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ECONOMIC THEORY: ORTHODOXY AND JOHN R. COMMONS

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This paper attempts to present fundamental aspects of the economic theory of John R. Commons by comparing it with that theory usually presented in economics textbooks. The discussion starts with definitions and a general perspective of the Commons' theory and proceeds to examine and compare assumptions concerning economic behavior, theoretical conclusions about reality and usefulness and applicability to economic research problems.

I. INTRODUCTION

Applied to economic phenomena, the social theory of John R. Commons has purposes similar to those of orthodox economic theory: to analyze economic problems and to guide social action in resolving those problems. Beyond this, much of the similarity ends.

The first, and perhaps most fundamental difference between the Commons and orthodox approach to economic problems is the method of logic employed. Orthodox economic theory is largely deductive in nature; a generalized economic relationship, once accepted, is used to formulate further generalizations that are each related to the other by logical deduction. Commons, on the other hand, uses an inductive method of reasoning; a particular economic relationship is generalized after many observations, but it serves only as a temporary guide in the classification and analysis of economic phenomena. The generalizations obtained by this method may or may not form a logically consistent system of generalizations.

To the extent that theory is a system of logically related generalizations, Commons might be accused of borrowing from the deductive method since his generalizations appear to be logically consistent. It is difficult to make this accusation, however, when reading a summary of his thought which may have been prepared inadvertently to show consistency for the purpose of clarity of presentation. This may also be rationalized in that both approaches make some use of both inductive and deductive reasoning, the difference being in emphasis.

Definitions

Commons views the nature of the economy in context of the larger social structure of which it is a part. This is to say then, that the economic theory of Commons is only an interrelated, and not easily defined, segment of a much broader social theory. This contrasts with orthodox economic theory which begins by recognizing and accepting disciplinary divisions of social analysis. This difference becomes more evident when definitions are attempted.

The defining of any area of social thought may be accomplished in several different ways. One may, for example, identify the units of inquiry. Orthodox economic theory, in this manner of definition, would involve the investigation of firms and households, in particular and aggregatively, as they attempt to maximize profits and satisfactions. The unit of inquiry for Commons is what he terms the "organization." This "organization" would include firms and households, but is even broader than these combined. It would include all organizations as we normally think of them in the physical sense, and would also include customs and laws -- any stabilized or regularized relationship between people or between people and things.

Another way of defining an area of social analysis would be to isolate the kinds of relationships that are dealt with. Orthodox economic theory deals with relationships between things or people that can, covertly or overtly and directly or indirectly, be measured by cost or price. Commons' theory does not limit the analysis by defining relationships in terms of cost, but instead defines economic relationships as those which arise between men and things "in the process of exploiting nature and distributing the proceeds by inducements and sanctions." ^{1/} These relationships include cost relationships, but also include legal relationships and those dictated by custom.

Another way of contrasting the economic thought of Commons with the orthodox in definitional terms is by comparing the kinds of problems with which each deal. Accepted economic theory deals with the major problem of allocating scarce resources amongst competing and unsated wants or ends. This inequality of resources and wants is, of course, spoken of as the "law of scarcity," and some orthodox textbooks argue that without it there would be no social science of economics. Commons would disagree with this conclusion because he sees scarcity as only one of the broad problems of economics. While scarcity is important in Commons' view, its elimination would still leave problems of expectations concerning the future, devising and revising of working rules concerning production and distribution, and legal inequalities that could destroy this blissful state. These problems are part of what Commons considers in his economics theory.

^{1/} John R. Commons, "Anglo-American Law and Economics," (mimeo, p. 41, 1926), as quoted by Kenneth H. Parsons, "John R. Commons' Point of View," Journal of Land and Public Utility Economics, (18(3) :245-266, August, 1942). This latter cited article will hereafter be referred to simply as "Parsons."

Defining the method used in solving economic problems is still another way to separate orthodox economics from the theory of John R. Commons. While Commons would undoubtedly accept the rigorous logic employed by economic theorists, he would object to the deductive manner in which they reach conclusions. As suggested earlier, Commons would abstract from reality but would not continue to abstract from abstractions. This is an elemental difference between the two theories.

Yet another way to define an area of economic thought is by indicating the kinds of decisions that must be made in the economy. Orthodox economic theory is concerned with, in the particular (microeconomics), such choice problems as how much and what to produce, and how to go about this production (in terms of which inputs to use) -- theory of the firm; how much and what goods to consume -- theory of the household; and how the goods and proceeds will be distributed -- theory of markets, price, and particular equilibrium. In the aggregate (macroeconomics), orthodox economic theory deals with how much and what to produce, how to produce it (and more recently, if it should be produced at all), and how this produce is to be distributed. All of these and related decisions are made in a time continuum (short or long run). The decisions of the economy, as seen by Commons, are less specific but more general. They include decisions of how to overcome or resolve conflict between persons, how to recognize and act where mutual dependency exists, and how order may be achieved in economic relationships. With orthodox economics, decision-making is largely individual and of the conflict type; with Commons, it is both individual and group decision-making of all three types.

These definitions bring out several key differences between the two theories which should be made explicit. These distinctions are presented in the following sections of this paper; first in general terms (II) and then the contrast is made in assumptions (III), theoretical conclusions and explanations (IV), usefulness and applicability to economic research (V).

II. COMMONS' ECONOMIC THEORY

The theory of the John R. Commons focuses upon "social relationships," which include not only human relationships but also man's relationship to his physical environment. Where these relationships have become stabilized or regularized in some patternistic manner, the patterns can be separately identified as units of inquiry or collectively be considered descriptive of the prevailing social structure. These patterns of social relationships are designated as "organization" by Commons, and he uses this term both in discussing singular patterns as well as groups of social patterns.

Viewed over time, these patterns change in a natural but not necessarily predictable manner. This natural change in social relationships is due to certain unavoidable consequences of these relationships: conflict of interest, mutual dependency, and an innate desire of the participants to preserve order. This dynamic aspect of social relationships is called the "social process" by Commons. Because the social process involves an inevitable change in social patterns, the unit of inquiry (organization) is not necessarily a static thing. Further, because the social process involves natural but not necessarily predictable changes in social patterns, social problems are recurring and incapable of final solution.

These general introductory comments identify several key differences between orthodox economic theory and Commons' social theory applied to economic phenomena. First, Commons concentrates upon social relationships, those between men in the course of making a living, and considers the relationship of man to his environment only secondarily. This emphasis is the complete opposite of orthodox economic theory. Economic theory considers the firm on the one hand and the household on the other. The firm concentrates upon man's relationship to his physical environment in terms of manipulating resources to produce an output. The household concentrates upon man's relationship to his physical environment in terms of his wants, which are material and physical in nature (even services derive from physical labor, an environmental factor). The social relationship in economics is the market relationship, which is based upon firm (supply) and household (demand) relationships to the physical world. These latter relationships, of course, are tempered by social relationships but are derivative of the physical.

A second important and more obvious difference between the theories is found in the units of inquiry of each. The "organization" of Commons takes in the firm in all its varied forms (corporation, partnership, proprietorship, cooperatives, charities), the household, governmental units, and other customs and laws. A firm, for example, is nothing more than a customary way of achieving some end; it is a business custom and nothing more. And as a custom it is a stabilized social relationship which is subject to change; the nature of that change is more fundamental to Commons' theory than the decision-making processes it goes through as an economic unit. In complete contrast to this, accepted economic theory stabilizes its units of inquiry by assumption

and then investigates and generalizes the social-physical relationships involved within and between these units of inquiry. The "firm" is a simple representative of a large variety of business organizations; it combines resources to produce a profitable output by minimizing resource and production costs and by trying to dispose of its output to the highest bidder. This oversimplification is, of course, necessary to explain a complex decision-making process (theory of the firm). But Commons would argue that it fails to consider other customs and laws which modify it as a unit of inquiry and the theory that surrounds it.

A third distinction is the fully dynamic character of Commons' theory. Commons investigates the social process -- the dynamics of social relationships -- and questions the nature and direction of this change. Orthodox economic theory is generally divided into statics and dynamics. Statics is the most developed of these divisions and concentrates on the actions of firms and households as they interact during a period of time. The period of time considered, whether short or long, relates to the variability of decision variables as they are involved in the decision-making process, but does not consider them otherwise time-related. Thus, economic statics deals with periods of time in which decisions and market interactions take place, but the effect of time is generally disregarded. A special case of economic dynamics, comparative statics, introduces the dynamic division of orthodox theory. Comparative statics contrasts the results of the analysis associated with one period to the analysis of another period. Orthodox economic dynamics, aside from this special case, allows decision variables to be a function of time. For example, both the supply and demand functions are three dimensional, involving quantity, price, and time,

allowing for equilibrium price solutions on a time continuum. Thus, the nature of time changes as decision variables are considered by the orthodox theory. Commons theory considers, instead, the firm and/or household on a time continuum; thus, not only would the decision variables change, but the whole decision-making process (the customary way of producing) would change.

The fourth contrast between these two theories rests upon what each consider as "natural." The dynamic character of Commons' theory rests upon the "naturalness" of conflict, dependency, and order inherent in social relationships. Orthodox economic theory begins by considering it "natural" for man to be in conflict with his environment and with his fellow man. Early classical economists cited man's struggle with nature to obtain a living, and later the "pain" of this struggle to obtain the "pleasure" of satisfying his wants. The individualistic philosophy of the Enlightenment Period, which so strongly influenced economic theory in its developing stages, gave strength to an assumed naturalness in the conflict between men; all, of course, were uniquely rationalized by Adam Smith. The individual's struggle with his fellow man, of course, led Marx to his more aggregated theories of class conflict, but orthodox economic theory developed more with emphasis to man's struggle with nature and how this struggle is reflected in social relations. What Commons considers as natural goes beyond this conflict assumption and includes dependency and order. Conflict is modified by how much one individual must depend upon another for his economic livelihood, and the intensiveness of that conflict is tempered by the need for order in a society. An "orderly" business world develops from customs or laws of the market place, of firm organizations, etc. These are as natural a part of Commons' economic theory as the individual decision-maker trying to maximize profits in orthodox theory.

The final contrast to be made at this stage is in the predictability of the economic theories. A theory, of course, is a predictive device. But Commons' view is a theory of "organization" change. Within a given organization it may be possible to order and relate decision variables such that a predictable result can be obtained, but he would argue that such a device would be useful for only a short period of time because the entire organization is subject to change. Thus, for orthodox economic theory, final solutions may not be possible because decision variables change, but the method of solution changes in Commons' formulation, making final solution of an economic problem impossible.

Activities

The fundamental phenomena in Commons' theory are social activities, the basic unit of which is the "transaction." This term has a primarily legal meaning to Commons. It is not just an exchange of price for goods or a barter, it is any social action by a group or individual and involves legal duties or rights more so than goods. Goods, while the physical possession of them is transferred, have only secondary meaning in legal transactions; the legal transfer is not of goods but of rights concerning those goods.

There are a multitude of transactions in an economy, but Commons believes that certain types of transactions repeat themselves over and over again because there are certain similarities in any social action. Any social action must have a cause and effect, and each involve a purpose which is attained through choice. From this he concludes that because of a similarity of cause, effect, purpose, or choice or some combination of these, certain transactions repeat themselves. The "types" of repetitive transactions which are most

obvious to Commons include: (1) efficiency -- the similarity of activity directed at overcoming the resistance of nature; (2) scarcity -- negotiations over price and quantity in bargaining transfer of ownership and physical delivery of goods; (3) futurity -- actions concerning the future which are based upon expectations; (4) working rules -- activities by which collective actions create order and stability in an economy through defining the rights and duties of each citizen; and (5) sovereignty -- the actions using force by legal superiors against legal inferiors (i.e., the state vs. the individual).

These similarities of actions define and are defined by the collective "will." The "will" to Commons is an aggregate term which expresses the somehow summed desires of each individual, business, government, courts, etc. Viewed in some kind of momentary equilibrium, it might be expressed as what individuals and groups as businessmen and householders want to do within the restraints of one another, law and custom. Any action disrupts the balance and for Commons the "will" appears to be continuously in disequilibrium. This disequilibrium is not completely erratic, nor is it cyclical. It is contained because social action involves overt action (performance), no action (forbearance), or restricted action (avoidance). This appears to mean that any one of the five transactions may be performed, forborne, or avoided depending upon the other four. The act of production, for example, is performed if negotiations over goods (scarcity) are favorable, if expectations appear favorable (futurity), if no one will likely steal his output and get away with it (working rules), and so long as he can order his employees around (sovereignty). A change or unfavorable outlook for any of these will affect production decisions. If three of these appear favorable, and one is

precarious (say scarcity), then scarcity will rule or control the efficiency transaction. Thus, Commons argues that the "limiting factor" controls the collective will, and if control of the limiting factor is possible this provides control of all complementary transactions -- essentially the control of the economy.

These transactions, being that they involve social relationships, have the natural ingredients of conflict, dependency, and order. In this context it is possible to classify them in another way: in terms of the issue of the transactions and the status of the individuals. Commons separates out three of these "kinds" of transactions: (1) bargaining -- where the persons are legal, but not necessarily economic equals; (2) managerial -- legal superior to legal inferior; and (3) rationing -- legal superior to inferior concerning doling out of economic goods and returns. This classification serves only as a convenient means to study the legal and economic problems associated with social activities but are not directly related to the "will" and other transactions.

The previous discussion dealt with one aspect of Commons' economic theory -- the phenomena studied (social activities), how they are classified, and how they are interrelated through collective purpose. The analogy in orthodox economic theory can be made by discussing microeconomics and macroeconomics, and by introducing the theory of economic policy. The analogy becomes nearly complete by then discussing the role of law in the economic system.

In microeconomics the phenomena studied are the actions of firms and households. The rationale of their actions is made by investigating the decision-making processes they go through prior to the action they take. The act of production, for example, priorly involves choosing between various

resource combinations and/or various levels of output. The manner in which a firm arrives at its choice of action is believed to involve logic and a goal. The goal for a firm is assumed to be to maximize profits. To do this it must choose resources and combine them so that this result will be achieved. If the manner in which they are combined is assumed to be the best available (technology) and is defined by physical relationships between inputs and between inputs and outputs, then knowledge of these relationships and costs can be used logically to determine that point where input costs are the lowest and/or profits are the highest. A similar kind of logic can be employed concerning the decision-making of households, where the goals are to maximize satisfactions. Where households come in contact with firms (the market), the logical decisions of firms to produce at various output prices can be summarized as a supply function; the decisions of households to consume can be summarized as a demand function. The point, if it exists, at which both households will want to consume and firms will want to produce determines the levels of consumption and production for each. Thus far, it will be noted, the only transactions which are involved are the "efficiency" and "scarcity" transactions (with perhaps, some minimal exercise of the "futuraity" transaction).

In macroeconomics, the phenomena are the aggregate actions of firms and households, aggregate only in the sense that they are sums of individual actions. The decision-making process studied is merely the sum of many individual decisions; the supply and demand functions still summarize these, but they are on an aggregate level now. On this "blown-up" level at least three factors become particularly important. The market relationship of the firms and households was facilitated by price, expressed by money. Thus, the banking system comes into play more importantly. Production and consumption by government becomes

particularly crucial. The legal base for market (scarcity) transactions also becomes more obvious. Thus, the monetary authorities and government provide futurity, working rules, and sovereignty transactions in Commons' meaning of the terms. These latter named transactions become important considerations in macroeconomic theory -- the role of government and monetary authorities compose a large segment of the theory. But up to this point the "will" of the individual as it conflicted with "wills" of other individuals constitutes only part of the collective "will" of Commons. This is to say that without the Keynesian revolution in macroeconomics, a fuller meaning of the collective "will" would not have been as logically incorporated in the theory.

The theory of economic policy began with Keynes but was more recently refined by Tinbergen. It involves the use of "instrument" variables to attain desired values of "target" variables ("targets"). These "targets" are economic goals on an aggregate level: a particular rate of economic growth, level of employment, general price level, etc. Thus, the theory of economic policy (incorporated into macroeconomic theory) recognizes the collective "will" in the full meaning employed by Commons. The "instruments" which act upon the limiting factors (i.e., the structure of the economy) are control devices which include monetary, fiscal, and anti-trust policy variables. These controls are yielded by government to promote public welfare. Thus, the collective "will" in economic theory is a combination of individual wills in conflict, the results of which are summed to combine (or to conflict) with the public will as expressed by government.

Laws exist to stabilize expectations, and courts exist to settle disputes that arise where these expectations do not materialize. In terms of what

Commons separates out as repetitive transactions, laws tend to place limits of avoidance upon "efficiency" transactions. The production of certain drugs, for example, is prohibited in the U.S.; the use of child labor is not allowed; etc. The law of contract, sale, and negotiable instruments in the business world exists through knowledge that if a breach of contract occurs, money damages will be allowed at law or specific performance in equity. Thus, this law represents "futurity" transactions and "working rules" imposed by "sovereignty" transaction. The other "kinds" of transactions separated by Commons are suggestive of certain basic relationships that separate fields of law and types of issues or problems therein. "Bargaining" transactions (involving legal equals, but not necessarily economic equals) are part of the civil law fields of contracts, sales, agency, and negotiable instruments; "managerial transactions" suggest the master-servant relationship (legal superior relationship to legal inferior) in civil law. The rationing transaction is civil law in the sense Commons uses it.

Thus, the analogy is complete, but only by touching upon some aspects of law was this possible. Economic theory stresses the individual action and purpose, and only more recently does it touch upon the public will with respect to certain economic goals. It fails completely to consider more micro goals of legal stability and order.

Organization

Commons' "organizations" (stabilized social relationships) are of two basic kinds, one related to the other by the social process. First is "custom," an unorganized form of collective action which affords the individual an expectation regarding certain social relations. Customs vary and are selected

by the collective "will" to form more developed social patterns. These social patterns set performance limits to individual wills, and when these wills are so limited that individual wills become a group will, then a new and second kind of organization evolves -- the "going concern." "A going concern is an organization of coordinated activity; it is collective behavior with a common purpose, and a collective will, governed by common working rules." ^{2/} The state (government) is an example of a going concern which has as its working rules the law. The law imposes duties upon citizens, thus defining the limits of individual performance of will. This creates "rights" and provides status to the individual. His status may be secure or exposed; law provides security of status. "When one buys property he really buys rights to property; and when he buys the rights to property, he is buying the expectations that the state will use its powers to support the purchaser's claim to the property." ^{3/} In so defining property, Commons bridges the apparent gap between social and "physical" relations as suggested earlier as an elemental difference in emphasis between orthodox and the Commons' theory. Man through labor or wants, does not have a relationship with the physical, but man's "wants," for example, are wants or "rights" with respect to a physical good -- the right to destroy the good through consumption. Such a right is bestowed by the expectation that the state will enforce duties upon others to not consume the item which the individual "owns."

Other going concerns exist but they exist only because expectations of social action are regularized. A business functions only so long as financiers,

^{2/} Parsons, p. 254.

^{3/} Parsons, p. 255.

input providers, laborers, and the state are willing to let it operate. A business concern, as a social relationship, is mutually dependent upon others; a need for order exists, and conflicts must be settled by an accepted manner (through courts).

Two essential differences between Commons' and accepted economic theory are brought out by the foregoing summary. First, Commons, in line with the dynamic character of his theory, suggests the direction that social change takes place. Customs evolve from continued social interrelationships primarily by chance; they become more regularized by choice of individuals in exercising their free wills, but as customs become more stabilized the discretionary range in which the will can operate becomes more and more limited; this culminates in group will, which creates a going concern. In terms of social organization, nothing similar exists in orthodox economic theory. Looking at dynamic economic theory, an analogy exists in converging equilibrium in the cobweb analysis of price change and in terms of size of firm by "economies of scale" inherent in the production process or external to it. Perhaps, the closest analogy exists with the latter. Amongst the determinants to structural change (re-size of firm) are economies of scale, but the theory of structural adjustments does not appear (to me) to be developed sufficiently to be considered an integral and accepted part of orthodox behavior.

The concept of legal property, while common in the law of sales as an analytical device, does not appear to be considered in orthodox theory. Accepted economic theory certainly recognizes interrelationships between government and business, but the legal property appears to go largely unnoticed. Private property is assumed as something static which is not considered in the

analysis. It might be interesting to note on this point that the law of sales has been slow in developing the property concept cited by Commons. The history of the law of sales indicates that the original thoughts on property were that it was considered synonymous with possession -- a physical concept. Later developments stressed "rights," but even today a strong hint of the physical concept remains because the Uniform Sales Act treats these rights in a lump form which somehow magically "jumps" from one person to another during a transaction. Although this is being changed under the Uniform Commercial Code, the statute law which now prevails is still influenced by the physical concept of property.

Valuation

"Valuation" is a joint action that takes place within organizations according to Commons; a theory of reasonable value results. Valuation is centered about the bargaining transaction, and "reasonable" value turns depending upon how much disparity of economic power is tolerable in agreements over price. Economic power, in Commons' thinking, rests in the power of property, the right to offer or withhold goods from the market. Reasonable value then depends upon whether the property rights themselves are reasonable. In this context "restraint of trade is bargaining power and reasonable restraint of trade is reasonable bargaining power." ^{4/} From this it appears that Commons' valuation is social or group in nature, and "reasonableness" can only be determined by the court.

Thus, Commons is not concerned with how or why particular prices are what they are; he is concerned with whether unequal bargaining power exists to define a socially unacceptable range of potential prices. Such questions are

^{4/} Parsons, p. 258.

settled only by courts, because not only are mere reasonable profits involved, but the entire bargaining transaction must also be weighted as "reasonable" with respect to order, stability, and mutual dependency, in the economy.

The Commons theory of value differs significantly from the valuation of orthodox theory. It is reminiscent of the "fair" price arguments of St. Thomas Aquinas and earlier philosophers, and it summarizes some of the major problems involved in anti-trust and contract actions today. In terms of orthodox economic theory, it discusses some of the important aspects of market structure theory. To the extent that in pure competition theory no individual firm is large enough to influence industry price by its action, atomistic power relations prevail, and prices approximate cost of production. This would be considered "reasonable" by Commons, but his analysis would direct attention to the right of each firm to sell or withhold its product and the subsequent consequences. In the case of pure competition, exercise of this right would not cause problems of unreasonable profit, order, or mutual dependency. It is where dominant and circular power relations exist (monopolistic competition, oligopoly, partial oligopoly, etc.) that Commons' theory adds to the orthodox concepts. Where such power exists, social or group action is necessary to other industries that are mutually dependent upon what happens there, and the order and stability of the whole economy may be at stake. Reasonableness is thus judged by and controlled through property rights of sales. Courts set a "fair" price for public utilities; Commons would argue that the full dimensions of reasonableness must also be considered where any economic power exists.

The foregoing summary and contrast with orthodox economic theory provides an interpretive base upon which the following sections of this paper are based.

III. ASSUMPTIONS CONCERNING ECONOMIC BEHAVIOR

In the analysis of complex, interacting social phenomena, some simplifying assumptions must be made to gain understanding. These assumptions may take different forms (accounting identities, equilibrium conditions, etc.), but the kind of assumptions to be considered here are "behavioristic" assumptions. Assumptions regarding economic behavior are at one level deeply rooted in the philosophy of man, and at another level are empirical generalizations based upon experiences.

The more deep-rooted or philosophic assumptions regarding economic behavior are in evidence and in contrast when Commons' view is compared with the orthodox theory. First, Commons seems to say that man is a social animal who is highly dependent upon others for his existence; orthodox theory emphasizes the individuality of man in struggle with nature and his fellow man. This distinction does not make orthodox theory pragmatic and Commons' not so. Commons is a pragmatist, but it is expressed in terms of his belief that man is capable of working out (through a democratic form of government) a society in which social conflict is minimized. Because of this basic difference in assumptions regarding the nature of man, orthodox theory stresses man's relationship to nature as basic to his relationship with other men. Both supply and demand relations derive from the physical, and these are, of course, integral mechanisms of explanation in both micro and macroeconomic theory. Commons' emphasis is on the social relationships of man, suggesting that man's relationship to nature is really a social relationship because legal property is involved. By concentrating on the social relationship, the production and utility functions of orthodox theory become blurred and inappropriate. Instead, he focuses upon social actions and transactions

and attempts to find explanation of economic behavior empirically in terms of supposed ingredients of social action.

A second philosophic assumption regarding economic behavior is closely tied to the first. Commons considers social action and relationships as having "natural" ingredients. Social action has a cause and effect and a purpose which involves choice. Social relationships involve conflict, dependency, and order. These assumed "ingredients" are the building blocks upon which most of his theory is built. Orthodox theory does not appear to get so involved; the analogy to social action is individual action prompted by a decision-making process which involves choice. The purpose is individual (not a collective will); the cause is greed; the effect is to satisfy that greed. In social relationships, orthodox theory sees conflict and little else. Economic conflict (competition) is rationalized as good for the collective whole; it only plays lip service to dependency and order.

A second level of behavioral assumptions derives from observation of reality. The basic difference between the Commons' and orthodox viewpoints at this level can probably be attributed to Commons' work as a researcher for judicial actions involving economic issues. He was faced with the hard reality of having to present analyses that were both economically and legally sound.

Commons' classifications of social relationships, probably because of this fact, have both an economic and legal flavor. The kinds of "transactions," for example, are only part "economic" in the orthodox sense. Efficiency and scarcity transactions come fairly close to what orthodox theory includes; the futurity, working rules, and sovereignty transactions are Commons' inventions that more clearly emphasize legal considerations, but these three are also a

part of economics to him. When he classifies transactions into bargaining, managerial, and rationing he relies chiefly upon law. These are classified according to the legal issue or status first, then subclasses take up orthodox economic ideas.

The assumptions of orthodox theory to be contrasted at this level are sometimes difficult (for me) to separate from the kind of assumption which is needed to "make the model work." Orthodox theory, for example, assumes that men will behave rationally. This "rational" behavior is basic to the whole of economic theory; without it, the logic of much of economic theory would be lost. Commons' theory is not so confined. Whether man behaves rationally or irrationally is immaterial; how he does behave is the basis for Commons' assumptions, the assumptions being based upon experience.

Rational behavior relates to arriving at logical conclusions with respect to choosing alternative courses of action when some goal is predominant. If profits are to be maximized, then the logical level of output to produce is X. The goal of economic theory is individual in microeconomics, but it more social in macroeconomics. Commons thinks of economic goals primarily on a social, collective basis. The collective "will" in its complexities is evidence of this emphasis. Thus, collective welfare is the greater goal to Commons, and he apparently believes that, while each individual in seeking his selfish ends may increase collective welfare, once a purely competitive economy no longer describes reality, collective welfare becomes singularly important.

Because of his legal bent, Commons questions some of the more general assumptions made in economics about private property, enforcement of contracts, etc. These assumptions, once relaxed, become part of Commons' economic theory.

The natures of other assumptions made by orthodox theory are largely for analytical purposes. Economic statics, for example, supposes a single period for purposes of analysis, but economic dynamics exists to refute any suggestion that theorists believe economic phenomena are timeless. Elasticity of demand measures a relationship where income, related product prices, and other variables are held constant, but income elasticity of demand and cross-elasticity measures show that the effect of these other variables are considered. Similar analytical assumptions would also have to be made by Commons.

Because the assumptions made by Commons are so closely tied to reality and are dealt with inductively as temporary guides, his theory is considerably more flexible than the orthodox. Where a logical system of generalizations is built upon a few empirical observations about economic behavior, and these assumptions become invalid over time, complete revolutions in thought (re the Keynesian revolution) are required, and parts of the theory must be rebuilt.

IV. THEORETICAL CONCLUSIONS ABOUT REALITY

Commons' emphasis upon social relationships and the collective will leads him to conclusions concerning economic reality which differ markedly from the orthodox point of view. The nature of this difference begins to become clear when the Commons' analysis is applied to the operation of an economic "firm."

A productive organization which creates output from the raw materials of nature is a two-sided affair. It is a "plant" on the one hand, and a "business" on the other. As a "plant" it is concerned with inputs and outputs, the inputs being labor and materials, and the output is something useful to mankind. The physical input-output relationships are basic to the operation of the plant. As a "business" the organization must engage in

bargaining transactions over the transfer of ownership of goods. This is done through the scarcity transaction which is a summary term to describe supply and demand.

The distinction between orthodox and Commons' theory comes when wages of the laborers are reckoned with. Where economic theory relates output of the plant to the labor that produced it (labor productivity) to help measure wages, Commons would consider it fallacious to do this. Output is "owned" by the proprietor, and no necessary relation between labor and output exists as a basis for wages. Wages are the separate subject of bargaining transactions. The apportioning of output to labor income is not an explicit mathematical function but a subject of social relationships. This distinction is crucial to the scarcity relationship. "Efficiency" as a measure of minimal cost of production for a given output is important in the market relationship, but efficiency is gained through wage bargains (and input purchase bargains) more so than by changes in the physical relationships of input-to-output. His analysis is particularly relevant to imperfect competition situations, and how these "bargains" come out are measured by social criteria.

From this he concludes that money as a unit of measure is classed with weights and other standards as convenient units provided by society (through law of collective working rules) that are primarily for the purpose of settling bargaining disputes. Thus, to Commons, the bargain (transaction) is basic with money, physical input-output relations, etc. as attendants to it.

This taking of the emphasis of orthodox theory away from the physical and instead stressing the social relationship leads his analysis to be primarily social, involving law and economics in the same breath. Commons asks "What are the legal relationships?" followed by "What are the economic relationships?" and then asks "What social conclusions can be drawn?". Because

of this, the economic reality of Commons is much broader than those of orthodox theory, but it is also less precise.

Economic theory, where possible, seeks determinant solutions through logic devoiding itself as much as possible from ethical considerations. It accepts a social criteria as assumptive to the analysis (efficiency, growth, etc.) and proceeds to arrive at solutions through deductive reasoning. Commons takes the view that such ethical issues are problems to be weighed and considered by courts in view of broader social goals (order, dependency), and solutions are based upon a peculiar economic analysis which considers all of these goals simultaneously. Such solutions are not necessarily logically determined but judicially determined.

That truly economic problems reside in the courts and are settled by them is an overstatement. The explanation of economic phenomena made by orthodox economists is descriptive of large portions of reality, and much conflict is resolved by the give and take of the market place. The conflict which leads to judicial action (and involving numerous goals, both collective and individual) may be more socially oriented than individually oriented, but the proportion of the cases it represents may be proportionately small. This is to say that Commons' reality may be colored by his association with court actions. But the relevance of his comments remain to expose important oversimplifications made by orthodox economists. To combine legal analysis with economic analysis in a joint theory is a noble task which unquestionably leads to a better explanation of economic behavior. That Commons has attempted this is true, whether he has been successful is another thing.

V. USEFULNESS AND APPLICABILITY TO ECONOMIC RESEARCH PROBLEMS

Economic theory and research benefit one another; theory serves as a guide in research, and research attempts to "test" prevailing theory as well as to formulate new or better explanations of reality. The following discussion is directed, therefore, at how the Commons' and orthodox theories contrast as guides to research endeavors.

Economic theory, through its assumptions, classifies economic phenomena into analytically-useful categories. In this manner it describes economic reality before it undertakes to explain why the economy functions as it does. In line with these dual tasks of economic theory, economic research is both of the descriptive and analytical varieties.

In describing economic reality, the product or commodity is normally used as a first delineator, separating economic phenomena along product lines for the purpose of analysis. A second descriptive device is to define the units of inquiry -- the firm, household, etc. in terms of its goals, internal structure, and external structure as it relates to other firms. A third delineator is the function or operation each unit of inquiry performs as a productive unit--what do they do to the product? Orthodox economic theory suggests that these descriptive units (by assuming a particular product, a particular firm and goal, a special market structure, and a certain type of productive activity.) At this descriptive stage, Commons would want to add the legal status of the firm to the state and to other firms, the legal relationship between management and labor, and ownership rights to the goods.

Thus, if the research were primarily descriptive in nature, Commons' theory would require a greater description of reality by inclusion of legal

status. But research aimed at describing how the system works (though plentiful) is antecedent to why it operates as it does. This introduces "analytical" research in which hypotheses concerning economic behavior are made and evidence to support or refute the hypotheses is gathered. These hypotheses are frequently derived from economic theory and are related to hypotheses suggested by it. To suggest more explicitly the usefulness and applicability of orthodox economic theory to research would involve digesting the empirical base of all of economic theory, but some of the hypotheses which Commons' theory would suggest might be mentioned. In research directed at the firm, Commons would ask if the legal status of it being a corporation alters its operational behavior and to what extent the managerial relationship is affected by the labor-management bargaining relationship. In price research, he would ask if supposed cyclical fluctuations in time series have real economic meaning, or do they merely represent an erratic movement of prices within a range, the range being caused by disparity of economic power? In market structure research, he would question the legal influences of contract, property, working rules, etc. upon market behavior. In many areas of research, legal relationships and status would be interjected into the inquiry.

In more general terms, research directed at listing alternative solutions would be expanded to include more alternatives. An industry or firm, for example, may gain in financial reward not only by reducing or increasing its output or by combining or dropping related enterprises, but also by joint action among firms, or by political action through government. Thus, where a limiting factor to social action is decadent laws, changing the law should be considered as an alternative course of action.

Commons' would advocate policy research-- the kind that he had to cope with. What alternatives truly exist when both public and private goals conflict? How are conflict of goals resolved within a context of sound economic analysis?

The emphasis of Commons' theory led to the conclusion that if economic theory is to be useful to a society which needs guidance, it must integrate or expand to include the broad social questions of the times. It suggests an interdisciplinary approach and advocates social rather than economic research.