his assertions, he does not explain how he arrived at his particular understanding. In the hermeneutic theory of Gadamer, we see the first two "moments" are being combined. Every understanding and explanation is an interpretation and every interpretation is a result of particular understanding. Yet Gadamer adds a third moment which seems to combine the last two elements, judgement and criticism: application. It is the process of putting a particular interpretation to "use." In order to make the understood meaning clear and more explicit, an interpreter designs a system in which he shows the "significance" of the interpretation (of the "meaning"). As we shall see, according to this hermeneutic view, the extensions of Marx, Marshall and Sraffa are "application" and these "applications" are a

part of the interpretative process. For example, Gadamer would claim that Marshall's theory of quasi-rent is an "application" of Ricardo's theory of land rent.

As for Marshall's point about the "correct" interpretation as being the one which corresponds to what the author intended or meant to say, this represents a well-known "canon" of interpretation first established by Schleiermacher in his handwritten manuscripts entitled "Hermeneutics." Since the "author's intention" is accepted as the best criterion for deciding between the conflicting interpretations by so many interpreters, and used actively in the jurisprudence ("original intent" of the lawmaker), we should quote the original statement of this canon and defer the full discussion and criticism of it to next section. Schleiermacher claims that the task of the interpreter is "to understand the text at first as well as and then even better than its author."⁷⁰ Since the interpreter has no direct knowledge of what was in the author's mind, he must "try to become aware of many things of which he himself may have been unconscious, except insofar as he reflects on his own work and becomes his own reader." Thus Schleiermacher states his canon that "before the art of hermeneutics can be practiced, the interpreter must put himself both objectively and subjectively in the position of the author."⁷¹ As far as the "objective" side is concerned, Schleiermacher suggests that the interpreter should know the language as the author knew it, and on the subjective side he has to know "the inner and the outer aspects of the author's life."⁷² Grammatically, says Schleiermacher, the task of making interpretation reflect the original intentions of the author requires "a precise determination of any point in a given text must be decided on the basis of the use of language common to the author and his original public."⁷³ These canons are very general but the idea that the author's intention is the prime consideration for the interpreters is present. As we shall see below, others have developed these canons further and the "author's intentions" later become a school of hermeneutics.

Marshall's exegetical rule about ambiguous words and concepts, and checking the other passages where meaning is clear seems to be well-founded in the classical

hermeneutics. Marshall's rule suggests a "philological interpretation" in order to determine the meaning of terms. Again, Schleiermacher suggested series of canons with respect to "Grammatical Interpretation," one of which closely resembles the one suggested by Marshall. Schleiermacher wrote that:

If a word cannot be explained by the context in which it appears, then it can be explained from the other contexts or from parallel passages in which it appears.⁷⁴

This canon came to be known as "the use of parallel passages" and was found to be a useful technique especially in theological interpretations where the primary purpose is to make the meaning of words clear. Schleiermacher suggested another canon to be used in cases where meaning of words is not clear:

If the subject cannot be determined directly by the predicate, than it can be determined mediately by the predicate of its antithesis.⁷⁵

This last canon is also used in theological interpretation. If, for example, one is searching for the meaning of the word "spirit" and discovers the antithesis to be the word "flesh," that would give a clear idea about the meaning of spirit. Despite the usefulness of these canons, one can quite logically argue against them. The question which immediately presents itself with respect to the first canon is this: if the usage in the first passage is unknown how can one possibly know what the parallel passages are? With respect to the second canon, how can one be certain about the true antithesis if the thesis is not known? There are several grammatical techniques suggested in order to identify parallel and antithetical passages but in the case of interpretation of the economics of Ricardo these canons alone (i.e., Marshall's exegetical rule) are far from being a solution to arrive at the "correct" interpretation. Assuming that one finds out what the word "rent" means by an appeal to parallel passages, this discovery alone has little use in understanding what Ricardo's theory of rent amounts to and how it is nested in his larger model.

Marshall, as we mentioned earlier, suggests generosity in the interpretation of Ricardo. In what remains we shall try to show that this rule of generosity is objectionable because of the way Marshall puts this rule to use. As quoted earlier in Chapter Four above, Marshall's rule of "generosity" is based upon 1) his belief that Ricardo wrote not for publication but for himself and a few friends who were familiar with the subject matter and 2) his speculation that due to his Semitic origins and his background in business Ricardo was prone to abstractions and expressed his complicated abstract ideas in a style which invited misunderstandings. As far as the first point is concerned, Sraffa, as mentioned above, pointed out that now available letters of Ricardo to J. Mill show that Ricardo was thinking of publication even while he was writing his Principles. As far as the second point, apart from the "Semitic origin" conjecture, Ricardo himself admitted that he was a poor master of language and sought Mill's assistance in organization and composition. Mill repeatedly claimed that Ricardo's exposition was "both satisfactory and clear," but these might have been words of encouragement to help Ricardo overcome the fear of composition. As mentioned above, Malthus found his exposition perfectly clear, it was "never obscure when either the view itself is erroneous, or the terms are used in unusual senses." The quality of Ricardo's style and the extent of his powers for expressing his ideas are debatable issues. As we have already pointed out at the beginning of this chapter, some confusion might be attributable to Ricardo's style. But Marshall's almost exclusive attribution of all the controversies surrounding Ricardo to style and inability to express his ideas is clearly one of the most distinguishing and the most objectionable features of Marshall's exegesis. If Marshall's exclusive attribution is accepted, all controversy about Ricardo's meaning would disappear, or at least be greatly reduced by a careful philological and syntactical interpretation.

It is not so much the idea of interpreting Ricardo generously that is objectionable, but rather Marshall's penuriousness in supplying textual evidence for the interpretation of Ricardo along his suggested lines. In other words, Marshall does not use his exegetical

rule symmetrically: while he makes use of his rule of generosity in refuting previous interpretations (for example, Jevons, Macleod, Walras, Menger, Böhm-Bawerk, Wieser) without giving textual evidence in support of his theses, he does not use it at all in cases which may be especially open to opposing interpretations. In most cases, Marshall's argument goes as follows: Ricardo appeared to have said A to some people because he did not make his meaning clear, but he actually meant B.

The second distinguishing character of Marshall's exegesis is the selection of particular topics themselves, all of which, according to Marshall, require generous interpretation. Some examples of these subjects are as follows:

1) Marshall claimed that "Ricardo often glided with careless brevity, as to the dependence of value on cost of production; but which he never regarded as more than a part of a larger doctrine"⁷⁶ of demand and supply.

2) Ricardo was particularly responsible for the controversy over whether the cost of production or utility governed the value, because he made a mistake in not stating explicitly what he was doing." He gave prominence to the long-run, thus ignoring temporary market fluctuations, and the existence of demand was taken for granted. In such a situation, "a person may be excused for ignoring the influence of demand and speaking of (normal) prices as governed by cost of production."⁷⁷

3) He had a profound notion of demand based on utility because in "his discussion of the difference between 'Value and Riches' he seems to be feeling his way towards the distinction between Marginal and Total utility." But Ricardo, being "ignorant of the terse language of differential calculus did not get hold of the right words in which to say neatly, marginal utility is raised and total utility is lessened by any check to supply."⁷⁸

4) Ricardo wrote about time which was the same thing as "waiting" and believed it to be a quantifiable factor of production like labor. "Unfortunately, however, he delighted in short phrases, and he thought that his readers would always supply for themselves the explanations of which he had given them a hint."⁷⁹

5) Ricardo was aware of variable returns (increasing, decreasing and constant) "yet he thought it best to ignore this distinction in a theory of value applicable to all kinds of commodities... and assumed provisionally that they all obeyed the law of constant returns." Satisfied with this explanation Marshall blames Ricardo: "in this perhaps he was justified, but he made a mistake in not stating explicitly what he was doing."⁸⁰

6) Ricardo laid down the law of diminishing returns; but "his wording of the law of diminishing returns was inexact. It is however probable that the inaccuracy was due not to careless thinking but only careless writing."⁸¹ Ricardo appeared to have given emphasis on extensive cultivation but this was also a carelessness because he had the conditions of an "old country" principally in mind. Therefore, by extending cultivation, he really meant that the existing land would be cultivated more intensively.

7) Ricardo was aware that rent is due to marginal productivity of capital and labor determined by successive application of capital and labor on the same land but "he did not emphasize it enough." The proponents of Ricardo who claimed that his theory "has no application to places where all the land pays a rent, have mistaken the nature of his argument."⁸²

8) Ricardo had a profound discussion by which he demonstrated allocation mechanisms in terms of demand and supply following a disturbance such as sales tax levied on corn but his reasoning was "rather difficult to follow: because he often gives not hint when he ceases to deal with results which are 'immediate,' and belong to a 'short period'... and belong to 'long period'... when such interpretive clauses are supplied very few of his reasonings will be found invalid."⁸³

9) It would be incorrect to attribute Ricardo with an "iron law of wages." This is another misunderstanding explicable by "Ricardo's delight in imagining strong cases" and "his habit of not repeating a hint"⁸⁴ that he was purposefully simplifying his analysis. Ricardo treated wages rather unusually, as a ratio to the value of output, but this caused

confusion because "he did not remind his readers often enough." He should have made his meaning clear that he in fact considered wages not fixed.

After the publication of Sraffa's edition of the Works including his introductions in the early 1950s and later with the publication of Sraffa's own book in 1960, there appeared more objections to Marshall's exegetical rule of generosity. Several other interpretations appeared which pointed to the affinities of Ricardo's theories with diverse systems, such as Marxism, neo-Ricardianism, and marginalism in Walrasian general equilibrium sense. The term "generosity" assumes the superiority of a certain doctrine with which Marshall associates Ricardo's theories. For Cambridge economists, the attribution of a marginal productivity theory of distribution based on measurable quantity of aggregate capital and labor is not a "generous" attribution to Ricardo at all. For them, attribution of such a theory which has been proven to be analytically defective reduces the value of Ricardo's original theory of distribution. Attribution of a demand and supply theory to Ricardo is not generous from the perspective of a Marxist economist; it in fact weakens Ricardo's works.

Objections to Marshall's generosity are not confined to recent critics. W.J. Ashley at the end of the last century, debated Marshall's attribution of cost of production theory to Ricardo where labor and waiting had equal roles. Ashley wrote:

Our "generosity" may find in him charming anticipation of our own ideas; and yet if it fails to lay stress upon what was really learnt from the teacher by those he immediately influenced, we shall give a false impression. The economic historian, we are told, is apt to be confused in theory. I am afraid we must add that the sympathetic theorist runs the risk of being unhistorical.⁸⁵

Thus, Ashley criticized Marshall, in effect, for "transferring his own views onto Ricardo by undertaking to interpret him generously,"⁸⁶ running the risk of being unhistorical by "discarding Ricardo's surplus approach"⁸⁷ based on his labor theory of value.

Marx did not suggest any ready-made exegetical rule in interpreting Ricardo. He did not compare and contrast his interpretation with the interpretation of others. Marx's interpretative style is in a sense unique. From the content and the structure of the Theories of Surplus Value, it is clear that Marx was actually working out his own theories of surplus value and profit by a method of critique of Ricardo. As Schumpeter put it, "criticism of Ricardo was his method in his purely theoretical work." This criticism, perhaps due to the unfinished nature of his work, which was left as rough notes, resembles more to a dialogue between Ricardo's text (Principles) and Marx's own reasoning. Marx constantly challenges Ricardo's statements, sometimes praises him, sometimes gets angry and frustrated, calling him names such as "clumsy," "blind" etc. It is a dialogue in which Ricardo rarely speaks. Ricardo poses the questions in short sentences and Marx's elaboration upon these sentences sometimes takes pages.

In this sense, Marx's interpretation is not aimed at making Ricardo's meaning clear to others. He does not try to "convince" anyone that Ricardo meant x by the statement quoted and y in his chapters on Value and Rent. He simply takes Ricardo's meaning as he understands it and theorizes about the "significance" of that particular thought. His interpretation is a combination of judgment and criticism; not designed to facilitate the question of how Ricardo should be interpreted, and what one should do in order to understand him "correctly." Contrary to Marshall, Marx considers Ricardo not to be abstract enough. He does find Ricardo's exposition clumsy but this is not due to stylistic weaknesses, it is due to Ricardo's inability to carry through his analyses to their logical conclusions. This is actually what Marx does. He, in his own critical way, attempts to establish a "fusion of horizons" in the sense of linking perspectives and carries the labor theory of value aspect of Ricardo to its logical consequences.

Mitchell uses a distinctly different approach of interpretation. At the beginning of this chapter we have stated that Mitchell's approach makes the economist the product of

their specific historical circumstances. Thus, he attempts to understand Ricardo's economics in relation to institutional, environmental, political, and ideological, and circumstantial influences. He believes that the meaning and the significance of the contributions of economists cannot be established independently of their socio-politico-economic circumstances.

The contents of Mitchell's interpretation cannot be appreciated without the understanding of his method of interpretation. His method of interpretation is not confined to elucidating the meaning of a particular term, or phrase or a theory; it has a much wider scope. In other words, he is not solely concerned with the methods of exegesis, rather he is concerned with the establishment of a broad interpretative perspective from which one can study the economic doctrines of the past. Mitchell sees two different types of approach in the study of economic doctrines. The first type asks the question: "what doctrines have been propounded and were they right or wrong?" The second type asks: "what doctrines have been propounded and how did men come to believe them?"⁸⁸ Mitchell subscribes to the second approach rather than that of "right or wrong."

Mitchell argues that economics as a science is in a rudimentary stage and exists not only as a single body of theory but as several types of theories. He recognizes the existence of distinct schools and claims that each school produces different types of theories and theorists. One point of departure for each school is its approach to human behavior⁸⁹ and its treatment of human nature:

The fundamental difference among the several types of economic theory lies in what the successive generations of economists have considered the central problem of the science... but there is a second and related differential factor. This is the conception of human nature with which an economist operates. The conception of human nature is ordinarily regarded as the subject matter of psychology rather than economics; but, economics is a science that deals with a certain phase of men's activities. It is coming to be seen more or less clearly nowadays that economics is one of the social sciences, all of which are concerned with the common problem: the behavior of human beings in society. It is closely related to sociology,

political science, anthropology; it has definite relation to law and obviously to psychology.⁹⁰

Since different schools of thought differ in their formulations of the central problem of economics, method, and conception of human nature, "anyone who wishes to become acquainted with economics in its present state and to make use of what has been learned by others in advancing knowledge himself needs to read more than one treatise, giving more than one viewpoint."⁹¹ This, if carried further, implies that to understand a school of thought and its representatives, one has to consider specific circumstances, historical and social facts, the socio-political and institutional and intellectual atmosphere of the times as well as the knowledge of underlying psychological factors and assumptions about human nature. It also means that an interpreters' stance is conditioned by his own position, since each interpreter is a product of a certain time, culture and ideology; consequently, there is a certain amount of bias in all "right" or "wrong" kinds of interpretation. An interpreter approaches a problem with his own preconceptions. Because an interpreter's preconceptions are also changing and because his ideas about human behavior are constantly evolving, there is a need for a wider body of knowledge and a variety of tools to capture essential aspects of a theorist. Mitchell believes that the circumstances provide men with practice in handling certain problems, familiarity with certain ideas and sympathy with certain standards. There may be certain aspects in a man's character that one cannot label as economic, however, these aspects may provide good clues to his intellectual formulations. Religious traditions, the social status of his family, the books he reads, his health and his inherited characteristics may all be relevant.⁹² Mitchell believes that the theories of the economists of the past are influenced by their individual idiosyncrasies. These idiosyncrasies can be at least partially understood by an appreciation of the social elements in an individual's general intellectual make-up. With the help of other disciplines, one can take an meaningful and fruitful approach to this mode of understanding. Mitchell contends that "progress in this field [economics] depends upon the progress in several lines

of science involved in understanding human behavior."⁹³ By careful application of not only principles of economics but also the related disciplines of sociology, anthropology, psychology, political science, and law, it is possible to produce a meaningful sketch of the type of problems a theorist attacks. His method of formulating those problems, his previous knowledge and the body of material he had to work with, the things he took for granted the basis for the confidence he felt in his results and his acceptance or rejection by his contemporaries are all relevant considerations.

In summary, Mitchell's interpretative style involves not only the identification of basic tenets of doctrines, but also proposing answer(s) to the question of how these doctrines influence men. For Mitchell, a statement of the theories is only a small part of the task of an interpreter. It can be said that it is a part of "knowing" rather than "understanding." One can know a theory, can give a full presentation of the assumptions, variables and operation of variables. This does not constitute an "understanding." Understanding involves some sort of linkage between the two perspectives. In the establishment of that particular linkage, the only access the interpreter has to the world of the original author, apart from the text in front of him, is the knowledge of historical conditions (of all sorts) which influenced the author. Mark Blaug once claimed that "the task of the historian of economic thought is to show how definite preconceptions lead to definite kinds of analysis and then to ask whether the analysis stands up when it is freed from its ideological foundation."⁹⁴ As discussed above, it is practically impossible to free analysis of economic problems from their ideological foundations as long as those problems are related to economic reality proper; however, the first part of his statement describes exactly what Mitchell seeks to accomplish. One of the reasons Mitchell considers the establishment of the conditions which gave rise to doctrines more important than a bare statement of the doctrines themselves is because particular problems of the past and suggested solutions may become obsolete and perhaps even irrelevant over time. If one knows what type of problems arise as a result of particular circumstances, then this may

provide an economist with some sort of causal relationship between the circumstances and the theories.

Mitchell, from the perspective described above, employs certain interpretative categories in order to understand the causal relationship between the historical conditions and Ricardo's theories. As discussed in Chapter Five of this study, he attempts to use the environmental factors, social organization of the time, and human nature as three main categories. Because of his emphasis on the circumstantial factors and because of his belief that an interdisciplinary approach to investigation of economic doctrines is needed, Mitchell's approach is sometimes labelled as being relativistic. For example, Blaug calls his approach "the relativistic interpretation in its moderate version."⁹⁵ Relativistic and relativism are often misused and abused terms in describing a certain style of interpretation. In the ordinary sense of the word, all interpretations are relativistic. They are relative to some rule or some standard. The term relativistic is sometimes used to mean "lacking in analytical vigor" or "weak in analysis." This usage is biased too because it assumes preeminence or superiority of a certain type of analysis over others. In the hermeneutic sense, relativistic interpretation is one which says "this is what Ricardo means to me" and "I like to read Ricardo in this way" without making a serious attempt to justify the underlying elements which shaped the vision of the interpreter. Mitchell's version is not of such a type. From the perspective of hermeneutics a better term to describe his approach, we suggest, would be "historical contextualism," since the main purpose of his interpretative discourse is to reconstruct the historical socio-political, cultural context of Ricardo's theories in order to understand the meaning and the significance of his theories as they influence men. There is another sense in which the term "context," used in describing a certain situation, is different than our usage of the term "historical contextualism" here. Gadamer uses the term "context" in order to describe the historical conditionedness of the preunderstandings of the interpreter arising out of the historical situatedness of the interpreter.⁹⁶ This usage is true not only for Mitchell but for all interpreters because each

interpreter's preunderstanding (preconception) is conditioned by the specific position of that interpreter. Since the "context" in which each interpreter operates is subjective, all interpretations remain partial. Gadamer's conception of context, at first glance, seems like an invitation to "relativism" in the sense described above. But in fact this is not so because the interpreter is faced with the task of clarifying his context and defending the appropriateness of his preunderstanding to justify the legitimacy of his interpretation. Mitchell's framework is a historical framework. He seeks to reconstruct the historical context of Ricardo's theories in order to understand them and to establish causality (in a general sense) between specific historical occurrences and circumstances, and the theories economists put forth with all the policy measures attached ("how did men come to believe them"). The interpreter uses his subjective orientations in approaching economic thinkers and historical circumstances of his time. The interpretation is, in short, a subjective process.

In contrast, Schumpeter's interpretation can be called a judgmental-objectivist type. Schumpeter, Knight and Stigler see the task of the interpreter as assessing the truth value of the theories of past economists. Thus theirs is close to what Mitchell called a "right" or "wrong" type of interpretation. In terms of the "moments" of interpretation defined above, their interpretations lack "explanation," and "understanding" but heavily concentrate on "criticism" and "judgment." They "evaluate" Ricardo based on their subjectively formed opinions. They usually do not attempt to justify or reveal the processes of understanding that underlie their opinions. Schumpeter's objectivism is not of the intentionist type. In other words, Schumpeter would consider his interpretations to be objective, not because he believes he has interpreted Ricardo's economics as close as possible to the intended meaning, but because he believes he has judged and evaluated them using an "objective" standard. In this sense, his objectivism differs entirely from the theoretical objectivism in interpretation. The theoretical objectivism insists that in principle the meaning of the text is

in a sense unchanging; that meaning corresponds to what the original author had in mind when he produced his work. It sees the task of the interpreter as being to bring out that one meaning to the surface -- through the barriers of language and changing perceptions, culture, etc. -- making it understandable to present generations. Thus, the absolute standard for adjudicating between the conflicting interpretations is the degree with which an interpretation approximates the intended meaning of the text. It cannot be said that this is what Schumpeter, Knight and Stigler see as the task of interpretation. They are not directly concerned with making Ricardo's meaning clear; theirs is not the type of interpretation which seeks to explain and elucidate Ricardo's principles in their own terms. They do not suggest any rule or method which would facilitate the reading of Ricardo; rather, they are concerned with assessing the "value" of Ricardo's theories. The meaning of the word value changes according to the context, but in general, by value they mean operationality, empirical powers, universality of the principles put forth. The differences in intensity of judgment notwithstanding, they consider Ricardo to be "wrong," and the confidence they feel for their judgments comes from the belief that especially in the case of Schumpeter, they have used an "objective," or "valid" standard of judgment. Thus, for Schumpeter, objectivism means coming up with a style of interpretation which uses criteria, standards of judgement which are objective and free from the intrusions of normative-ideological elements. Because of his overriding concern with the elimination of ideology from economics (the reason his method of interpretation is discussed above), Schumpeter ultimately proposed a standard he called "economic analysis." First, it is shown above that even in most technical systems of analysis, normative elements enter in one form or another (e.g., selection of variables as endogenous or exogenous, etc.) and the "ideologically neutral" quality, although never completely eliminated, may be approached at the expense of lost realism in order to portray and explain economic processes as situations that can be influenced and acted upon. Second, it should perhaps be reemphasized that Schumpeter's

evaluative criteria, "economic analysis," assumes the superiority of certain doctrines and certain modes of investigation rather than proving it.

Although Knight's interpretation is no less judgmental, he does not take nearly as much time and space to justify his standards and criteria. he simply considers Ricardo's theories to be "fallacious," largely because Ricardo lived long before the Chicago School established its own views. A clue to Knight's interpretative styles and his attitude towards the classical economists can be found in the opening sentence to his famous articles, "The Ricardian Theory of Production":

On the assumption that the primary interest in the "ancients" in such a field as economics is to learn from their mistakes, the principal theme of this discussion will be to contrast between the "classical" system and the "correct" views.⁹⁷

This quote contains all the clues one needs about Knight's interpretative style: the purpose of interpretation is to learn from the "mistakes" of the "ancients" and to contrast their systems with the "correct" view. Thus, Knight does not discuss any exegetical rule, or any method which would facilitate the reading of Ricardo, except to learn by contrasting the vision, however unknown its formation, of Ricardo with the known characteristics of the "correct" view. It is perhaps this negative attitude, this readiness to consider all the leading theories of the classical school incorrect that makes Knight's articles on Ricardo extremely frustrating. His articles require a constant effort on the part of the reader to distinguish between 1) the characteristics of Ricardian economics in Knight's view, and 2) Knight's attitude toward these characteristics. There is hardly a sentence about Ricardo's economics which is not followed by a judgment or personal evaluation by Knight. If he did not state his conclusions in the first sentence of his articles, one can assume that he had a preconceived vision and evaluation before he started his investigations. If part of the task of the interpreter is to reveal how certain visions, perceptions and opinions are formed, it is certainly lacking in Knight's interpretations. In other words, the issue is not really

whether or not Knight's opinions are correct or shared by others (which they are), it is the lack of access on the part of the reader as to the interpretative processes through which such opinions are formed. This uniform reticence on Knight's part about his interpretative processes, even though his ultimate identification may be considered "valid" by some and shared by some, gives the impression that he is ready to refuse and controvert particular statements of Ricardo at the first sight without giving them enough consideration. Knight, for example, wrote:

The general position taken more or less explicitly by the writers is that the rate of return in other fields is "determined" by the rate of return on capital used to pay wages in agriculture at the land margin.⁹⁸

Now, of course, the premise of this position is shared by others (such as Sraffa), that at least at one time Ricardo had the theory that farmer's profit regulates the profits in all other trades. As we saw earlier, this issue became especially controversial after Sraffa published his introduction to Works and his book. As is known, Ricardo entertained the idea that farmers profit regulates the profit in other trades prior to the Principles, and in ~~the~~ Principles this idea disappears. Sraffa, who is known to have written very little in general, devoted several pages to this issue and proposed what may have been a "rational foundation" for Ricardo's dropping of the idea. S. Hollander apparently took the issue very seriously and devoted one hundred pages to the genesis of Ricardo's theory of profit because he thought the tracing of Ricardo's thinking process would be profoundly important in the interpretation of all his published works. This issue is whether or not Ricardo had a corn model at one time. If he did, the first relevant question concerns the origins of analysis and the precise nature of the method employed in such a model. Next, interest turns to the reasons for dropping such a model in the Principles and to connections between the logic of the corn model and the logic employed in the Principles. Knight, however, after posing the problem above, wrote in the very next sentence:

But in the first place, and view of determination of a price in one section of a market by the price in another section is indefensible, as the causal relation in such a case is necessarily mutual,

and next Knight wrote:

but secondly, and more importantly, such reasoning is worthless without an explanation of the meaning of a quality capital "in" an instrument which is not a consumable product but has indirect utility.⁹⁹

Knight constantly teaches and constantly tells his readers what the correct view is. With such an omniscient commentator, one does get the impression that Ricardo maintained the idea throughout his career as a political economist. Other finer aspects of Ricardo's Essay and the Principles disappear. For example, the discovery of an interesting and important connection between the technique employed in the Essay and the input-output analyses of the twentieth century becomes an impossibility.

The irritating nature of Knight's review stems from the fact that almost every sentence he quotes from Ricardo receives his "seal of disapproval." However, first, this should not deter one from the recognition that Knight's final statement of the characteristics of Ricardian economics as summarized in his "seven aberrations" is shared by many economists and is assumed to be quite accurate. Second, his brand of interpretation is significant because it represents a certain style and attitude which ahistorically regards past theories as "amazing tissue of inconsistency and irrelevance" and considers only his own views as being correct. Third, in hermeneutic theory, philosophers such as Emilio Betti place great significance to conditions for understanding, attentiveness, open-mindedness and self-effacement. Betti claims that it is essential that a number of obstacles be removed in order that the "other" be received in the right spirit. He lists some obstacles, which seem especially appropriate to mention: 1) "the conscious or unconscious resentment of ideas and positions which differ from the more common ones, and especially from those held by the observer"; this obstacle leads to 2) "their denigration and distortion"; 3) "the attitude of self-righteousness which sees issues in terms of black and white and is unaware of the

dialectic between good and bad"; 4) "the conformism towards dominant conceptions and the pharisaic acceptance of conventional bias in judging others"; 5) "the lack of interest in other cultures, as well as intellectual and moral narrowness or laziness -- which shows itself in the growing tendency to shirk sincere theoretical discussions and an open exchanges of opinion in general."¹⁰⁰ Betti sees the task of an interpreter as the achievement of a hermeneutical understanding of the "other." This necessitates that the interpreter develop an attitude of tolerance which is aided by recognition of one's own prejudices and shortcomings. An interpreter can be aware of his prejudices if he sincerely attempts to understand the others which have to be overcome before successful understanding can take place. In the case of Knight, such an attempt does not appear to be made.

The interpretative style of Stigler is similar to Schumpeter and Knight in that he is predominantly concerned with the assessment of the value of Ricardo's theories. He follows essentially the same judgmental-objectivist approach to Ricardo, even though his tone and his language seem to be muted compared to Knight's. He shares, however, the view in common with the Chicago School that the study of history of economic thought does not contribute to the advancement of the existing body of theory. History may be interesting as an intellectual curiosity, but in general it is safe to assume that "Economics does not have a useful past"¹⁰¹ and an able economist need not concern himself with the history of economic thought.

Stigler, in his interpretation of Ricardo's theory of value (which he labels as a 93 per cent theory), makes the distinction between the "analytical" and "empirical" in the history of economic thought. In his reasoning, "analytical theories concerned with exact functional relations and empirical theories takes into account the quantitative significance of the relationship. Based on Ricardo's admittance of the influences of unequal degrees of capitalization and the consequent modifying principles (using his objectivist standard),

Stigler considers Ricardo's theories to be "empirical," and with an air of sarcasm calls his theory of value a 93 per cent. Thus, in his reviews, the standard with which he judges Ricardo's theory of value seems to be realized in the distinction between the analytical and empirical theories. This distinction however, is not designed solely to convey a theoretical and technical specification of theories. There is an implicit message in such differentiation that analytical theories are universally valid while empirical theories have limited theoretical validity and are as a result somewhat inferior. He makes it clear that the utility theory of value is analytical and universally valid while the labor theory of value is not. In the light of recent developments pointing to the limitedness of the utility theory of value, Stigler's categorization of the utility theory as analytical and universal, and of the labor theory as only empirical and theoretically inferior, cannot be maintained as conclusive. It is an arbitrary interpretative base.

As indicated earlier, Ricardo discussed three different cases: rare goods, agricultural goods, and other industrial goods. He excluded rare goods from his analysis because, in his opinion, they represented an extremely small percentage of total goods (rare wines, old paintings, etc.) Agriculture was the special case in which diminishing returns are operative while in industry constant returns prevail. According to Schumpeter and Knight, the assumption of scarcity would have saved Ricardo's agriculture from being a special case. In other words, the scarcity assumption would have been enough to generalize Ricardo's special case. In the utility theory of value, scarcity is assumed to be true for all goods and the law of eventual diminishing returns (diminishing utility, and productivity) is universally true. As the literature on imperfect competition has shown, diminishing returns under the conditions of perfect competition can no longer be considered the general case.¹⁰²

It is true that Ricardo's admission of the secondary influences presented a problem for the pure labor theory of value. Ricardo, nevertheless, pointed out the systematic patterns that could be extracted; all of which proved to be extremely fruitful analytically for

later theorists.¹⁰³ The capital controversy of the 1960s has shown that neoclassical theory based on the utility theory of value cannot be assumed to be "analytical" in Stigler's sense. The only case where distribution models based on aggregate capital and labor escape the possibility of reswitching is when the capital-labor ratios between the sectors are equal. In other words, with the exception of a case where factor price frontiers are straight lines, reswitching is an analytical possibility. Thus, the very charges that the pure labor theory is confined to cases where "organic composition of capitals" is equal, is also shown to be correct of the utility theory of value. Consequently, it seems there is no justification for entertaining the view that certain theories are applicable to all circumstances and constitute universal truths, while others are confined, inferior, and empirical.

In an article published in 1965, Stigler posed a problem: "which passages in a man's writings do you accept when several passages are inconsistent?"¹⁰⁴ He pointed out that in the case of conflicting passages one has to give heavier emphasis to one passage over others. A textual interpretation, Stigler wrote, "must uncover the main concepts in the man's work, and the major functional relationships among them. The interpretation need not account for careless writing or unintegrated knowledge." In order to decide between conflicting interpretations he suggested a "rule":

The test of an interpretation is its consistency with the main analytical conclusions of the system of thought under consideration. If the main conclusions of a man's thought do not survive under one interpretation, and do under another, the latter interpretation must be preferred. (The analogy to maximum likelihood is evident.)... This rule of consistency with the main conclusions may be called the principle of scientific exegesis.¹⁰⁵

In addition to this rule Stigler points out another situation, or another type of interpretation:

one may seek to determine what the man really believed, although this search has no direct relevance to scientific progress. One will then invoke a different criterion to choose between conflicting passages: that interpretation which fits best the style of the man's thought becomes decisive. This may be called the principle of personal exegesis.¹⁰⁶

After putting forth these two rules, Stigler takes on the problem of whether Ricardo had the assumption of zero demand elasticity or substantial elasticity. He then shows that Ricardo's "main theorem" on economic progress, the natural tendency of profit to fall, is made more rigorous with the assumption of zero elasticity and would also fit Ricardo's style of using simplifying assumptions. Thus, he concluded that this interpretation should be chosen on the grounds of both scientific exegesis and personal exegesis.

It is not often that an economist comes up with exegetical rules as significant as those suggested by Stigler and makes explicit use of them in his interpretations. Even though Stigler ended up using the two rules in a complementary way, he suggested them as pertaining to two different types of interpretation. First we should point to two confusions concerning the rule of personal exegesis. Personal exegesis or what the author meant is initially suggested by Marshall, as seen above, is a much more common criteria than Stigler is ready to admit. He wrote that the search for the author's meaning has no direct relevance to scientific progress and thus the main criterion to be used should be his principle of scientific exegesis. Is the author's meaning as an interpretative criterion really insignificant and irrelevant to scientific progress as claimed by Stigler? If so, why did he use it despite its irrelevance? Hermeneutical problems associated with the process of discovering the authors intentions aside, it should be stated here that none of the interpreters included in this study, including Stigler, would admit that their particular interpretations do not reflect what Ricardo intended to convey, yet at the same times still be a "good" interpretation. As we saw above, the authors' meaning -- Ricardo's meaning in this case -- came to be regarded as the theoretical basis for a major competing schools and vice versa; that is, different schools interpret the author's meaning differently. The significance attached to Ricardo's meaning sometimes shows itself in the form of mustering the intellectual authority of Ricardo for a particular theory. The most hotly contested debates are about Ricardo's meaning. Thus, Stigler's professed understatement of personal exegesis conceals an important hermeneutical problem. This is that interpreters often legitimize their

interpretations by claiming implicitly or explicitly that their interpretations reflect the author's meaning. From the point of interpretation per se, the issue is not whether personal exegesis contribute to "scientific progress" but whether the author's meaning should be used as a vehicle for the validation of interpretations? The fact that Stigler, despite his understatement of the rule, used it shows that it is widely used and this represents a major problem for hermeneutics. The second point concerning his rule of personal exegesis is that in terms of Stigler's own definitions of these two rules, the perception of the style of author by the interpreter may help him indentify what the main tenets of his system are. Biographical and historical information may be very useful in determining the "net scientific contributions" of the author, since "analytical" contributions of economists do not arise in a vacuum.

As far as Stigler's rule of "scientific exegesis" is concerned, one should point to the usefulness of such a rule in checking the internal consistency of one's own interpretation. In other words, if the interpreters' own perception of the "main" theoretical and analytical conclusion of a man's thoughts do not survive under the interpretation that indeed points to a serious inconsistency in that particular interpretation. However, as a "scientific" exegetical rule to be used to adjudicate between two conflicting interpretations it runs into serious problems. There may be serious differences as to what constitutes the person's main theoretical and analytical conclusions. Therefore an unambiguous application of this rule in adjudicating between two conflicting interpretations would be dependent upon an unambiguous determination of Ricardo's "main conclusions," which are the very items under dispute. More explicitly, Stigler considers in his note that the main conclusion of Ricardo is the "natural tendency of profit to fall," whereas Hollander and Sraffa consider the main conclusion to be the inverse relationship between wages and profits. Marx considers the main conclusion to be labor-embodied determination of values, and all of these interpreters would claim that their interpretations are consistent with what they consider to be Ricardo's main conclusions.

"What the author really meant" is a relevant consideration both in the interpretation by Sraffa and Hollander. Sraffa does not propose any explicit exegetical rule to be used in interpreting Ricardo but it is clear that his interpretation is based upon the concept of tracing the development of Ricardo's thoughts as they appeared in his private correspondence and manifested themselves in the changes made in successive editions of the Principles. Thus, what Ricardo "really meant" is a primary consideration for Sraffa. As an editor of Ricardo's Works, Sraffa has the first hand knowledge of anything Ricardo has ever written (and survived to date) and biographical information, including all the persons Ricardo mentioned and associated with, historical and circumstantial information, influential political groups, political ideological struggles of the time, etc. With such knowledge at his disposal, Sraffa attempts to trace the origins of Ricardo's theories of value and distribution. Beginning with his earlier pamphlets to his last draft paper Sraffa tries to reconstruct the logical sequence of Ricardo's theories and to connect his thought processes to the changes he made in the editions of the Principles. In this Sraffa concentrates mainly on Ricardo's theory of value. It is not the scope of coverage of topics or the illuminative powers of his interpretation of circumstantial elements, but the meticulous care and scholarly attitude in supporting everything claimed that may have accounted for the longevity of Sraffa's interpretation. Thus, regardless of the "correctness" or "accuracy" of Sraffa's main interpretative themes, his interpretations (as put forth in his introduction) represent a consistent example of a genre of interpretation which places the author's meanings (as perceived) at the center and moves to topics related to the theory of value without losing sight of Ricardo's meanings. It is perhaps because Sraffa's introductions were written to accompany the Works (unlike his book), most points made represent editorial clarifications or elucidations of circumstantial elements that may influenced Ricardo's theories. Other interpretative themes draw their justification from the quotations supplied from Ricardo's writings.

As far as the importance attached to "what Ricardo really meant," Hollander has a common point with Sraffa. But Hollander's style, which is designed to handle the vastness of his own scope, is very different than that of Sraffa. In terms of the interpretative questions asked, Hollander's interpretation is radically different than other economists included in this study. With respect to the economics of David Ricardo, Hollander asks the following interpretative questions:

- a) What did Ricardo say?
- b) Why did Ricardo express himself the way he did? (Based on what is construed as to what Ricardo said.)
- c) What did Ricardo mean about the issues on which he did not express himself explicitly?
- d) Was what Ricardo said inconsistent with what he did not say? (based on what is construed as what he meant - i.e. (c) above).
- e) What were his real intentions which are not reflected in what he said in his " formal statements?"
- f) Was the economics of Ricardo (construed by (a) through (e) above) consistent and/or inconsistent with the economics of other thinkers and recognized schools of thought as perceived by him using an interpretative process which may not be the same as one used in the case of Ricardo?
- g) Was the economics of Ricardo in contrast with the interpretations by other commentators of Ricardo (as understood and interpreted by Hollander using the same or different logic); and how does the outcome of this process (g) affect the hypothesis implicit in (f)?

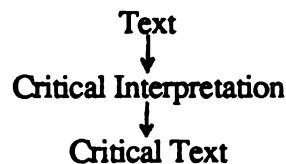
The main reason Hollander utilizes such a complex interpretative method and seeks to answer such difficult interpretative questions is that he wants not only to explain and elucidate Ricardo's principles but to contrast his version of Ricardo with the versions

produced by other economists. The term "contrast" is used here because he generally disagrees with all the leading interpretations. Hollander also wants to compare and contrast his version with the characteristics of recognized schools of thought as he understood them. This is a very difficult task, the outcome of which is much open to controversy. Thus, Hollander's interpretative questions are the direct result of the interpretative task he undertook himself. As mentioned previously, on a "micro" level, Hollander reinterprets several aspects of Ricardian economics using standard neoclassical terminology and asking the interpretative questions (a) through (e) described above. Then he attempts to place Ricardo in context within the history of economic thought, opposing "dual development hypothesis," and the idea of marginalist revolution and transformation. Thus, Hollander covers a wide range of topics in order to support his interpretative hypothesis, which is the substantive identity of the Ricardian and the neoclassical economics. He departs from the proportional representation of subjects and issues covered by Ricardo according to his own interests and makes full use of the diverse writings of Ricardo which were made available in the Sraffa Edition. Hollander also has the distinction of using a broad range of primary sources aside from the writings of Ricardo and the secondary sources in order to support his hypotheses. In the case of contradictory statements, Hollander, without following a uniform rule, assigns priority to certain writings of Ricardo without necessarily justifying the use of such sources, but does not always grant the same freedom to other interpreters.¹⁰⁷ Largely because of the magnitude of his interpretative task, Hollander often feels obligated to rank Ricardo's statements according to their importance and operability within his broader model. He introduces certain classificatory, interpretative devices he himself designed and with the use of such devices as "formal statements" "matters of principle," etc., he tries to maintain a consistent link between his "micro" and "macro" interpretative hypotheses. Because Hollander seems to derive the justification for the use of such classificatory devices from Ricardo's method of using strong cases, we have chosen to discuss the manner in which he put these devices to work in the Section 3

above. As mentioned briefly above, Hollander attempts to discover Ricardo's intentions through the use of his interpretative ranking devices, but his interpretation is not the kind of interpretation that exclusively and consistently concentrates on the question of "what Ricardo really intended to say." As also discussed above, he does not follow a uniform rule about intentions. Hollander follows an intentionalist approach especially in cases where he feels he has to "validate" or legitimize a particular interpretative point he is bringing out by appealing to the force and authority of Ricardo's "real intentions." An example would be the case of his interpretation of Ricardo's "sophisticated demand theory" and the role of his demand theory in the general system of allocation of scarce resources among competing uses. Whereas in his particular interpretation of Ricardo's search for invariable measure of value or the political nature of his theories Hollander does not use known historical facts and the issues (in which Ricardo clearly took side) as the bases of discovering his intentions. In short, the use of multiple criteria enables Hollander to be selective and gives him the flexibility he needs to support his themes.

Having stated that Hollander's interpretation amounts to a restatement of Ricardo in literally neoclassical terms, the following questions present themselves: is there anything wrong with this method, can it be done, and how?

In principle, one is of course free to state any theory in any terms, using any language and any set of tools available. It is the process whereby:



In the case at hand:

- Step 1: A selection from Ricardo's diverse writings
- ↓
- Step 2: Hollander's interpretative processes
- ↓
- Step 3: Hollander's Ricardo

A selection of topics (Step 1) is made according to a subjective criteria ((a) through (e)) and undergoes an interpretative process (Step 2) which is subjective, and the outcome is the critical text. This critical text may or may not have more explanatory powers in solving or explaining certain problems, or it may or may not be "analytically superior" according to some standard. The real question is, however, whether or not one can claim authority and consider this critical text to be "valid" and other interpretations to be "invalid" in terms of its representation of Ricardo. The answer is no. This point is true not only for Hollander's interpretations but for all interpretations. Yet Hollander explicitly claims his interpretations are correct and that others misunderstanding Ricardo. It is precisely this claim which makes his interpretations controversial and "unacceptable" to most economists. A large part of Hollander's book is devoted to criticism of other interpretations, especially of the interpretations by Sraffa, Schumpeter and Knight, in an effort to prove that Ricardian economics (as interpreted by Hollander) is substantively identical to neoclassical economics. It is largely this last purpose that pushes Hollander into using a far-reaching and questionable interpretative technique that leaves him vulnerable to criticism. Hollander's claim that Ricardian economics is identical to neoclassical economics is 1) based upon his belief that his particular interpretation reflects Ricardo's true meaning, and 2) his belief that one can satisfactorily identify one economics system with another and transfer from one system to another.

We have already indicated that this is a very complex problem. Rather than attempting to suggest any solution to how this transformation can be done, we shall point out some of the problems involved in such a task. In order to transfer between the economic systems, one has to be able to transfer economic concepts. In economics, concepts such as utility, scarcity, surplus, wage, value, money, real, nominal, price, profit, margin, etc., are not mere words with predetermined meanings attached to them. These concepts gain life, depth, operationality, and, in short, their meaning with the given economic phenomenon they are assigned to describe or explain. Economic phenomena

cannot be separated from political, social, institutional, environmental contexts. Without knowledge of the nature of economic phenomenon and precise identification about its components, it is impossible to assign the same meaning to the same word. Even a perfect knowledge of the context within which each term gained its meaning may not be enough since knowing is not the same as understanding. The fact that the past is always alien to the present makes the possibility of understanding the past a very debatable issue for the philosophers. A practical difficulty in transferring from one system to the another is that one has to identify what is central from what is incidental in a theory. Hollander attempts to do this by using his classificatory devices. As far as the history of economic thought is concerned, in the process of transference between the economic systems there is always a real danger of committing a "sophisticated sin" of anachronism, by misplacing economic theorists, theories, and tools of analysis in time.

Finally, from the perspective of interpretation itself, the fact that Hollander utilized the same text available to any interpreter of Ricardo, and yet produced interpretations which are widely opposed and controversial brings us to a fundamental question about how a work in economics in general should be interpreted. One is made more aware of the hermeneutical nature of economics, and economics as a hermeneutical discipline. Perhaps this awakening, created by his provocative and stimulating interpretations, should be seen as his greatest service.

Notes

1. For example W.H. Dray cites four significantly different interpretations of the English Civil War and finds the origins of the differences in what each interpreter considers the main cause which started the civil war in England. "Conflicting Interpretations in History: The Case of the English Civil War," Hermeneutics, edited by Gary Shapiro and Alan Sica, The University of Massachusetts Press, 1984, pp.239-257.

2. Ricardo, Works, VIII, p.184.

3. Ibid., p.235.

4. Ricardo, Works, I, p.121

5. Ricardo, Works, IV, p.312.

6. Ricardo, Works, II, p.5.

7. John P. Henderson points out another aspect of Schumpeter's conception of the "Ricardian Vice." It is "the habit of establishing simple relations between aggregates that then acquired a spurious halo of causal importance, whereas all the really important (and, unfortunately, complicated) things are being bundled away in or behind these aggregates." John P. Henderson, "The Malthus-Ricardo Relationship," a paper presented to History of Economic Thought Workshop, Michigan State University, 1986.

8. Marshall, Principles of Economics, 8th Edition, MacMillan and Co., Ltd., 1927, p.833.

9. Ibid., p.508.

10. S. Hollander, The Economics of David Ricardo, University of Toronto Press, Toronto, 1979, p.659f.

11. On "intentions" see for example Steven Mailloux, Interpretive Conventions: The Reader in the Study of American Fiction, Cornell University Press, 1982, p.9 and pp.93-126.

12. S. Hollander, The Economics of David Ricardo, p.138.

13. Ibid.

14. Ibid.

15. Ibid., p.645.

16. Ibid., pp.11-12.

17. Ibid., pp.300,302,304,306,284,270,271,etc.

18. See Chapter Eight above.

19. W.C. Mitchell, Types of Economic Theory from Mercantilism to Institutionalism, edited by Joseph Dorfman, Augustus M. Kelley, Publishers, 1950, p.293.

20. See Warren J. Samuels, "Ideology in Economics," in Modern Economic Thought, edited by Sidney Weintraub (Philadelphia: University of Pennsylvania Press, 1977), p.467-84, especially p.470 and p.472.

20b. For alternative definitions of ideology see for example, *Ibid.*, p.470.p.

21. Schumpeter, History of Economic Analysis, p.41.

22. See above "W.C. Mitchell on Ricardo," Footnote 26.

23. Ricardo, Works, IX, p.392.

24. Marshall, Principles of Economics, p.587.

25. *Ibid.*, p.588.

26. Schumpeter, History of Economic Analysis, p.7.

27. *Ibid.*, p.39.

28. *Ibid.*, p.41.

29. *Ibid.*, p.42.

30. *Ibid.*, p.43.

31. See F. Machlup, Methodology of Economics and Other Social Sciences. (Academic Press, N.Y. 1978, p.466.)

32. M. Dobb, Theories of Value and Distribution Since Adam Smith (Cambridge University Press, Cambridge, 1973, pp.7-8.)

33. In total admiration, Schumpeter wrote: "From the workshop of Walras the static theory of economic universe emerged in the form of a large number of quantitative relations (equations) between economic elements or variables... that were conceived as simultaneously determining one another. This great feat had been accomplished as soon as this Magna Charta of exact economics had been written... a type of research began to impose itself that had been unknown in pre-Walrasian economics." (History of Economic Analysis, pp.967-68.)

34. For a discussion of "Ideal Types" and for the origins of the term in the writings of German philosophers (Max Weber) and social scientists and historians (which go back to the 1880's) see for example F. Machlup, The Methodology of Economics and Other Social Sciences, pp.207-281.

35. W.J. Samuels, "Ideology in Economics," p.472.

36. S. Hollander, "Economics and Ideology: Aspects of the Post Ricardian Literature," Literature of Liberty, Vol. 2, No. 3, July-September 1979, p.5.

37. *Ibid.*, p.7.

38. Stigler, "The Review of The Economics of David Ricardo," Journal of Economic Literature, Vol. XIX, March 1981, p.101.

39. Warren S. Gramm, "The Selective Interpretation of Adam Smith," Journal of Economic Issues, Volume XIV, Number 1, March 1980, p.119.

40. Joan Robinson, Collected Economic Papers, Volume IV, Basil Blackwell, Humanities Press, N.Y. 1973, p.268.

41. Ricardo, Works, I, p.31.

42. Marx, Theories of Surplus Value, International Publishers, N.Y., 1952, p.211.

43. For an interpretation of Marx's criticisms of Ricardo see Ian Steedman, "Marx on Ricardo," in I. Bradley and M. Howard (eds.), Classical and Marxian Political Economy. Essays in Honour of R.L. Meek, London: MacMillan, 1982, pp.113-156. Steedman argued that Ricardo really had a cost of production theory of value and Marx "misunderstood" Ricardo. Marx also misunderstood Ricardo in his criticism that Ricardo ignored constant capital. Steedman claims that Ricardo made use of the concept of Fixed Capital; their differences were essentially definitional in character. Further, in Steedman's view, Marx was "wrong" in attaching so much importance to labor theory of value anyway. Values, value of labor-power, the whole labor theory of value are "completely irrelevant" in the determination of profit. This is essentially the same thesis advanced in his book, Marx After Sraffa.

44. Ricardo, Works, VI, p.104.

45. K. Bharadwaj, "The Subversion of Classical Analysis," pp.253-271.

46. Ricardo, Works, I, p.11.

47. A. Marshall, Principles of Economics, p.16.

48. Ibid., p.17.

49. Ibid., p.14.

50. Ibid., pp.18-23.

51. Ibid., p.339.

52. Ibid.

53. G.F. Shove, "The Place of Marshall's Principles in the development of economic theory," Economic Journal, December, 1942, p.306. The same passages is quoted in K. Bharadwaj, "The Subversion of Classical Analysis," p.267.

54. Marshall, Principles, p.124.

55. Ibid., p.141n.

56. See Footnote 40 of "Marshall on Ricardo" above.

57. Sraffa, Production of Commodities by Means of Commodities, Cambridge University Press, Cambridge, 1960, p.v.

58. See J. Eatwell, "The Interpretation of Ricardo's Essay on Profits," Economica, May 1975, p.187 n.ii; Alessandro Roncaglia, "Hollander's Ricardo," Journal of Post Keynesian Economics, Spring 1982, Vol. IV, No. 3, p.351; Sraffa, Production of Commodities by Means of Commodities, pp.v-vi, etc.

59. Sraffa, Production of Commodities by Means of Commodities, p.vi.

60. G.C. Harcourt, Some Cambridge Controversies in the Theory of Capital, Cambridge, 1972, p.8 and p.178.

61. Hywel G. Jones, An Introduction to Modern Theories of Economic Growth, McGraw Hill, 1976, p.141.

62. P. Sraffa, Production of Commodities by Means of Commodities, p.93.

63. Sraffa, Works, I, p.xxxi.

64. G.C. Harcourt, Some Cambridge Controversies in the Theory of Capital, p.15.

65. Sraffa, "Rejoinder," Economic Journal, XL, 1930, pp. 89-93, especially p.93.

66. Sraffa, Production of Commodities by Means of Commodities, p.vi.

67. G.A. Caravale, "Preface" to The Legacy of Ricardo, ed. by G.A. Caravale, Basil Blackwell, Oxford, 1985, p.ix.

68. Marshall, Principles of Economics, p.811.

69. For a discussion of such differentiation see David Couzens Hoy, The Critical Circle. Literature, History and Philosophical Hermeneutics, University of California Press, Berkeley, 1978 pp.11-40, especially pp.13-16.

70. F.D.E. Schleiermacher, Hermeneutics: The Handwritten Manuscripts, edited by Heinz Kimmerle, translated by James Duke and Jack Forstman, American Academy of Religion, Scholars Press, Missoula, Montana, 1977, p.112.

71. Ibid.

72. Ibid., p.113.

73. Ibid., p.116.

74. Ibid., p.84, emphasis added.

75. Ibid., p.83, emphasis added.

76. Marshall, Principles of Economics, p.817.

77. Ibid., pp.348-349.

78. Ibid., p.814.

79. Ibid., p.816.

80. Ibid., p.814.

81. Ibid., p.163.

82. Ibid., p.154.

83. Ibid., p.834.

84. Ibid., p.508-509.

85. W.J. Ashley, "The Rehabilitation of Ricardo," Economic Journal, Vol. 1(3), September 1891, pp. 474-89; reprinted in David Ricardo: Critical Assessments, Vol. II, edited by John Cunningham Wood, Croom Helm, London, 1985, pp.8-20. (Reference is made to the reprint, p.19.)

86. Krishna, Bharadwaj, "The Subversion of Classical Analysis: Alfred Marshall's early writings on value," p.269.

87. Alessandro Roncaglia, "Hollander's Ricardo," p.344.

88. W.C. Mitchell, Types of Economic Theory, p.4.

89. Mitchell approves Allyn A. Youngs' statement that "economics has been a study of human behavior" and adds "whether economists recognize the fact or not." Backward Art of Spending Money, p.223n67.

90. Mitchell, Types of Economic Theory, p.31.

91. Ibid., p.32.

92. Ibid., p.5.

93. Ibid., p.7.

94. Mark Blaug, Economic Theory in Retrospect, Richard D. Irwin, Inc., Illinois, 1968, p.6.

95. Ibid., p.3.

96. See for example D.C. Hoy, The Critical Circle, p.70.

97. K.H. Knight, "The Ricardian Theory of Production and Distribution," The Canadian Journal of Economics and Political Science, Vol. I, Feb-May 1935, p.3.

98. Ibid., p.195.

99. Ibid.

100. Quoted by Josef Bleicher, Contemporary Hermeneutics, Routledge & Kegan, Paul, London, 1980, pp.34-35.

101. G. Stigler, "Does Economics Have a Useful Past," History of Political Economy, Fall, 1969.

102. P. Sraffa, "The Laws of Return Under Competitive Conditions," The Economic Journal, Vol. XXXVI, 1926.

103. See for example J. Robinson, The Accumulation of Capital, MacMillan, 1969. Robinson points to similarities between the pattern shown by Ricardo and the "Positive Wicksell Effect." It is also known that discussions of Bohm-Bawerk and K. Marx have been inspired by the relationship between prices and the organic composition of capital. This also represented one of the themes in the famous capital controversy of the 1960s and 1970s.

104. G. Stigler, "Textual Exegesis as a Scientific Problem," Economica, XXXII, Nov. 1965, p.447.

105. Ibid., p.448, emphasis added.

106. Ibid., emphasis added.

107. See Chapter Eight above.

CHAPTER ELEVEN: HERMENEUTICAL SIGNIFICANCE OF MULTIPLE INTERPRETATIONS

I. WHAT IS HERMENEUTICS:

Merely to define hermeneutics to everyone's general satisfaction is difficult. Different hermeneutic schools define hermeneutics differently to reflect their particular understanding and the philosophy of the discipline. The term hermeneutics is derived from the Greek word Hermeneuein, generally translated "to interpret." Hermeneuein derives its meaning from the Greek god, Hermes, who is given the function of translating and transmitting the message of gods to human beings. The message is presumed to be beyond human understanding, thus, the task of Hermes is to put this message into a form human beings can understand. Accordingly, Hermes is also associated with the discovery of language and writing. It has been remarked¹ that the god (Hermes) who invented language and writing could be called an interpreter but also a thief, a liar or a contriver because words have power to reveal, conceal and twist meanings.

In seeking the mythological and etymological origins of the term hermeneutics, one discovers valuable clues about the nature of interpretation. Hermes' function was to communicate the message of the gods, so it is safe to presume that he had to understand the message himself to make it understandable to mortals using speech, mimic, drawing or writing as mediums of communication. Secondly, the task of Hermes (interpretation), involves saying or asserting or expressing this message. The third direction of the meaning of hermeneutics is to explain. Words not only say something but also explain, in an attempt to make a message clear. Thus, explanation must be seen as a dimension of interpretation. Interpretation takes place when the interpreter turns toward an object. The selection of the tools of analysis used in explanation is already an interpretation. The very act of analysis is an interpretation; so is feeling the need for such an analysis. Finally, the technical aspect of Hermes' task was to put an essentially incomprehensible message into a comprehensible form: translation. Translation should be understood not only as being

between languages but also as being within the same language of the text. The translator then mediates between two different worlds. Even the most mechanical translators have to be aware of the fact that the meaning(s) of the words are shaped by one's view of these different worlds. Thus, hermeneutics is the theory and/or philosophy of interpretation; and interpretation is the act of asserting, explaining, and translating forms in order to make them understood.

Richard E. Palmer gives six definitions² of hermeneutics which reflect the chronological changes that took place in the discipline. The hermeneutics has been interpreted as: 1) the theory of biblical exegesis; 2) general philological method used in textual exegesis; 3) the science of all linguistic understanding; 4) the methodological foundation of human sciences (*Geisteswissenschaften*); 5) phenomenology of existence and of existential understanding; and 6) the systems of recollective and iconoclastic interpretation used by man to reach the meaning behind myths and symbols. Each interpretation of hermeneutics reflects the changing nature of the problem of hermeneutics. We shall briefly cover different traditions emphasizing the theories and philosophies of the most influential contributors.

The origins of literary interpretation go back to the Greeks where the techniques used assisted in the interpretation and the criticism of Homer and other poets. However, Hermeneutics as a separate discipline is assumed to have been established by a German theologian F.D.E. Schleiermacher in his handwritten manuscripts (1805 through 1833) entitled appropriately "Hermeneutics." Some important philosophers who contributed to the foundation built by Schleiermacher are M. Heidegger, E. Husserl, Bultmann, W. Dilthey, Emilio Betti, E.D. Hirsch, H.G. Gadamer, D.K. Apel, J. Habermas, J. Derrida, P. Ricoeur et al. Perhaps because the primary sources are in German, hermeneutics remained little known in English-speaking countries until the mid 1960s. Thereafter, translations and treatises appeared in English-speaking countries as well. Today, in investigating different approaches, there is a real danger of getting lost in obscuring and

confusing terminology created by competing schools. The debates between competing schools seem to be carried out in a sharply critical and esoteric tone. The traditionalists are challenged by deconstructionists, intentionists by anti-intentionists. Formalists are accused of being puritanical, anti-formalists are accused of being nihilist; both are accused of being fascists; structuralists, post-structuralists, communicative interpreters versus free-players; expositionists versus verdictivists. Advocates of interpretative determinacy are accused of being authoritarian where as the followers of indeterminacy are escapists; sequential interpreters versus holistic interpretations. Again, charges "solipsist" and "relativist" emerge from one side and "elitist" and "reductivist" emerge from the other. Hermeneutics, as established by Schleiermacher and developed by Heidegger, Betti Gadamer, Habermas, Derrida et al. is worth "owning." Sharpness of the language with which the debates are carried out indicates the extensive nature of the stakes involved, which will become evident as we proceed. Keeping in mind the uselessness of uncritically supporting one tradition and dismissing another, we shall briefly investigate the evolution of hermeneutics from a philological method of textual exegesis (especially made applicable to theology and law) to a philosophy of understanding applicable to all areas of knowledge. The evolution of hermeneutics shows that the emphasis of the discipline has shifted from the establishment of interpretative canons, which are sets of exegetical rules and techniques (leading ultimately to determinacy of meaning), to the emphasis on the very nature and logic of understanding (leading to indeterminacy of meaning). Thus, such evolutionary study produces two main approaches to hermeneutics.

II. THE ORIGINS AND THE EVOLUTION OF FORMALISM:

Even though the driving motive behind Schleiermacher's efforts was to provide a set of exegetical tools with which the scriptures can be unambiguously, scientifically and objectively interpreted, when his overall hermeneutical program is taken into consideration,

his writings exhibit valuable insights for diverse schools. He is considered to be the father of hermeneutics. Schleiermacher described hermeneutics as the general theory of understanding and stated that such a doctrine of art or technique "exists insofar as its rules form a system based directly on clear principles drawn from the nature of thinking and language."³ Schleiermacher sees two aspects of hermeneutics continuously interacting in interpretation: the psychological and the grammatical interpretations. Psychological interpretation regards the language as a means by which a person communicates his thoughts, and the grammatical interpretation is used in clearing away linguistic difficulties involved in understanding the message of texts. The emphasis on the psychological interpretation is supported by Schleiermacher's belief that the text should be viewed ultimately in reference to the original author and his circumstances, and not to the present interpreter. Grammatical interpretation recognizes the fact that the message which connects the original author to the interpreter is transmitted via the use of language. Schleiermacher's emphasis on language later became a motto for the structuralist school which declared that it is the language which speaks, not the author. Schleiermacher believed, however, that both aspects should be applied to every interpretation but they will always be weighted differently depending upon the type of text involved. Depending on the dosage of these two aspects, Schleiermacher differentiates between historical, allegorical, and technical interpretations. Historical interpretation is, for him, a means for re-creating the relationship between the original author and the original audience. In establishing such a relationship, an interpreter should be armed with an extensive collection of historical data and should make a genuine effort to understand the historical circumstances. Thus, historical interpretations require a higher dose of the psychological component. Allegorical interpretations deal with the allusions involved in a text. An effective way to deal with allusions is made possible by a sound knowledge of the author's train of thought, as well as an ability to overcome technical barriers presented by the use of language; so both aspects (psychological and grammatical) are needed. Technical

interpretations predominantly deal with the technical problems of language and require a higher dose of the grammatical aspect of interpretation. Schleiermacher generally sees the historical particularities as an agent assisting in the process of understanding, not as a cause of denial of the primacy of language: "one must try to become the immediate reader of a text in order to understand its allusions, the atmosphere, and its special field of images."⁴ Schleiermacher did not elaborate on the "mysterious process of understanding" in the way Heidegger and Gadamer did, but it appears he always kept this process at the center of his thinking. It was a mysterious phenomena, a special, self-enclosed process based on its own laws. Despite this awareness of the subjectivity of understanding, his emphasis on the philological interpretation, using a set of interpretative canons and his emphasis on the primacy of the author's meaning put him close to the formalist school (the determinacy of meaning). In addition to his canon emphasizing the primacy of the author's meaning, another one of his canons had far reaching impact on the later schools: the totality of meaning, which later came to be known as the famous "hermeneutic circle."

Before discussing these two canons and their impact, we should reiterate the similarities between certain exegetical rules used or suggested by the interpreters included in this study (e.g., Marshall, Stigler et al.) and the canons put forth by Schleiermacher (143 canons are included in his book). Several of these canons are already mentioned above. There is one theme that has often come up in the interpretation of Ricardo's economics and it concerns the problem of assigning priority to certain writings over others in the case of conflicting meaning. Stigler, for example, accused Hollander of making excessive use of Ricardo's letters and parliamentary speeches over his Principles.⁵ Blaug⁶ and O'Brien⁷ shared the same criticism. Stigler claimed that letters and the unpublished writings should carry less authority than the published work because they contain transitional arguments which the author may have changed later. Schleiermacher, too, distinguishes between the "major" and the "secondary" thoughts and states that the failure to distinguish between them causes "both qualitative misunderstanding of the contents of a work and quantitative

misunderstanding of its tone." He believes that the statements are related both to each other and to the unity of the discourse. On both levels one faces the situation of distinguishing between the major thought and a secondary thought. "A major thought is a statement made for its own sake. A secondary thought is a statement made to explain something, even though it may be far more detailed than a major thought. Major thoughts are recognized by the concepts which they contain."⁸ He believed that ultimately, the major and the secondary thoughts are to be judged within the linguistic domain of the discourse, in the same way "pleonasm and emphasis are judged." In the process of linguistic determination he suggested the use of context as a supporting argument. For the case of diverse sources, Schleiermacher suggests that different interpretative emphasis should be used: formal texts require more grammatical and less psychological interpretation, whereas "a minimum of grammatical interpretation in conjunction with a maximum of psychological interpretation is applied in dealing with letters, especially personal letters."⁹

A. Author's Intentions:

As mentioned above, two of the most important canons of Schleiermacher are made basic arguments for both the validity of formalism and anti-formalism in hermeneutics. The first one concerns the emphasis placed upon the intentions of the author. As quoted earlier, Schleiermacher states that "a more precise determination of any point in a given text must be decided on the basis of the use of language common to the author and his original public." Since the original public can no longer be found, an interpreter has to re-create the era in which the author lived; his intellectual developments, involvements, the particular use of language all become relevant. All of the elements that make up the author's world are called "the author's sphere." The determination of the sphere common to author should not be seen as part of a preliminary preparation process but must be continued throughout the process of interpretation and is assumed to be completed only when the interpretation itself is concluded. In the determination of the sphere of the author, Schleiermacher proposed several subsidiary canons, such as investigation of the language of the time, study of the

etymology of words, and the author's vocabulary in terms of the living heritage of the language.¹⁰ The living heritage of language includes elements such as dialect, sentence structures, type of language characteristics, metaphors, allusions, etc. In such linguistic reconstruction Schleiermacher finds the study of different genres quite useful. In some cases "several authors may be viewed as one. In philosophy, even the changes that develop within a school may serve as parallels for clarification."¹¹ Thus, genres show the similarities in the art of composition in the organization of thoughts as well as fashionableness of certain ideas and topics. Schleiermacher also makes use of the antithesis of this usage of genre. Mainly, the "author's distinctive use of language must show itself in the modification of the character of the text by which the genre is determined," because "any author who is able to give himself entirely to a prescribed form must not be distinctive."¹² Thus, a good survey of the author's style, his subject matter, his mode of analysis, and his preconceptions about human nature, and a knowledge about genre(s) enables interpreters to distinguish what is conforming (or ordinary) from what is distinctive. Schleiermacher, apparently alluding to Kant's claim that he understood Plato better than Plato himself, concludes that one can only then "understand an author better than he understands himself."¹³ As we shall see below, Gadamer, who represents anti-formalism in interpretation, believes that intentions can not be a basis for "better" understanding and one cannot claim to understand the author's texts better, only differently.

B. Hermeneutic Circle:

The second important canon, which later become both a fundamental principle of hermeneutics and a fundamental means of criticism of the determinacy of meaning in hermeneutics, concerns the relationship between the whole and the parts of the text. It is possible to interpret the canon of the hermeneutic circle, later called by Betti the canon of "totality of meaning," in both a narrow sense and a wider sense.

1. Hermeneutic circle in the narrow sense:

Schleiermacher believes that the goal of technical interpretation is "to consider the whole of the author's work in terms of its parts and in every part to consider the content," and he adds that "the relative distinction between understanding the parts and understanding the whole is mediated by the fact that each part is to be treated in the same way as the whole: the aim, however, can be achieved only by holding these two considerations together."¹⁴ In other words, a text as a whole structure is made up of several parts, each put together with a connecting meaning or a theme. A coherent system is not a meaningless concoction of ideas but is an integrated collection of concepts. Their individual meanings are to be determined by their relationship to the whole. In other words, the nature of partial meaning is dependent upon the nature of the whole meaning to which it belongs, and conversely, partial meanings make up the whole meaning. Thus, in order to understand the meaning of a part one has to grasp the meaning of the whole and the meaning of the whole can only be grasped when the parts are put together. This narrow view of hermeneutic circle provides a consistency check for the interpreter, in a similar fashion suggested by Stigler above. An interpretation of a part of Ricardo's system, say the rent theory, should be consistent with the interpreter's general view of his system as a whole. Conversely, the interpreter's general view of Ricardo's system should not make a large part of his system irrelevant or disengaged. As we shall see below, it is especially this narrow interpretation of the hermeneutic circle that provided a legitimate ground for criticism of the view that an objective interpretation is the one which reflects the intentions of the author, because the understanding of the whole meaning which is necessary for the interpretation of the parts is by definition subjective. In this critical sense, the hermeneutic circle came to be interpreted as enclosing the interpretable object within the interpreters' preexistent belief system. This belief system is necessarily subjective. Therefore, it followed that understanding is a

subjective volition. However, it is clear that when Schleiermacher stated his canon, he also had a wider view in mind.

2. Hermeneutic circle in a wider sense:

It is the relationship between an author's work as a whole and his era: his intellectual, historical circumstances. Schleiermacher wrote that:

the vocabulary and the history of an author's age together form a whole from which his writings must be understood as a part and vice versa.¹⁵

Schleiermacher sees this wider conception of hermeneutic circle as applicable to all knowledge:

Complete knowledge always involves an apparent circle that each part can be understood only out of the whole to which it belongs, and vice versa. All knowledge which is scientific must be constructed in this way. To put oneself in the position of an author means to follow through with this relationship between the whole and the parts. Thus, it follows, first, that the more we learn about an author, the better equipped we are for interpretation, but, second, that a text can never be understood right away. On the contrary, every reading puts us in a better position to understand because it increases our knowledge.¹⁶

In this wider sense an interpreter steps out of the immediate text, uses biographical data, gathers information about the "whole" to which the author belongs, and equipped with such knowledge, interprets the immediate text ("part"). This use of the hermeneutic circle also suggests a consistency check. Certain known historical facts and documented biographical information should not be contradicted in fundamental ways. The relevance of this principle to the issue at hand is that Ricardo's works cannot be abstracted from or made irrelevant to socio-political, economic, institutional, historical circumstances of the time. This is essentially what W.C. Mitchell seeks to accomplish as seen in detail above. Taken both in a narrow and a wide sense, Schleiermacher essentially points to consistency and the totality of meaning as being reliable guides for interpretation.

Many of Schleiermacher's canons and undeveloped insights are developed further by following interpreters. An Italian philosopher, Emilio Betti, made use of Schleiermacher's principles and generalized them to be applicable to all branches of Geisteswissenschaften. Betti claimed that "Hermeneutics as the general methodology of the Geisteswissenschaften"¹⁷ is universal and recognizing the problems of appropriation of the principles of hermeneutics to different branches of human sciences, he saw the principles of hermeneutics as being applicable to all. Betti's principles are now recognized as being especially applicable to law and he has written extensively regarding the interpretation of laws.¹⁸

Betti sees interpretation as a problematic relationship between a perceiving mind and an object. He believes an author, or an object addresses his readers through the use of "forms" and hermeneutics tries to discover and formalize these forms. These forms, through which meaning is transmitted are called "meaning-full forms" (Sinnhaltige Formen). Betti claims that an objective interpretation can be reached through the use of an operation called verstehen. For Betti, verstehen is a form of understanding guided by hermeneutical canons, directed at uncovering the subjectively intended meaning or meaning-contexts.

We commence our interpretative activity whenever we come across perceivable forms through which an other mind, that had objectivated itself in them, addresses to our Understanding; it is the purpose of interpretation to understand the meaning of these forms, to find out the message they wish to transmit to us.¹⁹

In Betti, the "meaning-full forms" are given in a text and they provide a precondition for the objectivity of interpretations. Betti's hermeneutics investigating the meaning of understanding enters the field of epistemology and ultimately he sees understanding as a reconstruction of the intended meaning. A significant aspect of Betti's hermeneutics can be captured by a brief look at his four basic principles.

The first principle is "the canon of hermeneutical autonomy of the object." According to this canon the meaning-full forms contained in a text (which are the "objectivation" of a mind) have to be regarded as autonomous entities and have to be understood in accordance with their own logical development, their intended connections and in their necessity, coherence and conclusiveness; "they should be judged in relation to the standards immanent in the original intention: the intention, that is , which the created forms should correspond to from the point of view of the author and his formative impulse in the course of the creative process."²⁰ Thus, the canon sets a ground rule that the author's intentions should be regarded as the standard of the interpretative process. They are realized with the autonomous logic of development of the meaning-full forms with all relevant and intended connections contained in the text. The canon also implies that the interpreter is to resist any normative impulses and avoid using any standard which may seem relevant to the interpreter but is alien to the intentions of the author. We found this canon to be a variant of Schleiermacher's basic principle of the primacy of the author's intentions.

The second principle is called "the canon of the coherence of meaning (principle of totality)." According to Betti, this canon "sheds some light upon the interrelations and coherence existing among the individual elements of speech, as is the case with any manifestation of thought -- and upon their mutual relationship to the whole of which they are a part."²¹ Thus, this canon again is similar to Schleiermacher's principle of parts versus whole taken in a narrow sense. It is the famous hermeneutical circle. It must be stated that both of these canons are widely used in legal interpretations. The famous doctrine of the "original intent," a strict interpretation of which recently cost a judge a seat on the Supreme Court, is based upon the interpretation of intentions of the law makers when they established laws.²²

The third principle is "the canon of the actuality of understanding." According to Betti, this canon states that

an interpreter's task is to retrace the creative process, to reconstruct it within himself, to retranslate the extraneous thought of an Other, a part of the past, a remembered event, into the actuality of one's own life.²³ Thus, this canon emphasizes the reconstruction of the genesis of a thought, a theory or a system as a whole by recreating the logical process by which a mind perceives a problem or a subject and acts upon it. Among the interpretations included in this study, if our interpretation is accepted, Sraffa's procedure has strong similarities to this principle because Sraffa attempted to establish the genesis of Ricardo's theories and the development of his thoughts. He followed the changes Ricardo made through the use of personal correspondence and socio-political events.

Finally, the fourth principle is the "canon of hermeneutical correspondence of meaning" which states that "the interpreter should strive to bring his own lively actuality into the closest harmony with the stimulation that he receives from the object in such a way that the one and the other resonate in a harmonious way."²⁴ This again seems to say that the interpreter should understand the intentions of the author and sympathize with them, or at least try to remain neutral. Thus, in the writings of Betti, *verstehen* appears as sympathetic understanding. The importance of understanding in interpretation is not disputed by anyone, but this last canon seems to imply that a sound understanding of the interpretable object is contingent upon a sympathetic approach. In other words, using an example from Betti's main area of concentration (law), it is impossible for a jurist to understand why a murderer committed the crime unless he or she sympathizes with and somewhat justifies the reasons for committing such a crime. As far as "sympathy" is concerned, there appears to be superficial similarity between it and Marshall's "generosity." Yet, it is a superficial similarity because verstehen takes the dichotomy between social and natural sciences as real and assumes that erklären (explanation) is relevant to the latter. It is not at all clear that Marshall would readily concede that such a dichotomy exists between the social and the natural sciences.

In an important book, Validity in Interpretation, E.D. Hirsch²⁵ expands the ideas of Schleiermacher and Betti and claims that ultimately, the validity of interpretation rests on the degree with which it approximates the author's intentions.

In his book, Hirsch gives a critique of the hermeneutic school which advocates the indeterminacy of meaning associated with Heidegger, Gadamer and Derrida. His main target appears to be Gadamer's theory of "new hermeneutics" which claims (as we shall see below in more detail), the intention or design of an author is not available. Even if it were available, it may not be a desirable standard of judging the value of an interpretation. It is the language which speaks, not the author. Thus, the meaning of a text is an inexhaustible array of possible meanings which are waiting to be uncovered or constructed. It follows then that no single interpretation could ever correspond to the "meaning of the text." Hirsch finds all of these ideas very disturbing and concludes that the implications of the indeterminacy of meaning invite chaos and are ultimately nihilistic for the science of interpretation. He believes that the importance of texts may change with the passage of time and in different contexts, but there is only one meaning of the text, which is the author's willed meaning, that remains determinate and reproducible. An interpreter should thus try to uncover that particular meaning intended by the author. Hirsch makes a clear distinction between understanding and interpretation, and notes that understanding is "silent" and interpretation is "garrulous."²⁶ He asserts that Gadamer's statement "every understanding is interpretation" is false; understanding always proceeds interpretation. Interpreters, if they want to avoid a major embarrassment," should be able to understand the text before attempting to make it understood by others. The only criterion that should guide the interpreter's understanding of the text is the author's intended meaning. Hirsch claims that the famous hermeneutic circle, which as a critique of objectivity in interpretations came to be interpreted as enclosing the interpretable object within the interpreters' preexistent belief system, can be broken by the correct application of the canons of interpretation, the principles of probability and the correct knowledge of genres.

He thus hopes to establish a linear theory of textual exegesis in order to avoid what Hirsch called a "babel of interpretations" and the author's intentions will provide proper criterion for adjudicating between conflicting interpretations of the same text. At one point, Hirsch concedes that absolute objectivity is not possible but interpreters can reasonably approximate the meaning of historical texts by the correct application of formal methods established by the German Romantic School (e.g., Schleiermacher and et al.), and others who followed the same tradition.

Hirsch's argument that the hermeneutic circle can be broken is based upon his interpretation of Schleiermacher's description of the circle: the relationship of parts and whole. Furthermore, he finds his clues again in Schleiermacher's emphasis of the usefulness of the knowledge of genres. Hirsch's argument goes as follows: Interpretations are probability judgments and the probability judgments are based upon the available evidence. They are correct in relation to known "evidence." Known "evidence" is provided by genres. Genres, for Hirsch, are established and agreed upon conventional characteristics. One can unambiguously differentiate between Victorian poetry and modern poetry. They are the products of two different genres. Hirsch suggests that the "parts" of the text can be checked against the known genres. At this stage he invokes the "class uniformity" principle of statistics that the members of a given population exhibit similar characteristics, and replaces the word "whole" with "genre" and "parts" with "characteristics." If a number of characteristics, say x , fall under genre X and the number of characteristics, y , fall under the genre Y and if $x > y$ then one can conclude that under the principles of statistics (more appropriate, that principles of maximum likelihood) interpretable material exhibits similar characteristics of genre X . This result is objective according to Hirsch. The foregoing arguments is a highly simplified version of Hirsch's argument, but nevertheless captures the essence of his interpretative convention. Several comments and criticisms of this view are in order.

Hirsch starts out with a strong concept of "validity" in interpretations depending upon the interpreter's ability to approximate the meaning of the author, and accordingly an interpretation which succeeds in recreating the meaning of the author is assumed to be objective. He tries to achieve a theory of objectivity in interpretations by developing a counter-argument against the critical version of the hermeneutic circle, using the notion of genres. Hirsch in fact suggests not so much an objectivity in interpretations but a "justification" or "validation" of a given interpretation by appealing to conventionalism in interpretations. Conventionalism manifests itself by the use of genres is a much weaker conception than objectivism. In general, there are good reasons for considering genres. Interpretations cannot exist in a vacuum, and neither can the writings of the original author. Each writer is influenced by the dominant intellectual influences of his time. Genres are a collection of conventional categories which can be stylistic, thematic or analytical (in terms of tools used in presenting or propounding ideas). Conventional literary categories such as Romanticism, realism, symbolism, etc., help to identify genres in which certain categories are used more than others. Genres, however, represent tacit agreements between the practitioners of a given trade. Frederick Jameson notes that genres are "essential contracts between a writer and his readers; or rather... literary institutions which like the other institutions of social life are based on tacit agreements or contracts."²⁷ Thus, it should be underlined that genres are tacit agreements but nothing more. Different genres, or equivalently, different perspectives associated with the different schools impose limitations on the interpreters by bringing certain cultural norms, conventions and styles common to particular works into focus. As explored in Section Five above, multiple interpretations in many ways reflect the differences common to different genres. Having said this, it must be stated that genres may help explain differences in interpretation and they may be seen as a source for multiplicity of interpretation. But they cannot provide logical, objective bases for adjudicating between the conflicting interpretations as Hirsch wants. They cannot be assumed to be absolute, unchanging and determinate by which certain interpretable

characteristics can be measured by or compared to. Thus, the role assigned to genre by Hirsch (a vehicle of identification of characteristics) fails. Furthermore, there are wide differences of opinion as to the basic characteristics of a given school. As we saw above, the differences between the classical and neoclassical schools are very drastic according to Marx and Sraffa, whereas such differences are only superficial in Hollander's view.

If genres cannot be taken as objective institutions, then Hirsch's method of appealing to qualitative probability also remains subjective. It should be noted that the use of maximum likelihood is also hinted by Stigler:

If the main conclusions of a man's thought do not survive under one interpretation and do under another, latter interpretation must be preferred (the analogy to maximum likelihood is evident).²⁸

In this usage, Stigler is not appealing to arbitration of conflict by using genres but is falling into the same kind of circularity by assuming that the "main conclusions" are known or agreed upon. The probability theory as currently taught, is largely quantitative. As pointed out by Keynes, it does not have to be quantitative, it can be qualitative as well:

...there are some pairs of probabilities between the members of which no comparison of magnitudes is possible; that we can say, nevertheless, of some pairs of relations of probability that one is greater and the other less, although it is not possible to measure the difference between them.²⁹

Whether the probability judgment is expressed in terms of numbers or in terms of not such precise magnitudes such as "more," "less," "very," the fact remains that since the reality is partly unknown, probability judgments may be correct in relation to known evidence; yet incorrect as a statement of the unknown reality. In the problem of interpretation, however, oftentimes what is presented as "evidence" is an interpretation. The evidence presented by an interpreter in order to support his interpretative thesis is not neutral. In other words, any evidence (e) perceived as a fact by the interpreter for his interpretation (I) cannot be established independently of establishing (I). Thus, in order to establish (e) as an evidence for (I) one has to establish that (I) is correct. And this is the very problem.

III. FROM FORMALISM TO ANTI-FORMALISM:

As already mentioned, the hermeneutic circle was originally stated as a canon with which the consistency of individual interpretative themes can be checked against the totality of interpretation. With the contributions of Bultman, Dilthey, Betti, Hirsch, et al., the deterministic theory of interpretation claimed that an objective interpretation is possible and the only criterion that assures the objectivity is the author's intentions. The hermeneutic circle is then used as a counter-argument to the claims of objectivity in interpretations. The critique is essentially based upon the reasoning that every interpretation involves understanding and the understanding of the whole is a subjective phenomenon. Every man's understanding is shaped by his own historicity, prejudices, preconceptions and any interpretation starting from this subjective foundation is doomed to be subjective in general. In this connection the hermeneutic circle came to be regarded as simply enclosing the interpretable object within the interpreters preexistent belief system. There can be no objectivity whatsoever because every beginning is already an interpretation. The problem of the hermeneutic circle is by no means confined to literature. It is applicable to any understanding. Accordingly, one can claim that interpreting parts of Ricardo's works or the components of his system (value theory, rent theory, taxation, etc.) is contingent upon a sound grasp of the whole system where pieces are put together in a meaningful, consistent fashion. Yet understanding the whole system is to a large extent subjective, due to the subjectivity of understanding itself. This is then a one to one application of the hermeneutic circle to the problem at hand. Stigler suggests: "we increase our confidence in the interpretation of an author by increasing the number of his main theoretical conclusions which we can deduce from (our interpretation of) his analytical system." Samuel Hollander quite appropriately disagrees with this reasoning. He says "we must in the first place be satisfied as to what precisely constitutes the 'main theoretical conclusions' of a particular

system before an unambiguous application of the rule of scientific exegesis is possible."³⁰ In other words, we must first agree on the main system and then question the validity of other conclusions which we can deduce from this main system. Thus, Hollander's understanding of the whole is different than Stigler's or Sraffa's or a number of other economists'. This really points to the presence of the hermeneutic circle; understanding of the whole is largely subjective.

The issue of subjectivity in interpretations is made more pronounced by influential works in philosophy by Gadamer and Derrida. The roots of Gadamer's hermeneutics go back to Nietzsche, who claimed that "ultimately, man finds in things nothing but what he himself has imported to them,"³¹ and especially to Heidegger. Heidegger discusses the hermeneutic circle very explicitly:

Any interpretation which is to contribute to understanding, must already have understood what is to be interpreted. This is a fact that has always been remarked, even if only in the area of derivative ways of understanding and interpretation, such as philological Interpretation. The latter belongs within the range of scientific knowledge. Such knowledge demands the rigor of a demonstration to provide grounds for it. In a scientific proof, we may not presuppose what it is our task to provide grounds for. But if interpretation must in any case already operate in that which is understood, and if it must draw its nurture from this, how is it to bring any scientific results to maturity without moving in a circle, especially if, moreover, the understanding which is presupposed still operates within our common information about man and the world? Yet according to the most elementary rules of logic, this circle is a circulus vitiosus.³²

Heidegger points out that the hermeneutic circle is only vicious given a certain ideal of knowledge -- the ideal of objectivity. In his denial of objectivity in the human sciences, Heidegger invokes a category which is used later by Gadamer extensively: Historicity of Understanding. It is one of the characteristics of human understanding that it is temporally and historically situated. In Heidegger's view, all understanding requires or presupposes a prior grasp or a vision to use Schumpeter's phrase, of the whole; whether the whole is the whole of the text or an era or a genre. This preunderstanding is inevitably historically conditioned, and it is impossible to suppress historically conditioned subjective

determinants of understanding. Gadamer shares the views of Heidegger on the historicity of understanding and brings new dimensions to hermeneutics. For Gadamer, hermeneutics need no longer be confined to the restrictive area of providing rules and canons for proper interpretation but rather to explain the conditions for the very possibility of understanding. In his writings, hermeneutics become a "philosophical problematic." A part of Gadamer's ontological hermeneutics is devoted to uncovering the constituent elements of the process Schumpeter called the "vision." As will be remembered, Schumpeter admitted rather fleetingly that the "vision" of the interpreter enters at the ground floor of interpretation, but he did not elaborate how this "vision" comes to being or what it really encompasses. Gadamer in a sense investigates this vision -- the preunderstanding -- and suggests that the clues can be found in the historical situatedness of the interpreter. Having investigated the historicity of meaning, he sets himself to explore what is really the hermeneutical consciousness; what the hermeneutically conscious interpretation tries (or should try) to accomplish.

Gadamer's philosophy, or more accurately, his ontological hermeneutics is highly complex and requires a separate, specialized study in itself, which cannot be carried out here. Perhaps the essence of his hermeneutic philosophy can be glimpsed from the title of his famous book Wahrheit und Methode, translated as Truth and Method. Given his analysis of the historicism of meaning, the title is meant to be ironic. The whole tenor of Gadamer's philosophical writings are devoted to pointing out the falseness of the contention that rigorous, "analytically superior," or proper methods guarantee the truthfulness of interpretative enterprises. A Method cannot guarantee Truth. It is possible to capture some of the contributions of Gadamer to hermeneutics by studying briefly his interpretation of the nature of understanding.

A. The Historicity of Understanding.

Gadamer's conception of historicity of understanding is built upon Heidegger's notion of the historical situatedness of the observer-interpreter. His notion of historicity represents a very effective critique of objectivism in human sciences and makes historicity one of the causes of the hermeneutic circle in the critical sense described above. The traditional hermeneutics, as investigated above, consider that the task of the interpreter is to close the distance between a subject and an object by preventing misunderstandings and making a strange text familiar to readers by using a set of pre-established interpretative rules. In contrast, Gadamer claims that understanding is rooted in a historical situation. An interpreter cannot be abstracted from his prejudices and from the tradition he is a part of. Thus it follows that there cannot be a neutral standpoint from which one could see all possible perspectives. Objectivism is not possible simply because interpretation is a historical process. Thus, an interpreter's task is to be aware of the limitations imposed on him by his historicism, his prejudices and to establish a dialogue between himself and the text (which comes into existence only through a dialogue) and develop a hermeneutic consciousness. Objectivism claims that the gap between the past and the present can be closed by an application of methods, whether they be a set of hermeneutical canons or "rules of scientific procedure." This suggests a continuity in human sciences. Hermeneutic philosophy, however, does not aim at securing objectivity through method but in establishing a hermeneutical consciousness. Hermeneutical consciousness points to the limits of objectivity. Awareness of the conditions of initial understanding, or vision, is a part of this consciousness. Preunderstanding is not shaped by the internal characteristics of the text; but is shaped by the tradition in which the interpreter stands, the historical accumulation of previously established interpretations, the fashionableness of certain ideas, methods, as well as interpreter's idealized notions of value and valuableness.

Gadamer's hermeneutics stands in contrast to the approach which takes the author's intended meaning as a standard of interpretation which aims to achieve objectivity. He does not attempt to enter into the historical position of the author by investigating the

intended meaning and the reception of this meaning by the original audience. He sees interpretation as a process which links two horizons. Both the interpreter and the interpretable material contain their own horizons. "The fusion of horizons" occurs when hermeneutical understanding takes place. It should perhaps be mentioned here that hermeneutic consciousness of the time element either in relation to uncovering the intended meaning or in connection to the conception of the "fusion of horizons" goes much deeper than economists' minimalist notion of "logical time." As mentioned earlier in our discussion of Mitchell's and Sraffa's interpretations, economic analyses (e.g., general equilibrium) are conducted in terms of "logical time" and ignore "historical time." The hermeneutic philosophy of Paul Ricouer suggests that one can approach texts diachronically or synchronically. Diachronic time considers phenomena as they occur and develop through history, which is in a sense similar to historical time. Synchronic time attempts to study events of a particular period without the consideration of historical data, which is similar to logical time. Thus, hermeneutic differentiation of the time element helps one to highlight the role of institutions in interpretation as well as in economic analyses. Analyses conducted in terms of logical time take institutions for granted. Institutions, however, cannot be considered to be irrelevant to economic analyses proper. They live dynamic lives, changing and evolving constantly, and are thus capable of invalidating the results obtained by using only the logical time.

B. Hermeneutical understanding of texts is a dialogue.

Hermeneutical understanding of a text is a dialogical process. According to Gadamer, the fusion of horizons comes through a dialogical process between the text and the interpreter. The text poses a question to the interpreter in its historical situation and the interpreter approaches the text with his pre-understandings and his expectations, conditioned by the present tradition in which he stands. In a dialogue, partners are not merely interested in each other but also in the subject matter of the discussion. In other

words, the interpreter, in order to carry on the dialogue, has to be able to find out the question to which a text presents the answer. Understanding that question to which a text presents itself as an answer is realized by the interpreter by himself posing questions and opening up several possibilities of meaning. Gadamer's dialogical understanding includes a process called application. In his view, all these moments of interpretation, i.e., interpretation, understanding, and application are merged together. As we saw, the traditional hermeneutics differentiates between interpretation and understanding and views application differently than philosophical hermeneutics. Betti, for example, recognizes that interpreters sometimes find themselves in a position where they apply certain theoretical results to practical situations. A theologian or an interpreter of law face situations in which general principles have to be applied to individual cases. In this sense, application is a normative extension of objective rules according to Betti. Thus, Betti uses the term "application" in the sense of applied sciences or in applying concepts to practical situations or observations. Gadamer's view, however, is quite different. First of all, he does not differentiate between interpretation and understanding. Every understanding is an interpretation and interpretation includes understanding. Furthermore, he includes "application" as a dimension of understanding. It must be remembered that Gadamer's main purpose is to explain how this mysterious process called understanding occurs and comes into being. It is not part of his search to determine how understanding can be applied. So, for Gadamer, the task is not to try to fit one's formed views into a situation or into a series of observations, but to see what is happening in that situation. That is way we said above that the interpreter tries to understand the question for which the text presents itself as an answer. Once the interpreter sees what is happening in a situation, he then tries to clarify what is to be done about it. For Gadamer, there is no problem of differentiation between an objective or normative application as it was in the case with Betti, since his hermeneutic philosophy represents refusal of methodologically secured objectivity. In terms of interpretations investigated in this study, Gadamer's conception of application

does not imply that an interpreter merely projects his own views on Ricardo. This is definitely not what is meant by application. Yet, in congruence with his general theme, methods cannot secure Truth and he does not propose any rule or canon that would tell the difference between projection and application. Gadamer's conception of application seems to fit more closely to the extensions of Marx and Marshall (in terms of his own contributions), Sraffa (in terms of his book) since it is possible to interpret their theoretical contributions as "seeing what happened in the situations described by Ricardo" and as a part of their understanding "doing something about it."

C. Hermeneutical understanding is a linguistic phenomenon.

Understanding, in the form of a dialogue through which two horizons fuse together, takes place in a language. One of Gadamer's most original contributions is considered to be placing understanding in the medium of language. Gadamer claims that it is not the author who speaks, but the text through which there is a language that speaks. An interpreter understands the text if he can establish a linkage with the medium of language. It follows, according to Gadamer, that a text should not be interpreted with respect to the author's intentions but with respect to the subject-matter contained within the text which addresses itself to us through a language, a medium, and to which we respond with our own words. While Gadamer's insistence on the linguisticity of understanding is seen as his most original contribution to hermeneutics, it would be a mistake to take the meaning of language in a narrow sense. When Gadamer claims that hermeneutical understanding is a language phenomenon, the term "language" should be understood in a much broader sense to include cultural, political or literary tradition, because these traditions present themselves as language and as written texts. Only in this broad sense can his notion of "dialogue" and "fusion of horizons" make more meaningful sense. The fusion of horizons is a language phenomenon in which something is expressed that is not the author's or the interpreter's alone but is common to both. Gadamer's emphasis on the

linguisticity of understanding brings him closer to the hermeneutics of Derrida, who also sees interpretation as an affair of language. Before discussing the hermeneutics of Derrida, it should be mentioned here that any hermeneutic theory which seeks to study understanding within the domains of language needs a close collaboration with a related field: rhetoric. Rhetoric, like hermeneutics, in connection to economics, is a relatively unexplored field. Donald N. McCloskey defines rhetoric very simply as: "exploring thought by conversation."³³ He believes that the language economists use is very metaphorical and badly constructed. It is a language written by a formula for scientific prose. He sees the study of literary rhetoric as a means to provide economists with persuasiveness, without necessarily adopting the language of scientific persuasiveness in the form of statistical-technical jargon, and without questioning the limitations and (in some cases) uselessness of such rhetoric. It must be stated that if interpretation is an art, the success of the artist depends largely on his linguistic competence and his ability to understand the text. Rhetoric helps one to be aware of the possibilities, dimensions and limitations of language, and provides one with a self-consciousness about scholarly arguments. Hermeneutics and rhetoric perhaps require different kinds of competence and they are not the same field, but both hermeneutics and rhetoric require linguistic competence. It is possible to view rhetoric as awareness of the possibilities of language and in that sense it should be used widely in hermeneutics.

D. Deconstructionism

Gadamer and Derrida share a common perspective: the primacy of language and indeterminacy of meaning through the use of "objective methods." Jacques Derrida has been considered to be the founder of a new approach to literary criticism called deconstructionism. Derrida shares many views with Gadamer, but most fundamentally, shares his view that there is no neutral perspective from which other perspectives can be judged. Both oppose the notion of undistorted perception of truth between a subject and an

object as it appeared in the writings of Dilthey and Betti. Derrida thus opposes the conception of objective interpretation with one true meaning. His efforts are directed at showing that single, correct meaning is a myth of the past, and his approach represents an attack on metaphysical assumptions about truth, method and absolute objectivity.

To define what deconstruction is difficult. The difficulty stems partly from the controversial and linguistically difficult nature of Derrida's writings. Derrida's works are considered to be "a translator's nightmare" because he "constantly employs multilingual puns, wordplay and intentional ambiguity (all in order not to produce unequivocal meaning)." Accordingly, judgments about his work range from it being "a set of esoteric jokes" in an "ultimate state of relativism, irrationalism and nihilism" to a "most exasperating... and most precious critique of determinism."³⁴ The intentional ambiguity and deliberate play on words reflect Derrida's position. The following description of Derrida's writings captures the essence of his philosophy:

...[according to Derrida] any statement can function in many contexts, none of which is indisputably the proper one, and that in each context the statement in question will have different meaning. The question of what the statement "really" means, therefore, cannot receive an answer, though the statement can still communicate something definite in each specific context.³⁵

In his last book, The Postcard from Socrates to Freud and Beyond,³⁶ Derrida uses a metaphor he calls "the Postal Principle" to convey the idea that communication proceeds from the sender to a recipient. Just as the Postal Service tries to deliver each and every card to its recipient, the interpreter's task is to make the context of meaning clear so that each "card" finds its recipient. The usual assumption is that every message hits its mark (every card is delivered), but it turns out that there will always be an undelivered message, and that remainder, according to Derrida, "belongs to the structure of the letter to be capable, always, of not arriving."

It is not very clear whether deconstructionism is a branch of hermeneutics or is an alternative to it. What is clear, however, is that deconstruction is concerned with reading. Even though deconstruction does not advocate a method to uncover truth, it may propose alternative reading strategies for all kinds of texts. As far as the task of the interpreter is concerned, its main emphasis is the determination of context of interpretation and the development of an awareness of contextual bias of the interpreter. As expressed by Derrida in the last quotation, there will always be an undelivered post card and that one belongs to the structure of letters not arriving. This concern over alternative readings and the limits of texts allows deconstruction to operate on the domain of the text only, to trace its linguistic structure and its limits.

The changing nature of hermeneutics, in its evolution from formalism to antiformalism, the conceptual differences between the leading theorists on the nature of interpretation and on method suggest that interpretation is a perpetual process of understanding and reconstruction of meaning. Because no two interpreters are of the same cast of mind and no two hermeneutics are exactly the same, we can conclude that the differences ultimately lead to the problem of infinite-regress in interpretation. However, it is possible to outline general characteristics and point to areas of concentration for each interpretation according to which hermeneutic philosophy each particular interpreter considers himself closest to. In other words, some aspects of the process of interpretation which seem so essential to a formalist school may not seem so essential to a deconstructionist. As discussed above, the formalistic tradition places great emphasis on the intended meaning of the original author and the use of canons in the process of uncovering that particular meaning from a variety of sources. One can thus conjecture that the circumstantial elements, historical information, private correspondence and any other document which may be only indirectly relevant to the immediate object of interpretation should be treated as significant sources. A formalistic interpretation proceeds on the basis of canons thought to be suited to the type of text in question (determination of that type is

also subject to interpretation). One has to recall Schleiermacher's distinction between grammatical and psychological interpretations using different sets of canons. A historical investigation plays a greater role in interpretations aimed at uncovering the intended meaning. Antiformalism, with its variations, produces a different type of interpretation. The main concern here is not the author's intentions, historical information about the circumstantial elements which may be used in uncovering the intentions, but the text in isolation. The written text represents the death of the author and speaks for itself. The interpreter tries to establish the context (not the historical but the conceptual context) of the text and tries to establish a dialogue between it and himself. If such a dialogue is in fact established, the interpreter succeeded in linking his horizon with the horizon objectivated in the text. The critical text, which is the outcome of interpretation, carries distinct marks of the interpreter. In this connection, "application," which is unacceptable to an intentionist is quite acceptable to an antiformalist. In fact application is one of the elements of interpretation that helps to distinguish between a "good" and "bad" or "deep" and "shallow" interpretation. Yet no interpretation can be considered "correct" or "incorrect." Formalism, however, considers an interpretation "incorrect" if it does not coincide with what is perceived as the intended meaning of the author.

E. Hermeneutic Philosophy and Logical Positivism:

Hermeneutic philosophy deal a serious blow to the positivistic philosophy of science. The logical positivism originated in the nineteenth century³⁷, although its roots can be traced back in the Cartesian dogmas and Cartesian phenomenology. The first use of the term positivism is attributed to August Comte. Three other analysts are considered to be among the leading contributors: Ernst Mach, Bertrand Russell, and Ludwig Wittgenstein. The works of these philosophers have greatly influenced a group of philosophers known as the Vienna Circle, the founder of which is Moritz Schlick. The Vienna Circle produced their works in the 1920s and 1930s. Very briefly, logical

positivism sought to establish the foundations of empirical sciences. The term empirical is used interchangeably with positivism such that logical positivism is sometimes called logical empiricism. They aimed to establish scientific criteria in order to distinguish between meaningful analytical, tautological, synthetic, metaphysical, etc., statements and in order to clarify the nature of scientific knowledge and method. One of the principles proposed in distinguishing the analytical from the synthetical statements in science is generally recognized to be the principle of verifiability. A scientific statement has meaning if and only if it is verifiable. The process of verification requires testing the statements against "evidence" and assessing its degree of conformity by the evidence. Thus, verification naturally implies testability. The scientific evidence is generally assumed to be observable, and observability implies objective, reproducible experimentations. Through objective and reproducible experiments, in other words, through the observability of evidence, the scientific value of statements can be tested. Logical positivism, therefore, claimed that observability of evidence is the criterion to which all human and natural sciences rely upon. Within the positivistic framework, several extensions and refinements are introduced through the use of hypothetico-deductive models. The hypothetico-deductive models are thought to provide social sciences with a high degree of exactness akin to mathematical reasoning. A social theory assumed to contain a formal structure, with axioms, theorems, lemmas, statements, definitions, etc., and this formal structure is aimed at providing an empirical content. In summary, with the development of hypothetico-deductive models, the general precepts of positivism came to be regarded as: 1) prediction, as an ultimate goal of every social science; 2) observability by reproducible experiments and 3) functionalism as a method.

It is often claimed that logical positivism is no more, that it is a demised, outmoded, and outdated philosophy of the past.³⁸ The interest in hermeneutics should be seen in the light of the outmodedness of positivism in philosophy. There is an obvious connection between positivistic philosophy of science and the methodology of economics. Despite the

growing reaction to positivism in philosophy, the dominant methodology of economics still remains to be inspired by the positivism. "The Official Methodology of Economics is Modernist" and Modernism is the "amalgam of logical positivism, behaviorism, operationalism and the hypothetico-deductive model of science."³⁹ Within this dominant methodology a theory of interpretation is lacking; but, the mere existence of multiple interpretations with diverse methods, and diametrically opposed conclusions show that (as presented by Ricardo example), economics is a hermeneutical discipline. Within this positivistic framework it has generally been assumed that for a "positive science" like economics, "explanation" is relevant, not "interpretation."

Classical and Neoclassical economists saw the economy according to the patterns established in Newtonian-classical physics and mechanics. Writings of classical political economists and neoclassical economists are abound with metaphors taken either from or inspired by classical mechanics, sometimes in close analogy to the planetary system and to clockwork. For example, the view that sees economy as "a closed, autonomous system ruled by endogenous, mutually interdependent factors of a highly selective nature, self regulating and moving toward a determinate, predictable point of equilibrium,"⁴⁰ is clearly inspired by Newtonian physics. When carried to its logical conclusions, Newtonian models saw man as a detached, scientific, objective observer of scientific phenomena. The Theory of Pure Competition is an economic version of Newtonian models, in which individual economic factors cannot influence the market and prices by their isolated actions. In this sense, the individual, (or the observing subject) is detached from the market (the observed object) but can still grasp his object by his reasoning. In other words, an objective reality is subject of natural laws and is comprehensible by human actions. The idea of natural laws is the connection between objects and subjects and the two are united in a scientific understanding. The conception of man as a scientific observer of the processes of the nature permitted scientists to look at events without significantly influencing them. Thus, the assumption of a traditional distinction or dichotomy between the natural and

human sciences have led philosophers (who supported such beliefs) to set forth separate methodological and interpretative axioms for each. Economics was more on the side of natural sciences. Thus, in this vision, "explanation" is the relevant concept for any "value-free" Natur and "interpretation" was for "value-laden" Geist. The vision of man as an "omniscient calculator" looking at the universe from the outside and predicting the future as an exercise in Newtonian mechanics,⁴¹ assumes that the position of man or his state of mind does not alter the phenomena observed.

During the Twentieth Century, scientists had to change their stance. A new Paradigm was developed in modern physics by Werner Heisenberg. His Principle of Indeterminacy implies in microphysics that the influence of the observer on the position and velocity of particles makes it impossible to ascertain both their position and velocity, together.⁴² In other words, subatomic particles under observation will make the influence of the physicist and the instrument he uses significant elements in the phenomena themselves. As a result, the twentieth century physicists have had to change their standpoints: the scientific observer is being recognized as a "participant," not as a mere "observer," taking into account his own influences, reactions on the subject he seeks to understand and explain. The same sort of changes are occurring in other sciences. For example, S. Toulmin mentions that⁴³ in biological sciences every event has at least four distinct aspects and every biologist asks at least four kinds of interpretative questions about that event: biochemical, physiological, developmental and evolutionary. Nevertheless, positivistic vision pervades in the methodology of economics as it is currently understood and practiced. Perhaps a strict adherence to Newtonian physics and statics as a source of inspiration and as a model is no longer there, but an investigation of the introduction and the first two chapters of popular "Principles of Economics" texts would show that positivistic methodologies still dominate economics. Hermeneutic philosophy presents itself as an alternative to methodically secured objectivity in interpretation. It also, especially in the theories of Heidegger, Gadamer, Habermas, Derrida, provides a

perspective for viewing scientific progress in general terms along lines which appear not to be in conflict with the Kuhnsian paradigm-oriented conception of scientific revolutions. This is so because hermeneutic thinking in the writings of Gadamer, Habermas and Derrida is not only a critique of objectivism but it is also a critique of the conception of the unity and continuity of science. It can not be claimed that hermeneutics would resolve all logical and methodological problems found in positivism. But on a very fundamental level it can provide a sound basis for the logic of understanding in human and natural sciences. Hermeneutics can provide consciousness about the weak and strong points of concepts, theories, assumptions and "proofs" which are commonly used.

Notes

1. D.C. Hoy, The Critical Circle, p.1, referring to Socrates' statements in Cratylus.
2. Richard E. Palmer, Hermeneutics, Northwest University Press, Evanston, 1969, pp.33-45.
3. Schleiermacher, Hermeneutics, p.35.
4. Ibid., p.29.
5. G. Stigler, "The Review of The Economics of David Ricardo," Journal of Economic Literature, Vol. XIX, March 1981.
6. M. Blaug, "What Ricardo Said and What Ricardo Meant," in The Legacy of Ricardo, p.8.
7. D.P. O'Brien, "Ricardian Economics and the Economics of David Ricardo," Oxford Economic Papers, Vol. 33, November 1981.
8. Schleiermacher, Hermeneutics, pp.145-146.
9. Ibid., p.100, emphasis added.
10. Ibid., p.46, ("Canon 31").
11. Ibid., p.56.
12. Ibid., p.59.
13. Ibid., p.104.
14. Ibid., p.148.
15. Ibid., p.113.
16. Ibid.
17. Emilio Betti, "Hermeneutics as a general methodology of the Geisteswissenschaften," translation of the original "Die Hermeneutik als allgemeine Methode der Geisteswissenschaften," by Joseph Bleicher in Contemporary Hermeneutics, pp.51-94.
18. Especially his earlier works, Posizioni dello Spirito rispetto all' oggettività, Giuffrè, Milan 1949 and "Zur Grundlegung einer allgemeinen Auslegungs-lehre" in Festschrift für E. Rabel, J.C.B. Mohr, Tübingen, Vol. II are said to contain specific applications to law. See Bleicher p.272.

19. J. Bleicher, Contemporary Hermeneutics, p.29, quoting from pp.42-43 of Betti's Allgemeine Auslegungslehre als Methodik der Geisteswissenschaften, J.C.B. Mohr, Tübingen, 1967.

20. E. Betti, "Hermeneutics as a general methodology of the Geisteswissenschaften," p.58.

21. Ibid., p.59.

22. In 1987, U.S. Supreme Court nominee Judge Robert Borg was accused of strict and inflexible adherence to the "original intent" doctrine. Also note that, Betti in "Hermeneutics as the general methodology of the Geisteswissenschaften" wrote that that canon of totality is used in interpreting explanations and modes of conduct and also legal norms and maxims of judgment: "There is a case concerning the criminal which is conducted in accordance with the postulate of the positive school... This postulate requires that the criminal act under consideration to its symptomatic value for the personality of the culprit as it reveals itself in that act... In the interpretation of legal norms and laws, in cases where interpretations have to be excluded which would conflict with the consistency of a system that has been established, this canon [of totality] is especially applicable... For example, when the application of particular norms derivable from other legal systems -- in accordance with the directives of international private law -- interpretation has to be excluded in so far as it would conflict with the spirit of one's own legal order" (p.60).

23. Ibid., p.62.

24. Ibid., p.85.

25. E.D. Hirsch, Validity in Interpretation, Yale University Press, New Haven, 1967, p.135.

26. Ibid., p.129.

27. Fredric Jameson, "Magical Narratives: Romance as Genre," New Literary History, 7, p.135.

28. Stigler, "Textual Exegesis as a Scientific Problem," p.448.

29. J.M. Keynes, A Treatise on Probability, London, MacMillan & Co., Ltd., 1963, p.34.

30. S. Hollander, The Economics of David Ricardo, p.644.

31. Quoted in Steven Mailloux, Interpretative Conventions: The Reader in the study of American Fiction, Cornell University Press, 1982, p.192.

32. D.C. Hoy, The Critical Circle, p.2., quotation is from M. Heidegger, Being and Time, translated by J. Macquarrie and E. Robinson, (New York, Harper & Row, 1962, p.194).

33. Donald N. McCloskey, "The Rhetoric of Economics," Journal of Economic Literature, Vol. XXI, (June 1983), p.483.

34. Alexander Nehamas, "Truth and Consequence," The New Republic, October 5, 1987, p.35-36.

35. Ibid., p.35.

36. See Alphonso Lingis "The Pleasures in Postcards" published in Hermeneutics & Deconstruction edited by Hugh J. Silverman and Don Ihde, State University of New York Press, Albany, 1985, p.155 and Alexander Nehamas, "Truth and Consequence," p.35.

37. For a brief discussion of the history of positivism as a philosophy see for example Bruce Caldwell, "Positivist Philosophy of Science and the Methodology of Economics," Journal of Economic Issues, Vol. XIV, Number 1, March 1980, pp.53-76.

38. See for example, Anthony Giddens, "Hermeneutics and Social Theory," in Hermeneutics, (University of Massachusetts Press, Amherst, 1984, p.215); Donald N. McCloskey, "The Rhetoric of Economics"; or the majority of articles published in the Journal of Economic Issues.

39. McCloskey, "The Rhetoric of Economics," p.484.

40. Walter Weisskopf, "The Method is Ideology: From a Newtonian to a Heisenbergian Paradigm in Economics," (Journal of Economics Issues, Vol. XIII, No. 4, December 1979, pp.869-884).

41. See Stephan Toulmin, "The Construal of Reality: Criticism in Modern and PostModern Science," The Politics of Interpretation, edited by W.J. Mitchell, Chicago, 1982.

42. See Weisskopf, "The Method is Ideology," p.871.

43. S. Toulmin, "The Construal of Reality," p.104.

CHAPTER TWELVE: CONCLUSIONS

This study investigated interpretations of Ricardo by several influential economists. These economists are generally recognized to be the leading theorists of diverse schools of thought in the history of economics. Thus, their interpretations yielded some views common to different schools. The analysis of this study is carried out in two phases. In Part One, the main concern is with the reconstruction of the interpretations of the selected economists. This part represents our reconstruction of the interpretations and provides the material for the following chapters. Part Two analyzed the individual interpretations and investigated the problem of multiple interpretation and assessed the significance of the problem from the perspective of hermeneutics. Many of our conclusions concerning the individual interpretations are given in the section in which they are examined. Here, we shall point out a few general conclusions about these interpretations and about the problem of multiple interpretation.

Because of his specific position as a colleague and a close friend of Ricardo, Malthus stands apart from the other interpreters included in this study. He had opinions about Ricardo and his "system" and had interacted with Ricardo through discourse, argument and controversy. Malthus' interpretation of Ricardo is not a textual interpretation per se in which an interpreter interprets his object on the basis of what is written in books alone. Malthus' views are colored by his personal knowledge of Ricardo and the specific circumstances of the time. The fact that Malthus "knew" Ricardo very well and Ricardo had valued Malthus' opinions and reacted to them in writing presents us with a uniquely interesting situation. As discussed earlier, the formalistic hermeneutic school claims that the ultimate standard by which an interpretation is judged by should be the degree with which an interpreter approximates the intentions of the original author. For the followers of such an approach, Malthus' views on Ricardo represent a valuable source because it is reasonable to assume that Malthus qualifies in knowing Ricardo's intentions better than

anyone else included in this study. Malthus has shown an acute awareness to the political content and political implications of Ricardo's theories. His awareness of the political problems and the influence of political circumstances on Ricardo's theories suggest for later interpreters the essentiality of the knowledge of historical, socio-political circumstances in understanding the context and the analytics of his system. Malthus did not sympathize with Ricardo's political message and his analysis used in propounding his theories. He considered Ricardo's theories of value and distribution as serving the interests of the capitalist class. Analytically, he thought Ricardo's deductive reasoning and the method of theorizing on the basis of a few select strong variables were essentially unsuitable for the Political Economy as he saw it. It is one of our conclusions that Malthus did not consider Ricardo's method as an abstraction but as an unrealistic representation of reality. It is also our conclusion that Malthus, in his criticisms, accused Ricardo effectively with the idea of the "Ricardian Vice."

Marx also brought the political content and implications of Ricardo's theories to the forefront of his interpretation. He praised Ricardo for starting the investigation of the categories of capitalism from the production process and thereby distinguished Ricardo from Smith. He believed that Ricardo anchored his economic analyses on a solid foundation of the determination of value by labor time and only then moved to the investigation of other categories such as exchange, foreign trade and taxation based on this foundation. Marx, however, accused Ricardo of not carrying out a successful transformation of values into prices and for not having a logically complete theory of profit determination. In Marx we found no suggestion of a formal method of interpretation; his interpretation represents a critique of Ricardo. Marx's extension and his own theories can be seen as part of his interpretation in that he put the labor theory of value to "use" and carried it further into a complete and logically coherent theory of profits. In this sense Marx's interpretation of Ricardo is seen as a draft for his later "applications."

Marshall, in contrast to Malthus and Marx, consciously avoided any political and ideological inference that might be drawn from Ricardo's theories of value and distribution. He underplayed the influence of political elements and events in the formation of Ricardo's theories and avoided discussion of political message that Malthus found in his theories of distribution. Marshall emphasized the allocative role of the rent theory and saw Ricardo's rent theory as being part of a larger doctrine of demand and supply. By concentrating on the intensive cultivation Marshall saw the marginal productivity theory of distribution already present in the writings of Ricardo. Marshall apparently followed an intentionist criteria of establishing what Ricardo meant and used a general concept he called "generosity" as an exegetical guideline. Such uses have led him to conclude that Ricardo's main system sought to establish demand and supply determination of prices of commodities and factors of production built upon the principles of utility and scarcity. It is one of the conclusions of this study that Marshall advocated the use of exegetical rules (such as parallel passages, etc.) which have similarities with those proposed by Schleiermacher but his application of the generosity rule, because of his inability to provide textual support for his claims, and because of the one-sided use into which he put his rule, is objectionable. Marshall's own theoretical contributions, which he claimed to have been inspired by British classical school and Ricardo in particular could also be considered as a part of his "application." However, it is our belief (substantiated by the analysis given previously) that Marshall underplayed the originality of his own contributions and departed drastically, in nature and in scope and in method, from the economics of Ricardo as understood by the author of this dissertation.

Mitchell followed a different approach in that he sought to understand Ricardo's theories in connection with the prevailing circumstances. He placed great emphasis on the illuminative powers of institutional, political, environmental, ideological and circumstantial factors of Ricardo's time. His style serves the purpose of establishing how others came to believe in Ricardo. He does not necessarily label these theories as "correct" or "incorrect."

It is our conclusion that Mitchell's is an attempt at historical reconstruction of the context in which Ricardo produced his theories. This method is designed to serve the more general purpose of establishing a causal relationship between specific historical circumstances and the emergence of economic theories. Mitchell's approach, we conclude, should not be labelled as "relativistic" in the sense of "lacking in analytical vigour" or extreme subjectivism because relativism in the hermeneutic sense advocates subjectivity of interpretations without trying to justify the use of certain viewpoints or frames of reference. Mitchell's historical approach, for which we suggest the term historical contextualism, makes clear that the perspective he uses is historical and attempts to justify the use of such perspective by implying that understanding is essentially a historical process.

Schumpeter, Knight and Stigler believed in the autonomous internal logic of theory and model construction and testing, implying that the absolute meaningfulness or truth value a) can be uncovered and b) transcend environmental and circumstantial factors and c) can thus be used as a basis for judging theories. Schumpeter, in this vein, employed his concept of "economic analysis" as a basis for evaluation and in doing so he interpreted Ricardo from a framework which took the Walrasian general equilibrium system and its technical superiorities as a standard of judgment. Using this standard he believed that Ricardo's theories were consistent but were primitive and misdirected, and should therefore fall outside the domain of scientific economics. Schumpeter did not suggest or systematically follow any particular method that would facilitate the reading of Ricardo, but rather he judged and evaluated Ricardo's economics using a standard which he thought was supra-historical, non-normative and objective. His is an objectivist-judgmental type of interpretation. His concept of objectivity is based on his belief in the objectivity of the standard. In the final analysis, his standard is not free of the intrusions of ideological-normative elements since the very choice of such a standard is itself normative. Furthermore, with the aim of eliminating political and ideological programs from economics he refused methodological individualism which assumed the "rational"

collectivism and thus ignored the influence of groups on individuals, and adapted methodological and "selfish" description of human nature as correct and unchanging. The fact that the assumptions of self-interest and rationality are the foundations of laissez-faire ideology contradicts Schumpeter's ambitions to eliminate ideology from economic analysis. Knight did not explain his standard nor did he try to justify it. Instead, he contrasted Ricardo's economics with what he considered the "correct" view. His interpretation is found to be lacking many elements which are considered to be essential to every interpretation: textual support, consistent use of methods (if any), substantiation of interpretative claims, and understanding as the ultimate goal of interpretation. Thus, from the hermeneutical standpoint, his writings on Ricardo's economics can not be considered to be an interpretation; they are evaluations based on his interpretation. And he did not provide clue as to the underlying interpretative process through which his opinions are formed. Stigler is found to be basically in agreement with Schumpeter and Knight on the general characteristics of Ricardo's theories. He claimed that Ricardo's theories of value and distribution were "empirical." It is claimed in this study that the differentiation of "empirical" and "analytical" theories in the way done by Stigler can no longer be maintained as conclusive; it is based on arbitrarily chosen criteria.

With his edition and his introductions, Sraffa opened up a new era in the Ricardo scholarship. His interpretation is based upon reconstruction of Ricardo's thought processes and reasonings by the study of changes Ricardo made in the successive editions of the Principles. He traced the underlying elements which led to these changes through the investigation of his private correspondence. The interpretation of Ricardo by Sraffa placed Ricardo in a tradition which is dramatically different from marginalism. He presented passages from Ricardo's writings which could be interpreted as showing at least an intuitive awareness of the difficulties which plagued the marginal productivity theory of distribution. Sraffa's interpretations of Ricardo is seen as the continuation of his critique of marginal theory of value and distribution. Hermeneutically, Sraffa's reconstruction of the

genesis of Ricardo's theories and his thought processes is seen within the tradition of intentionalism. His significance and success as an interpreter lay in his consistent use of method and in his success in providing textual support. His own theoretical contributions, which also led to a multiplicity of interpretations of Ricardo, can be seen as "applications" of Ricardo's basic theories (as was the case with Marx and Marshall). This second aspect of Sraffa's reconstruction is seen as a major cause which has contributed to the number and diversity of interpretations since 1960.

It is one of our conclusions that the interpretations by Schumpeter, Knight and Stigler have significant substantive intersections with Sraffa's interpretation (and the interpretations supplied by Cambridge economists) but they greatly disagreed on the analytical and empirical value of Ricardo's theories. The same characteristics seen as "aberrations" by the former group of economists are considered to be strengths by the latter. This alone shows the shortlivedness of judgments about the "correctness" of the analyses of Ricardo.

Hollander's interpretation is found to be very significant in its ability to challenge the consensus which has grown around Sraffa's reconstruction. Hollander disagreed with all previous interpretations one way or another and placed the economics of Ricardo in the tradition of neoclassical general equilibrium economics. It is claimed here that because Hollander sought a global reconstruction of Ricardian economics (rather than concentrating on some aspects of his theories) and attempted to compare and contrast Ricardo's economics with other schools of thought he employed complex techniques of interpretation. His method is based upon the categorization of Ricardo's statements according to their importance and operability using several subjectively designed taxonomic interpretative devices. Within his complex method, he from time to time appealed to Ricardo's intentions as a vehicle of justification and legitimation. But, his interpretation cannot be exclusively considered as intentionalist. It is also our conclusion that Hollander's central thesis, the substantive identity of Ricardian and neoclassical economics

is seriously undermined by his presentation of Ricardo as being disinterested in predictions, and his economics being devoid of empirical, testable, observable consequences. Hollander, however, insulated Ricardo from the critique of marginalism brought forward by Sraffa and the Cambridge economists.

In an effort to answer the questions of how it is possible to have multiple interpretations of Ricardo and how they come about, the following factors are identified:

1) The literary style of Ricardo is seen as a source of some confusion. As Ricardo himself admitted, he was not a master of self-expression. His choice of words and his condensed, terse style, coupled with the fact that the Principles was not written as a textbook with aids and concessions to the reader may be seen as causes for multiplicity. We conclude that while his style may have been a contributing factor, nevertheless it cannot be considered as a significant cause of multiplicity of interpretations.

2) Interpreters of Ricardo did not all work with the same body of material. Sraffa's edition included a considerable amount of new and significant material which provided better access to Ricardo's thought processes and to his ultimate position on the question of value. Among the interpreters investigated in this study only Sraffa, Stigler and Hollander had access to new material. Sraffa and Hollander pay greater attention (than others) to Ricardo's correspondence as sources which reveal the route through which Ricardo arrived at his particular theorems as they were put forth in his Essay and the Principles.

3) The nature of Ricardo's subject matter is complex; its many sidedness permits a variety of interpretations. It is generally recognized that Ricardo dealt with difficult problems of value, distribution of income and economic growth but the degree of success of his analyses varies from interpreter to interpreter. As we saw earlier, income distribution in itself is a controversial problem which is much open to political considerations. It appears that Ricardo wanted to base his analyses of income distribution and capital accumulation on the foundation of value. In this vein he employed a macro

analysis taking income shares as percentages of total output. He was interested in the changes in relative value of commodities when wages change and wanted to hold the deviations of value constant by using a measuring device which was invariable to changes in the price of labor used not only in the production of other goods but also in the production of itself. The inherent and complex relationships between values, prices, labor-embodied, labor commanded, impact of varying degrees of capitalization on the value of different commodities, the impact of income distribution on capital accumulation, etc., are complex problems with many possible extensions. For example, Marshall, based on Ricardo's preoccupation with the question of value and price, viewed Ricardo's theory as being a micro problem of determination of prices of commodities. Malthus was engrossed with the measurement problem and constantly opposed Ricardo's measures claiming that they were not "invariable." Marx applauded Ricardo for his investigation of surplus value but criticized him for not successfully transforming values into prices. Out of Sraffa's interpretation Ricardo appears as an economist who was aware of the difficulties of measurement of capital. Ricardo was puzzled by the observation that changes in the distribution of income between classes affected the size of output. Hollander saw a very complex growth model within the allocation and exchange framework in Ricardo.

Perhaps due to the complexity of the subject matter, Ricardo changed his mind a few times which also contributed to multiplicity of interpretation. For example, he used two opposing definitions for one of the key-variables, the natural wage rate. He introduced his modifying principles to value, and included a new chapter on machinery in the last edition of the Principles. Finally, we conclude that at a very fundamental level, Ricardo left the question of value at somewhat less than a completed state, and could not resolve the invariable measure question to his full satisfaction. He cannot be said to have a conclusive theory of profit in the deterministic sense. All these have contributed to multiplicity of interpretations.

4) Ricardo's method of working with so-called strong cases is seen as a major source of multiplicity of interpretation. The use of strong cases permitted the multiplicity of interpretation as to which variables he assumed to be operative and which variables he held frozen. Assuming that one generally holds the less significant variables frozen in order to prevent distortions, then one faces a major source of multiplicity of interpretation: the relative importance of causes, and the appropriateness of the identified causes. Ricardo's method of using strong cases also resulted in confusions as to whether or not he ever released the previously frozen variables and if so, when. Finally, at a fundamental level, there seems to be disagreement over the general purpose of using such a method. It is not entirely agreed that Ricardo used strong cases as simplifying, temporary pedagogical devices to be relaxed later. Some interpreters claimed that it was his mode of operation. He never released the frozen variables, because he did not have the technical apparatus he needed in order to solve the complex problem he so insightfully set, and in the end he kept factors constant and thus reduced the number of equations to be solved. There are differences between the recognition of a variable, but keeping it constant for the time being and missing the significance of one variable altogether (identification problem in econometrics) and deliberately ignoring the existence of some factors. The use of strong cases gave excuse to interpreters to take the excluded variable(s) either way. For example, Malthus believed that Ricardo ignored the tastes and wants of mankind altogether, and Mitchell claimed he was aware of it but kept them constant.

Whether or not Ricardo assigned dominant role to intensive cultivation has also led to diverse interpretations. Marshall claimed that Ricardo gave prominence to intensive cultivation and thus concluded that Ricardo had a marginal productivity theory of rent. Schumpeter, however, believed that Ricardo dealt with extensive cultivation and was unaware of the principles of utility and scarcity, and thus missed the marginal productivity explanation of rent. Another example is whether or not Ricardo assumed zero demand elasticity as a temporary simplification to facilitate his explanation of the impact of taxes on

corn or he did not give much importance to demand and assumed it to be constant altogether. Was the fixity of natural wages a temporary simplification or assumed throughout?

Interpreters assigned varying degrees of significance to Ricardo's method. Marx, for example, did not argue about the realism or usefulness of such a method; Schumpeter believed the use of such method was necessary for Ricardo and it also improved the consistency of his system; Hollander drew the justification for using his own taxonomic devices from the belief that such a method was congenial with the method used by Ricardo himself. Mitchell acknowledged the use of strong cases as being a method but he believed that it did not affect Ricardo's system when he released the frozen variables.

5) Role of ideological-political-normative elements. One of the most significant factors in the study of the multiple interpretation problem is found to be the role of ideology. We believe that Ricardo's theories are in fact influenced by the current political, ideological circumstances of his time. His analyses carried interrelated normative and positive elements. This interrelationship and balance between the normative context and the positive elements is reflected in every interpretation in different doses and combinations. It is one of our conclusions that the differences in the normative orientation of the interpreters are reflected in their interpretation of what is considered to be normative and what is positive (based on their definitions of normative and positive) in Ricardo. It is also reflected in the differences in their beliefs about the possibilities of separating the normative from the positive, the usefulness of such a separation and the significance of normative context in influencing a positive "analysis." Interpreters' beliefs about the possibility of separation of the normative context from the positive analysis has led them to use interpretative devices or standards of judgment in their interpretations. For example, Schumpeter, believing that such separation is possible, used his conception of "economic analysis" and believed that he had found an objective scientific criterion to assess the value of works in economics. On the contrary, Marx did not make such an effort, he saw the

study of economics as a study of ideology. We conclude that the complete elimination of ideology from interpretations by the use of such standards is an impossibility simply because the very choice of a standard is normative, if nothing else.

In accordance with the totality of their normative orientations interpreters chose to concentrate more on certain aspects of Ricardo and less on certain others. In their interpretations they used particular sets of concepts, notions and tools which reflected their belief systems.

Interpreters attached varying degrees of significance to ideology and to the normative structure as a relevant interpretative consideration. In other words, their ideological consciousness varied, which led them to raise diverse interpretative questions, employ diverse techniques of interpretation and arrive at different conclusions. Malthus, Marx and Mitchell assumed ideology as an interpretative category. Marshall, perhaps because of the fear of giving an unscientific character to his interpretations, chose to underplay the importance of ideology. Schumpeter did not deny ideology as an explaining and explained factor but wanted to eliminate it by the use of methods. Hollander recognized the influence of ideology in the interpretation of others but did not readily admit the ideologically conditionedness of his own interpretations.

6) The Differences of Perspective. Theorists and interpreters brought forward different perspectives through which they examined the same problems from different angles or different problems from the same angle. They brought certain aspects of Ricardo's economics into focus, pushed others into the background and produced analyses, and raised issues. All of these came to be associated with Ricardo. Marx's exclusive concentration on the labor theory of value brought the specific problems of value and connected problem of distribution of income into focus; whereas Marshall's particular analysis of rent theory brought inferences about the allocation theory in terms of marginal contributions being present in Ricardo. Sraffa's interpretation of Ricardo's corn theory of profit in terms of physical quantities of corn and his critique of marginalism and the

similarity between his problems and concepts and Ricardo's own caused economists to place Ricardo on a tradition drastically different from neoclassicism. Within the development of economics certain ideas, issues, and modes of investigation become more fashionable than others. Certain trends appear, while others begin to be considered stale or irrelevant. Schumpeter, Knight and Stigler considered Ricardo's theories irrelevant to the problems, and the dominant mode of investigation of their time. Sraffa found Ricardo's concerns over the measurement of value and especially of capital and his mode of analysis in the form of input-output relevant to economic problems of today. Hollander found close similarity between Ricardo's economics and Walras' general equilibrium scheme. Every new generation of economists feel burdened by the need to reevaluate Ricardo in the light of developments taking place in the field and thus, contribute to the multiplicity of interpretation. Because each interpreter approaches Ricardo from a different perspective, with different motivations and knowledge, and utilizes different sets of concepts, assumptions and tools of investigation, conflict between interpretations seems inevitable. The differences of perspective show the richness inherent in Ricardo's ideas that allow interpreters to approach them from different angles. It also shows that the discipline of economics has reached a point where it is possible to have such differences of perspective. It is one of our conclusions that the interpreters can not claim a monopoly over the meaning of Ricardo and can not consider their perspective "correct" while others are "incorrect." Sraffa's corn model interpretation can be given as an example of the impact of different perspectives and applications on Ricardo scholarship. As shown, Sraffa was not the first economist who saw a corn model in Ricardo, and his particular conjecture about the logic and disappearance of corn model from the Principles occupied only one page. Malthus and Mitchell also wrote about corn model. The full significance of such a method is borne after the publication of Sraffa's book, and the corn model became a very controversial issue. Similarly, it would not be incorrect to state that Ricardo's theory of value became more sensational and controversial after Marx constructed a theory of profit based on labor-

embodied. In this connection one confusion concerning the perspectives seems to stem from a lack of consensus as to the congruity or incongruity of particular theoretical extensions and applications with interpreters own perception of Ricardo's economics. In other words, the same mechanism (i.e., differences of perspective) which causes multiplicity of interpretation of Ricardo's economics is at work when interpreters decide about the characteristics of a particular theory, extension and even a school of thought with which they associate Ricardo's theories.

Interpreters, usually in accordance with their normative, ideological orientations and perspectives ask different interpretative questions and adapt different interpretative techniques. We identified two interrelated issues in connection with different interpretative techniques (as a contributing factor to multiple interpretations of Ricardo's economics): 1) Every interpreter of Ricardo followed an exegetical method(s) in their interpretations. The differences of interpretation is partly due to the techniques of interpretation used. In this sense, exegetical techniques represent a part of interpreters' problematic. 2) There appeared to be a broader problem posed by the fact that it is possible to interpret Ricardo's economics so differently. This is the problem of understanding and interpreting the past and present theories. In other words, using a familiar metaphor, the first issue is a micro one, pointing to differences between the hermeneutics of, say, Marshall and Mitchell as they both yield different interpretative outcomes; the second issue is a macro problem pointing to a need for general hermeneutic consciousness of the act of understanding and interpreting the past and present works. In this study we approached both aspects from the perspective of hermeneutics.

In connection with the first issue we have seen that each interpreter either explicitly or implicitly used a technique or employed certain exegetical canons. Our investigation reveals that there is a great deal of confusion about the meaning and the purpose of the act of interpretation. In most cases, interpreters are found to be careless and inconsistent about the differences between interpretation, judgment, criticism, evaluation and application.

There is no evidence that any of the interpreters consider these elements as component parts of interpretation. This being so, one can assume that they believe theoretically in such differentiation, yet in their actual interpretation, they shift from interpretation to evaluation or judgment without giving warning to the reader, or without changing their technique. This deficiency is found to be common to almost all interpreters but the most dramatic instances are the interpretations by Schumpeter, Stigler and especially Knight. Their interpretations lack an essential component: understanding as the ultimate goal of interpretation. Theirs are evaluations based on subjectively formed opinions. From the perspective of hermeneutics, it is not the substance of Knight's statements that is objectionable but his failure to substantiate his claims and his lack of attempt to reveal the interpretative processes through which he formed his opinions. There is a clear need for either 1) differentiation between interpretation, evaluation, criticism, judgment and application or 2) an explicit declaration that that particular interpreter considers these concepts as components of his interpretative process.

We have found that the majority of interpreters followed a formalistic mode of investigation and claimed that their interpretations are objective. Two trends of formalism appeared: 1) Interpreters claim that their interpretations are objective and scientific because they believe they used an objective rule and employed an objective standard of evaluation. 2) Interpreters claim that their interpretations reflect the intentions of the author (or are in line with what Ricardo "really meant").

In connection with the first trend, we have shown that Marshall, Stigler and Sraffa utilized interpretative canons which have origins that can be found in Schleiermacher and Betti. Marshall suggested the use of "generosity" as a general exegetical rule and utilized few techniques of philological interpretation such as the use of parallel passages in resolving between two conflicting passages in Ricardo. It is not entirely clear what Marshall meant by "generosity" but from the application of this rule we conclude that he made one-sided use of his rule. While he was very flexible in interpreting aspects of

Ricardo's theories with which similarities between those aspects and marginalism constructed, he did not show any flexibility in interpreting other aspects of his writing open to opposite interpretations. It is concluded that the term "generosity" assumes the superiority of marginalism rather than proving it. His suggestion for the use of parallel passages alone in resolving conflict runs into the problem of circularity: if the meaning of one passage is unclear in Ricardo, logically one can not determine a parallel passage. In the case of Stigler, we found that he suggested the use of two significant canons which he called "the principle personal exegesis" and "the principle of scientific exegesis." The principle of scientific exegesis, we conclude, provides an interpreter with a feasible criterion of consistency in that the interpreter's own perception of main conclusions of Ricardo should be consistent with interpreter's general reconstruction. However, this rule as a general, "scientific" principle, capable of adjudicating between two conflicting interpretations runs into problems because it assumes "the main theoretical conclusions of Ricardo" as being given. Sraffa's efforts in tracing the genesis of Ricardo's theories seemed to coincide with Betti's hermeneutic canon of "actuality of understanding." It is one of our conclusions that this canon, by attempting to retrace the creative process of the original author with the help of letters, historical events, and circumstantial "evidence" places the intentions of the original author at the forefront of interpretative process. The perception that objectivity can be accomplished by the use of "objective" and "scientific" evaluation criteria dominated the interpretation of Schumpeter. We have shown that Schumpeter employed a concept he called "economic analysis" in judging the truth value of Ricardo's theories and believed such a tool would eliminate the intrusion of normative and ideological elements from economics. Hermeneutic objectivity cannot be secured by "evaluation" criteria. Schumpeter's conception of "economic analysis" assumes the technical superiority of Walrasian general equilibrium system as a standard of judgment, and in this sense it merges with Marshall's "generosity."

The second formalistic trend is found to be the placement of Ricardo's intentions (or meaning) at the center of interpretation. Almost all of the interpreters included in this study believed or declared explicitly that their interpretation reflects the intention of Ricardo, and the "evidence" they brought forth is in accordance with the historical "facts." Marshall, Mitchell, Schumpeter, Knight, Stigler, Sraffa and Hollander emphasized intentions in one way or another. It must be stated that any interpreter who places great importance on the intentions inevitably faces the following simple question: how can one know Ricardo's intentions? In determining Ricardo's intentions, his personal literary style, his private correspondence, speeches, parliamentary records play a significant role. Thus, an interpreter advocating intentionism is expected to support his claims by direct quotations from Ricardo's formal and informal writings. Such an effort is not made by Marshall and Hollander, for example. As shown above, Hollander justified his use of taxonomic interpretative devices because he believed that such usage accords with Ricardo's intentions. While Hollander's exegesis is clearly dominated by the use of strong cases (as abstractions) he gave no convincing evidence that Ricardo would have appreciated the use of strong cases as one of abstracting from complicating factors.

It should be stated that the consistent use of interpretative canons can improve the internal consistency of an interpretation as a whole, but objectivism as secured by fixed canons aimed at uncovering that one intended meaning runs into serious problems. Specifically, an interpretation explicitly or implicitly following formalist mode should be able to use the canons such an approach requires them to and should be able to provide textual, historical or factual support or logical arguments. Such support is not found in the interpretations of Marshall, Schumpeter, Stigler, and Knight. Marx never attempted to convince his readers that his interpretation reflected Ricardo's intentions. He simply criticized what he understood to be Ricardo's economics. Hermeneutic consistency and awareness of interpretative conventions help to differentiate between a "good" and a "bad" interpretation, not between a "correct" and "incorrect" interpretation. Intentionism, or any

other formalistic approach, should be seen as a systematic school which advocates a certain mode of investigation; they should not be used as vehicles of justification. In other words, appealing to the authority of great economists of the past to justify or objectify a certain subjective viewpoint and to muster enough intellectual support for a forthcoming theory should be seen as the worst kind of hermeneutics: it is a proof by intimidation. As shared by the majority of interpretations included in this study, the meaning of Ricardo and his intentions are indeed relevant considerations for Ricardo scholarship. The usefulness of biographical data can not be denied. The large number of letters, very expertly compiled in the Sraffa Edition, and Ricardo's Notes on Malthus, his speeches, parliamentary evidences point to possibilities for historical interpretations. But the letters, historical documents and other supporting writings of Ricardo have to be interpreted. "Evidence" is never neutral, it is an interpretation. Intentionism, and the use of formalistic methodologies in interpretation cannot secure the objectivity often claimed by the interpreters.

We have shown that the hermeneutic circle is a fundamental principle of hermeneutics. Both in our narrow and wide interpretation of the hermeneutic circle, interpreters are provided with a criterion of consistency. It is the consistency of the totality of meaning given to the writings of Ricardo. An interpreter should not make a large part of Ricardo's writings irrelevant or unconnected and Ricardo's works as a whole should not be made totally alien to his era or his intellectual and historical circumstances. The same principle (hermeneutic circle), however, points to the impossibility of achieving truly objective interpretations. Interpretation is indeed enclosing the interpretable object within the interpreters' preexistent belief system. In this sense, the hermeneutic circle points to the observation that interpretation of the "parts" is contingent upon understanding of the "whole" and understanding is a subjective process; whether the "part" is parts of Ricardo's economics or Ricardo's economics as part of his intellectual, historical time. We argued that Hirsch's appeal to genre as a means of breaking the hermeneutic circle fails. It is one of our conclusions that genres (and somewhat larger but related concept paradigms) are

tacit agreements among the practitioners of a given trade. Thus, reliance on genres as means of breaking the hermeneutic circle is appealing to conventionalism and conventionalism is not objectivism. Furthermore, any evidence presented by the interpreter in order to support his thesis is interpretation, is not neutral. We conclude that arguments about the objectivity in interpretations are misdirected. The task of the interpreter should not be seen as providing truly objective interpretations. Seeking canons and principles in order to provide "consistent" or "deep" or "insightful" interpretations seems to be much more useful than seeking canons that would achieve "objective" and thus truly "scientific" interpretations. The task of hermeneutics is, after all to try to uncover the mysterious process called "understanding."

It is one of our conclusions that Marx's, Marshall's and Sraffa's theoretical contributions can be seen as "application" of aspects of Ricardo's economics. These applications (if need to be evaluated) should be evaluated on their own merits, not on the basis of arguments aimed at uncovering how truthfully or objectively they reflect Ricardo's theories. In other words, rather than trying to transfer Ricardo completely to Marxist, neoclassical or NeoRicardian systems, thereby attempting to strengthen the theoretical or explanatory powers of these systems, it seems more useful to try to understand the processes through which such "applications" are achieved.

Hermeneutic philosophy provides a powerful critique of objectivism in interpretations. Individual problems of interpretation such as consistency or generality of proposed canons, intentions, application, appropriation, understanding, historicism of meaning, hermeneutic circle, etc. can still be discussed and clarified within the hermeneutic philosophy and made applicable to all areas of knowledge in which understanding is the issue. Perhaps the most general and significant conclusion of this dissertation is that economics, as represented by the example of multiple interpretation, is a hermeneutical discipline. This characterization presents itself as an alternative to the dominant

methodology, positivism (in various shades), and other methodology-based objectivistic, deterministic philosophies.

It is commonly stated that understanding Ricardo is a notoriously difficult job. One final conclusion of this dissertation is a personal confirmation of this difficulty and of the interpretations of Ricardo.

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