ON THE POSSIBILITY OF A POLITICAL ECONOMICS

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This essay is prompted by a profound sense of dissatisfaction with the state of contemporary economics, a dissatisfaction that finds its expression in the charge, voiced not only by a large number of students but by a growing body of economists, that conventional economic thought lacks "relevance" to the problems of our times. By this I believe most critics mean that conventional economics serves neither to depict accurately the structure or the tendencies of modern economic society, nor to guide reliably efforts to improve it. If this charge is true – and I believe that in large measure it *is* – an examination of the reasons for this lack of relevance would surely seem a matter of some importance. To provide such an examination is one purpose of this paper.

But I have a further end in mind, beyond a critique of conventional economic analysis. With all the risks that such an enterprise entails, I wish to use the occasion to suggest the direction in which I think that analysis must move if economics is to regain a sense of relevance. It should hardly come as a surprise that this direction is political – using the word in the broadest Aristotelian sense – for this is no more than to assert that the missing element in conventional analysis is any systematic consideration of man as the product and the producer of social forces other than those that can

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be detected by the narrow wave lengths of economic vision. To put it differently, what is required to rescue economics from a condition that I have described as "rigor, but alas, also mortis"[1], is to join the dimensions of political and sociological reality onto the flat-land models through which conventional economics seeks to explicate the nature of the existing social order. Hence my call for a "political economics", the nature of which I shall try to clarify as a second main purpose of this essay.

IRRELEVANCE – A PROBLEM OF SUBJECT MATTER

My aim is clearly an ambitious one, despite the cautious phrasing of my title. Tactically and strategically, then, I think it would be well to begin with the least troublesome aspect of the problem, by examining precisely what we mean when we claim that conventional economics is not "relevant" to the contemporary world. As we shall quickly see, the meaning of that critical word is neither simple nor single-valued, and a study of its definitions will lead us rapidly in the direction of the more difficult issues with which we must finally come to grips.

The first definition of irrelevance is perhaps the one that most closely expresses the impatience of many students with the discipline. It is the failure of the great majority of academic economists (as contrasted with "economics") to interest themselves in any deep criticism of our present social and economic order. A few instances may give substance to that general charge. One of them concerns the absence of professional economic interest in the phenomenon called "imperialism". Between 1950 and 1969, American direct foreign investment increased from less than $12 billions to over $65 billions, and the volume of sales of these foreign branches and subsidiaries ($120 billion in 1966) has mounted until, in Servan-Schreiber's well-known phrase, "Fifteen years from now it is quite possible that the world's third greatest industrial power, just after the United States and Russia, will not be Europe, but *American Industry in Europe.*"[2]

Whatever the accuracy of this prediction, there can be no doubt as to the importance of the American foreign economic expansion. Yet, a student of our times who depended for his knowledge of current economic trends on the main journals or books produced by the economics profession would be almost totally unaware of it. So far as I am aware, no analysis of the "imperial phenomenon" is to be found in the normal range of the professional literature. Until very recently, our knowledge of the extent, nature or consequences of the

American hegemony in foreign trade and investment, both in the underdeveloped and the developed world, has been gained almost entirely from Marxian economists or journalists.

There are other neglected subjects of similar importance. Poverty and environmental decay are probably the most striking. There is today a considerable discussion of poverty and ecology in the economic journals and scholarly books. But I think it is a fair charge to levy against the profession that neither of these critical issues first emerged as a consequence of its own researches, but rather from the inquiries of independent investigators, or from the actual disturbances caused by poverty and pollution themselves.[3]

THE THRALLDOM OF TECHNIQUE

The roster of ignored subjects could be easily expanded. What concerns us here, however, is not to chastize the profession, but to inquire into the reasons for this striking lack of interest in "relevant" issues. There are, I believe, two answers – one subtle, but easy to expound, another obvious, but not so easy to write about.

The first has to do with the current hegemony of the scientific method, or rather, with a particular model of that method that stresses avoidance of explicit value judgments and dependence on relationships capable of rigorous expression, preferrably mathematical notation. This particular paradigm of the scientific method has proved the most powerful intellectual tool that man has so far invented for the control of nature, and it is not surprising that economists should have borrowed it to forge similar tools for the control of society.[4]

The difficulty, however, is that this paradigm, applied to the field of social problems, tends to rule out of bounds those kinds of issues that resist accurate measurement, or that lend themselves only awkwardly or not at all to mathematical representation, or that contain a central and irrepressible value consideration. In a word, it tends to rule out most "political" matters. When confronted with their failure to initiate an examination of problems such as those mentioned above, most economists will reply that they have no "technique" capable of handling such problems, an answer that would imply that the paradigm itself may be a serious limitation to economic understanding. Instead, we find that the paradigm is unquestioningly retained, while those problems that do not yield to it tend to be relegated to the second rank of importance, or better yet, pushed off in the general direction of some other discipline.

So much has been written on the dangers inherent in the thralldom of technique that I need not rehearse this familiar subject here.[5] Let me only add one remark of a general nature. It is that economists are apt to overlook that the powerful models of physical science, which they seek to imitate, exist for one purpose only – to offer patterns of interdependence or hypothesized relationships that can eventually be put to the test of empirical observation. That is, the main purpose of the model-building method of science is to facilitate the eventual testing of the *premises* on which these models are constructed. In economics, or in social science generally, it is not usually possible to utilize models in this way.[6] The controlled experiment that is the cornerstone of so much of physical science cannot be performed by the social scientist. Thus, models of economic relationships proliferate endlessly because they are not subject to the constraints of application and practice that ultimately winnow the hypotheses of physical science. This is a condition that encourages the exercise of economic imagination for its own sake, with a concommitant indifference as to whether or not the products explain or clarify the underlying social realities.

SOCIOLOGY OF ECONOMIC KNOWLEDGE

These very important questions will require further analysis, but first let me broach a second reason for the lack of interest of professional economists in "political" issues. It is quite simply that economists are mainly of conservative political orientations, and therefore do not *wish* to investigate these questions.

I am not the first to suggest that economists are conservative. In a well-known essay, "The Politics of Political Economists," George Stigler has written, ". . . the professional study of economics makes one politically conservative."[7] The reason for this, in Stigler's words, is "the effect of the scientific training the economist receives. It becomes impossible for the trained economist to believe that a small group of selfish capitalists dictates the main outlines of the allocation of resources. . . He cannot unblushingly repeat slogans such as 'production for use rather than for profit'. He cannot believe that a change in the *form* of social organization will eliminate basic economic problems."[8]

It may be however that there is another reason to which we must look for the prevailing conservatism of economic thought. Stigler refers to it, only to dismiss the thought: "The conservatism of economists cannot be explained by the vulgar argument of venality," he writes. ". . . The current rates of pay for good economists are much below what I would assume to be the going rate for a soul."[9]

I do not know the prevailing rates of pay for economists in 1959 when Stigler's essay was written, but the median going rate in 1967 for full professors was \$18,000. In that year an income of \$12,000 (just above the median for "superior assistant professors") put one into the top 15 percent of all taxpayers; an income of \$14,000 (associate professors) into the top 10 percent; an income of \$18,000 into the top 5 percent. "Superior" professors in that year averaged over \$21,000 (not counting royalties, lecture or consultation fees), placing them in the top 2 percent.[10] One need not invoke venality to suggest that men who are placed in the upper income echelons of a society tend to share many of its values. What Malthus called "the insensible bias of situation and interest"[11] is a cast of mind that we recognize readily in others, including such august personages as the Justices of the Supreme Court.

In calling attention to the ideological pressures to which economists are consciously or unconsciously subject, I do not seek to impugn their intellectual integrity. The matter goes deeper. For the disturbing characteristic of the kinds of questions from which economists tend to shy away is that they concern problems for which there may be no solutions within the existing socio-political framework. That is, an explicit awareness of the political elements inextricably involved in economic change forces the analyst to the recognition that *powerful noneconomic constraints bound the domain of realistic economic theorizing.* With this recognition comes the unwelcome conclusion that many proposals for change are doomed to futility, and that certain attributes and tendencies of the system are beyond reform.[12]

The very awareness that limits do exist and must be taken into account acts as a powerful depressant on the state of mind of the would-be "value-free" investigator who senses that fatal inconsistencies of a political nature may invalidate the logic of his economic reasoning. A commitment to a political economics does not require that a hostile animus motivate the social analyst, but the questions that it poses serve unquestionably to try the faith of the partisan of the *status quo* or to reveal the disconcerting extent to which his economic conclusions rest on uncertain political assumptions.[13]

IRRELEVANCE AND INADEQUATE CONSTRUCTS

One reason that economics is "irrelevant" is thus that the majority of economists do not wish to make it relevant, partly due to the restrictive effects of the prevailing paradigm and its techniques, partly to an unwillingness to pursue inquiries whose outcome promises an increase in the psychic discomfort of the inquirer, possibly placing him in a position of acute conflict or political jeopardy. Although I cannot prove these assertions, it is my personal conviction that their deterrent effect is both widespread and deep-seated.

But there is a second and perhaps more fundamental meaning of irrelevance. This is a charge leveled not against the omissions of economists, but against those of economics. It is the contention that with the best will in the world, certain problems critical for an understanding of the social order remain irresolvable because the appropriate tools do not seem to be included in that famous tool kit of conventional economics.

The first deficiency is well known to conventional economists who spend a good deal of time trying to overcome it. It is the failure of present-day analytical techniques or conceptual schemes to present a consistent or integrated model of the economic system in the terms in which that system is usually perceived. Primary among these failings is the absence of a unified theoretical framework capable of explaining both macro and micro behavior. A second widely recognized lack is an adequate theory of the major agent of contemporary capitalism – the corporation. What is lacking is a set of premises concerning behavior, technology and organization from which reliable predictions can be made as to corporate behavior. Perhaps at an even more fundamental level are the misgivings expressed by some economists as to the validity of certain prime constructs of economic thought, such as "capital" or "welfare" or even "gross national product."

Certainly the inability of economic theory to cope with such problems lessens its effectiveness. Nonetheless, many of these particular failures of economics appear to be reparable. The gulf between micro and macro economics arises in large part from the different kinds of problems that each isolates, and there seems to be no intrinsic reason, rooted in the nature of economic reality, why a more unitary mode of reasoning should not eventually emerge. Work on the behavior of the corporation has proceeded apace, promising us a new model that seems to account for the observed tendencies toward concentration and oligopoly, and even yielding optimal strategies for growth. The problems of concept and measurement are much more obdurate, but once again, the difficulties do not seem to vitiate the core of economic theory itself, but rather to establish limits on the degree of exactness that can be expected of that theory in use.

I do not wish here to speculate on which areas of economics will most readily yield to further refinements of conventional theory, but rather to point out a common denominator to be expected in all such advances. It is that *we can anticipate improvements in models that serve as ideal-typical representations of certain aspects of the system, but not in models that are intended to be used for "hard" prediction.*

IRRELEVANCE AND PREDICTIVE LIMITATIONS

The relevance of economic theory as an instrument of prediction depends on two interdependent but separable aspects of the process of theorizing itself. The first consists in the capacity of a theory to filter out from the immense field of our perceptions those attributes deemed significant. The second consists of subsequent efforts to link these mental constructs into a relational system.[14]

The first of these two tasks of theory is in some respects the more fundamental, for it prescribes the terms on which we come to grips with the unmanageable complexity of an unstructured reality. Some of the present lacunae of economic theory – the gap between micro and macro theory, for example – may well be repaired by the design of more "relevant" abstractions with which to handle the economic universe. More to the point, if it is possible to join a political element to the prevailing economic constructs, this would in itself radically alter the ideal-typical model of the economic system itself, perhaps changing very markedly our theoretical understanding of it. That is a matter of which we shall have more to say subsequently. But it is first necessary to examine certain intrinsic limitations within the second aspect of theorizing – to wit, attempts to join the given constructs into the kind of functionally related system that accords with the prevailing scientific paradigm.

These limitations are rooted in two indispensable assumptions that underlie all the functional relationships of conventional economics. One of these is that it is possible to describe in "law-like" terms the behavioral responses to certain critical changes in the economic environment, mainly the responses of buyers and sellers to changes in prices, or of consumers and investors to changes in income and/or interest rates. All models, macro or micro, are built on the bedrock of a presumed behavioral consistency, whether this be pictured as short-run maximizing, long-run satisficing, homeostasis, or whatever.

The second assumption underlying economic theory concerns the nature of the material relationships among the factors of production. Put concisely, economic theory builds its models on the premise that it is possible to describe "engineering" functions to serve as counterparts to the required behavioral functions. These engineering functions serve as necessary constraints on the forces of behavior, specifying the elasticities of substitution among goods or factors in the production process, the economies of scale for all inputs together and so on.

I think there can be no doubt that economic theory cannot build reliable – and in that sense, relevant – models that fit the reigning paradigm unless it can describe, with some degree of confidence, the nature of these essential behavioral and technical functions. Our textbook models of economic society are all grounded in the law of supply and demand, the law of variable proportions and so forth. Moreover, as Adolph Lowe has pointed out, it may well be that from an historical point of view economics was entirely justified in taking the reliability of these functions for granted.[15] In the environment of widespread poverty, small scale enterprise, uninhibited acquisitiveness, and "mechanical" technology characteristic of the middle 19th century, it is likely that both behavior and production displayed the reliable patterns of stimulus-response and change that economic theory attributed to and implicitly required of them.

The problem arises, however, when we ask whether that confidence can be justified in the altered environment of the latter 20th century. As Lowe has pointed out, the structure of a highly industrialized, oligopolistic system is such as to lengthen enormously the time-horizon applicable to "maximizing" decisions, while the concommitant rise of standards of living has greatly increased the importance of "discretionary" expenditure for the consumer. In this relaxed environment, the external pressures that once produced reliable patterns of behavior – short-run maximizing for the firm, negatively sloped demand curves for consumers – have given way to a much looser set of environmentally imposed constraints. As a result, "normal" economic behavior, both for the consumer and for the firm, becomes increasingly unpredictable. In Lowe's words: "[C]onsidering the state of uncertainty in the modern industrial market, opposite actions such as increasing or decreasing output, raising or lowering prices, can be defended in one and the same situation as the most promising step for profit maximization."[16]

Lowe's criticism deals a severe blow to the reliability of economic theorizing in the short run period in which the behavior function is critical. Recently, I have suggested that there is a second and no less substantial obstacle to reliable prediction in the long run, based not on the vagaries of behavior but of technology.[17] For over a long enough period it is possible to regard the perversities of behavior as essentially random departures from a trend line, while expecting the underlying trend to reassert itself persistently after each moment of perversity has passed. To put it differently, profit or utility maximizing may lead to differing actions in the short run, but over a longer period, it is at least plausible that a consistent pattern of behavior will emerge. But when we now examine the possibility of projecting long-run production functions, we find that the unpredictability of short-run individual or institutional behavior has been transferred to the "behavior" of technology. It is simply a fact that we cannot make predictions over a time span of as little as a decade with regard to the proportions of inputs – much less the kinds of inputs – that will be required to produce a unit of given output, or for that matter foresee the mix of outputs themselves. In this long run indeterminacy, changes in taste and motivation play their role, but the prime upsetting factor, including a main reason for changes in taste and motivation, is the unpredictable shape of the production function over time.

As a consequence of this increasing indeterminism of the basic premises on which predictive models are based, economics faces a genuine crisis. The seemingly capricious factor of behavior weakens the relevance of economic prediction in the short run; the unknowable path of technical change undermines it in the long run.

There is, however, a remedy – or at least a partial remedy – for the inadequacies of economics that stem from the erosion of the behavioral or technological determinism on which it was built. This is a reconstruction of economics along the lines that Lowe has described as "instrumental". By this Lowe means the deliberate abandonment of economics as a science that deduces its conclusions or predictions from secure premises of behavior and technology, and its replacement by a conception of economics as a policy-oriented instrument whose major theoretical purpose is to discover what "premises" – what behavioral forces, what technological constraints, what institutions – would be necessary to attain targets or goals. Economics thus overrides the indeterminacy of its behavioral or technological underpinnings by transforming them into the *dependent* variables of the economic model, the appropriate forms of which will be specified by whatever constraints or targets are introduced as parameters.

In this way economics regains relevance by becoming first and foremost a theory of planning, including above all the planning of the appropriate behavioral preconditions for the tasks determined by political choice. In the case of unruly economic behavior, for example, instrumental theorizing would consider what measures might be necessary to restore expectations to a state conducive to "normal" economic activity, while the disturbances inherent in unforeseeable leaps of technology could be minimized within the time spans of economic plans and projects by direct controls, to the extent that they would be necessary or feasible.

IRRELEVANCE OF NON-HOLISTIC THEORY

There are many problems associated with the construction of an instrumental economics, to which I will later revert, but its insistence on a political premise to economic theory brings us naturally to a third, and in some respects most far-reaching definition of the irrelevance of conventional economics. This is the charge that in concentrating on a narrowly defined set of problems, economics no longer asks the questions that are of greatest concern for contemporary society; that it elicits answers that are uninteresting because they do not take into account the political and social attributes of the economic variables on which they concentrate. To put the charge in the language in which it is frequently voiced, this aspect of irrelevance springs from the intellectual mistake of first wrenching the "economy" from the "society", and thereafter treating the abstractions of economics without regard for their inextricably linked noneconomic causes and consequences.

The antithesis to this narrow approach is, of course, the "holistic" approach of Marxian economics, and to a lesser degree the classical economists that preceded Marx. What is it that gives to these earlier doctrines their holistic quality? I believe the answer lies in three characteristics shared by all of them:

> 1. The holistic models treat as dependent variables (or as constants) aspects of the social process that modern theory treats as independent variables. For instance, a crucial element in Marxian and non Marxian models alike is a subsistence level toward which the wage level constantly tends. *This gives a basic social and political, as well as economic, parameter to the ensuing dynamics.*
> 2. Class interests are expressly recognized. The main dependent variables of the economic process – wages, rent, profits – are treated not merely as factor returns, but as class returns. *Economics thus emerges as the study of the changing fortunes of social classes under various assumptions concerning behavior, technology, and institutions.*
> 3. Definite, if sometimes only implicit, notions of welfare form an

> integral part of the model. Benign or otherwise, in every case a clear view of the desired social destination serves to join value judgments and economic analysis. *Economics thus becomes the willing servant of politics.*

Out of these assumptions emerge the "magnificent dynamics" of a great internal struggle within society that can be both clearly divined and unambiguously judged. These dynamics, it need hardly be said, depend on a number of critical assumptions. One of them, as we have already mentioned is the "driven" character of 19th century behavior, both of the worker and the capitalist, whence derives the strict determinism of the schemata. Another is the equally important presence within all these models of flexible wages and "inflexible" technology, which make possible the parameters of a wage level at or tending constantly toward subsistence and an employment level essentially determined by the stock of capital. A third essential premise is the rigid stereotype of class behavior in the political field, to which no modifications of nation or environment are admitted. A fourth is the uncluttered view of "human nature" and of social values in general characteristic of the age.

Alas for the latter day "classicist", none of these assumptions can be accepted today. The driven nature of economic behavior has altered with the shift from atomistic competition to oligopoly and with the appearance of discretionary spending power on the part of the consumer. The convenient relation between wages and population or surplus population no longer operates in the industrialized countries although the classical assumptions still provide important insights in the backward areas. Capital-labor coefficients can no longer be regarded as fixed, so that the employment effects of a changing capital stock cannot be unhesitatingly predicted. And finally, a century of political experience has dealt two severe blows to the political aspects of the holistic model. First, it has uncovered a wide range of variations in class attitudes and behavior among capitalist nations, and has thereby weakened the classical stereotypes of "fixed" economic-political reactions. Second, the experience with socialism has increased uncertainty, not only as to the nature of "human nature", but also as to the relation between economic change and human welfare.

For all these reasons, the goal of a "holistic" analysis is no longer seriously entertained by conventional economists. This carries with it both structural and political consequences for economic thought. On the structural side, the integral connection between economic growth and social change – the very heart of the classical model – has been largely abandoned in favor of models that explore various expansion "paths" for a few variables, with little or no concern for the meaning of whatever changes in the fortunes of the different elements of society are represented by those variables. On the political side, the tacit mutual support of political preferences and economic analysis has now given way to the indeterminate inquiry of "value-free" theory, or to the politically evasive premises of Pareto optima and social welfare functions. Thus, abandonment of the holistic goal has meant the deliberate constriction of economic theory from a discipline that aspired to the towering stature of a truly *social* science to the much more modest status of a science that explicates interactions of the economic elements within the social system, without regard to political or social ramifications.

However reluctantly, we have no choice but to accept much of this deliberate constriction, as more and more elements of the social process have become independent rather than dependent variables. Nonetheless, I am not so quick to acquiesce in the total abandonment of the aims of "holistic" theory, despite this inescapable restriction of its scope. For the loss of its social and political dimensions brings a truly devastating loss to economics as a social science. The difficulty with an "apolitical" economics is that it permits a proliferation of endless models or paths or strategies, all of which are equally plausible, since none have to conform to any requirements of social adaptability or political power, and all equally preferable since social values are rigorously excluded.

Here, I believe, is the crux of the issue of relevance. *It is the recognition, never to be lost to sight, that economic systems cannot be conceived merely as "functional" arrangements for the production and distribution of goods, but must also be seen both as frameworks for the division of social prestige and political power, and as mechanisms for the attainment of some postulated social destination.* In a word, both the "class" and the "welfare" aspects of society can be allowed to disappear from sight only at the cost of expunging the very elements that constitute the vital links between an "economy" and its surrounding social organization. The task for a political economics, then, is to find ways to reintroduce these essential elements into the body of economic analysis.

SHORTCOMINGS OF MARXISM

But are we not merely proposing a return to Marxism? Is not the integration of political and economic attributes the very essence of

Marxian social science? There is no question but that the articulation of a new political economics must use many of the insights of Marxian analysis. The fact remains, however, that a great deal of what passes as Marxian economics today is as irrelevant as neo-classical economics. Despite its political flavor and self-consciously political approach, Marxian economics has so far promised much more than it has delivered. Although it has identified certain problems to which conventional economics has been blind, it has been far from cogent in moving from general forebodings to specific predictions.[18]

In a word, Marxism has the aims but not the accomplishments of a genuine political economics. In particular, it has failed to present an operational model of society because of four major shortcomings:

1. Some of the key formulations of Marxian economics – especially the labor theory of value and its related concepts – have proven awkward or useless as a "kit of tools" for analytical purposes.
2. The ramifications of technology, which Marxian analysis rightly places at the very center of the historic process, have not been adequately dealt with. In particular the physical and social side-effects of technology, from environmental decay to alienation and affluence, have been described in a doctrinaire fashion that fails to illumine the complex role played by science and technology in all industrial societies.
3. The Marxian treatment of social classes and the state has suffered from an excessively rigid aprioristic view. From this inadequate conceptual basis there have followed highly misleading or even outright fallacious conclusions.[19]
4. Ultimately, the Marxian model of society has not found a satisfactory paradigm of its own. Its economic core mechanism depends essentially on the same kinds of "mechanical" relationships as does the neo-classical. And whereas the method of dialectics is an effort to relate social and political events to this core in a "non-mechanical" way, the indeterminacy of these dialectical linkages has not permitted the model to serve as a basis for reliable social prediction or guidance.

To point out these serious deficiencies of Marxism serves two purposes. It makes clear that the traditional Marxian analysis must be vastly improved – even transformed – if Marxism is to have a claim to "relevance" that is demonstrably superior to that of orthodox analysis. But the second purpose served by an analysis of Marxian shortcomings is graver. For the most significant failures of Marxian analysis alert us to a more critical issue. *It is that the remedy for* *some of the faults of Marxian analysis lies beyond our present capabilities as social scientists.* Substitution of some of the more highly refined and flexible tools of conventional economics would add suppleness to Marxian technique. Yet they will not solve the problem of how to treat such semi-independent social variables as ideology, militarism and nationalism. Indeed, to include all these vital elements of the social process within a single model of sufficient particularity to yield reliable foresight seems well beyond our present abilities, at least within a paradigm of a functional model along conventional lines.

TOWARD GREATER RELEVANCE

It follows from my argument that the possibility of increasing the relevance of economics thus hinges on three kinds of changes, each with its own difficulties and likelihood of attainment: (1) the introduction of explicit political considerations into economic research: (2) the widening of the scope of conventional economic theory to include a political dimension; and (3) the supersession of the existing paradigm of "scientific" economics by another, more far-reaching one.

Of the three, the easiest to prescribe is the first. If economics is to become more relevant, economists must direct their energies into areas of the social order that they have heretofore overlooked, particularly areas in which political or sociological elements are intimately intertwined with strictly economic ones. Since I have already suggested some of these areas, I will only add that "institutional" economics would seem preeminently qualified to lead the expedition into this dangerous no-man's land.[20]

The second general remedy is the introduction of a political dimension into economic models to make explicit the tensions in an economic order that is both a functional mechanism and a vehicle for privilege and status. The difficulty is that the simplified class structure by which the classicists combined functional and political analysis seems no longer reliable as a basis for large-scale theorizing.

What can be done in the face of this impasse? First, the construction of models that reveal the political stresses of economic change by linking economic growth with changes in income distribution.[21] These must perforce be much more complicated models than those of the classicists, for the great simplifying triad of workers, capitalists and landlords does not begin to represent the politically active claimants to income under modern capitalism. Moreover the models should not be expected to predict the ultimate outcome of dynamic tendencies, but only to indicate the areas where the tension is likely to be greatest and where, accordingly, we can expect political intervention or collective private action of one kind or another.

An alternative to this "politicizing" of theory lies in the incorporation of *group consciousness* into the constructs whence behavioral functions are derived. An example is a behavioral model of Paolo Leon in which a key determinative factor is the notion of self-conscious class action undertaken by the managers of big corporations. Leon writes:

> Monopolists cannot individually remedy, by altering their investment decisions and wage scales, a disequilibrium in the economy as a whole. In this sense, monopolists and free competition entrepreneurs are not very different. Where they do differ is in the capacity of the former to anticipate events which pertain to the economy as a whole. Therefore if *all* monopolists are aware of a crisis that can damage each of them, it seems reasonable to assume that they will recognize themselves as a class, *or as a group of interests which becomes homogenous at a macroeconomic level.*[22]

It is not my purpose here to defend Leon's concept in particular or to expound the ways in which it affects the development of his model. But his approach – generalized to labor unions and other groups capable of collective action in response to perceived economic stress – opens a second possibility for a reorientation of conventional theory along political lines.

A third avenue of change is more difficult. It is an effort to formulate a theory of the economic behavior of the state. One of the most vitiating assumptions of present-day conventional economics is its tendency to treat government economic activity as either a wholly passive force – for example, the automatic stabilizers – or as a wholly unpredictable independent variable. Yet surely, without descending to the opposite, Marxian view of the state as the creature of a unified capitalist class, it should be possible to indicate the mutual interdependence of the public and private sectors in a more realistic fashion. Such an effort seems within the technical competence of conventional theory and would add immeasureably to the relevance of its models.

TOWARD A NEW PARADIGM

The foregoing suggestions are all intended to enrich the existing paradigm of economic theorizing, and to the extent that they can be implemented, should add a political flavor to the blandness of most present-day economic writing. Yet none of them transcends the paradigm itself. We are left with a representation of social processes that stresses functional relationships and a value-free approach to social problems, even though we know in our bones that society is not, and cannot be, adequately represented by a web of formulae and that value-considerations are clearly at the very heart of the social process itself.

One line of exploration suggests itself at once. It is the search for a new explanatory mode that would arch across the artificial divisions of "economics", "politics" and "sociology" to produce a unified conception of society as a seamless web. It would open up a topography of the social process more ramified than the one to which we are accustomed, thereby enabling us to comprehend the process of social change more thoroughly than is now possible. For example, looking down on society from this new vantage point we should be able to see a cross-linked matrix of activity somewhat like that shown below:

A TOPOGRAPHY OF SOCIAL PROCESSES

	Economics: production and distribution	**Political Science: governance**	**Sociology: social organ-ization**
Role of the individual	*factor of pro-duction*	*citizen*	*role-actor*
	consumer	*voter*	
Role of the state	*regulator of economic processes*	*source of force and authority*	*source of bureaucracy*
Role of the firm	*agency of production*	*lobbying and political influence*	*locus of industrial discipline*
Problems of growth	*intersectoral relations*	*planning*	*changes in motivation due to affluence*
Technological change	*effect on profit rates, structure of demand*	*control over externalities*	*changes in work patterns, life-styles*

Such a topographic or taxonomic approach has value because it forces the specialized observer to recognize the multiplicity of ways in which the simplest variable is embedded in society, and because the observation of these juxtapositions may open up new insights into social causality. Yet I do not believe that such an inquiry can take us beyond the limitations of the existing paradigm. For the topographic approach is limited in two ways. On the one hand, because we do not have the insight we seek from this new map of social activity, there is no systematic, ordered way of juxtaposing activities. Hence the taxonomic model yields no more than scattered, *ad hoc* insights, rather than systematic enlightenment.

On the other hand, to the extent that we *can* find behavioral regularities in and among the noneconomic spheres of life, we have not escaped from, but merely enlarged, the existing paradigm. We have then equated the idea of a unified social science with that of the representation of the social process as a system in *n* variables and *n* equations. That such a Laplacean fantasy is an adequate image of the social universe I find hard to believe. For quite aside from the difficulties presented by the vagaries of so many social processes (including, as we have seen, the best behaved of them, economics), such a "deterministic" model of society fails to come to grips with the aspect of the social process that, more than any other, sets it apart from physical processes – namely, the display of *social volition* as an integral part of the behavioral forces by which the system is set into motion.

ECONOMICS AS A GOAL-ORIENTED SCIENCE

This last conclusion points the way, I believe, for a genuine supersession of the existing paradigm. For what is ultimately constricting about the present conception of social "science" is that it plunges us into the free-will *vs* determinism dilemma from which there is no satisfactory exit so long as we conceive of functional relationships in terms of the unconstrained working-out of immutable behavioral forces. Once we drop this Laplacean conception, however, the dilemma disappears. For we can then retain the functional mode of explanation (which is, after all, the only method of causal analysis we possess) while ridding ourselves of its straitjacket implications *by using this mode as a goal-orienting device.* The new paradigm, in other words, consists in an abandonment of the view of social analysis as that of determining the immanent destination of a universe of goalless particles, and substituting a view of social science as the search for the means by which social goals can be attained.

As we have already seen, this instrumental reformulation, applied to economics, departs from the prevailing conception of the discipline by relinquishing the belief in dependable behavioral functions from which future configurations of the system can be deduced. In its place it elevates a desired terminus of the social process – steady growth, ecological balance and so forth – to the status of the initial premise of economic analysis, while relegating behavior, the premise of conventional theory, to the status of an "instrument" by which the terminus is to be attained. From this point of view, a search for the "laws" of behavior – political and social as well as economic – becomes a matter of secondary concern, and the study of modes of influencing behavior rises accordingly in importance.

To this instrumental reorientation of economics, which has been vigorously proposed by Lowe,[23] one can pose two principal objections. The first is that the intrusion of value-laden goals into the economic reasoning process destroys all hope of establishing a genuine science of economics, much less of political economics. To this objection two rejoinders can be made. The first is that so-called "value-free" economic theory in fact represents an acquiescence in the social termini implicit in a laissez-faire universe, and that even the most innocuous assumptions of "value-free" theory are in fact drenched in unrecognized value judgments as to the legitimacy of the institutional order and the starting position of the economic process.

The second rejoinder is that the scientific character of economic reasoning does not rest in its value-free or value-laden assumptions, but in the methods by which it proceeds from its premises to its conclusions. Whether the mode of scientific analysis be taxonomic or mathematical-functional,[24] essentially the claim to being a scientific procedure rests on nothing more than a subscription to orderly, repeatable methods and to the willing submission of hypotheses to empirical testing. These overriding requirements are in no way invalidated by the use of economic reasoning as a means of gaining a previously stated end, rather than as a means of deducing the trajectory of a system from assumed behavioral functions.

To be sure, in the initial selection of these social ends, the economists has no more claim to priority or expertise than any other educated member of the polity; and without question, the ends that will be selected cannot be invested with any more objective validity than the level of current wisdom affords. But this explicit unmasking of the frailty of the goal-chosing process does not worsen the chances that goals will be well-chosen. It merely brings into the open what was often before a *sub rosa* process. One might say that the ultimate political aim of instrumentalism is thus to elevate the process of goal selection to its proper status as the most important of all social activities.

The second major objection to instrumentalism is that it does not in fact offer us an escape from the reigning paradigm at all. If it throws our dependency on unreliable "laws" of behavior out the front door, it smuggles them in by the back. For it is argued, in selecting the appropriate economic or political or social means of influencing behavior to gain a desired end, must we not lean on behavioral regularities after all? Otherwise, how would we know that measure B would produce desired behavior A?

To this two answers can be given. One is that a main task of instrumental inquiry is not behavioral but structural – that is, inquiry into the allocations or technical sequencing needed to achieve a given economic target. Here, of course, instrumental analysis must deal with the unpredictable elements of the long-run production function, but insofar as its aim is to specify the technical preconditions for a postulated target it can legitimately confine itself to the "given" technology, permitting unpredicted technological change to improve on its bill of particulars.

But a second answer can also be given that directs itself specifically to the behaviorial problem. It is that instrumental analysis must depend on generalizations of differing probabilities with respect to behavior. But unlike conventional economics, the scientific application of instrumentalist theory does not collapse if these expectations of regularity prove unfounded. Instead, provided that the target remains the same, it now becomes the task of theory to discover other behavioral routes to the same goal, or to explore specific means of establishing the behavior that is required. Instrumentalism can thus be pragmatic rather than aprioristic with respect to the relevant "laws" of behavior.

Last, it may be objected that an instrumental orientation, by greatly enlarging the importance of controls over behavior, opens the way to a totalitarian drift for a society that practices such a boldly interventionist social science. To this the answer is easy. If a high ranking goal is freedom of behavior itself – that is, a decision not to permit intervention beyond such mild means as fiscal or monetary policy or the normal spectrum of political exhortation – it may then follow that other social goals become impossible to attain. In that case instrumentalism serves the purpose of making clear what opportunity costs must be borne by opting for a given degree of behavioral freedom.

I do not wish to gloss over the difficulties of instrumental analysis or to magnify unduly the possible gains to be had from its application. Our knowledge of social cause and effect is still very crude, and it is possible that an attempt to guide the social body by the rudder of behavioral control may result in wide tacks and little headway. But the purpose of instrumentalism, at this stage in the development of social science, is not so much to achieve an easy mastery over social processes as to free our minds from ways of thinking that prevent us from making our theories "relevant" to the problem of purposeful social change.

Instrumentalism, by placing the welfare of society as the initial premise of all subsequent analysis, opens a perspective from which not only economics but all social science suddenly takes on a new appearance. From this new perspective all the various disciplines fall into place as different ways of examining the means to given ends; "economics", "politics", "sociology" and so forth, each grappling with particular aspects of the overall problem of bringing about desired social change. In time, the refinements in technique needed to fill out this perspective will doubtless be added. In the meanwhile it is important to understand that the rigor of thought and the empirical basis of the conventional paradigm of scientific procedure are not discarded, but placed in the service of the goal-seeking propensities of the community. Since those propensities seem to be the very quintessence of social behavior, this is tantamount to saying that social science is thereby placed in the service of man.

FOOTNOTES

1. "Putting Marx to Work," *New York Review of Books,* Dec. 5, 1968, p. 10.
2. Servan-Schreiber, *The American Challenge* (New York: 1968) p. 3. (His italics).
3. A poll of members of the American Economic Association undertaken by Elmo Roper in 1959 revealed that only 52 percent of economists supported Galbraith's contention of a "unbalanced" public-private division of national effort. (*Saturday Review* June 6, 1959, p. 39.)
4. I use the expression "paradigm" in the fashion employed by Thomas Kuhn in his well known *The Structure of Scientific Revolutions.*
5. See, for example, the excoriating remarks by Kenneth Boulding, *Proceedings,* American Economic Association, May, 1966, p. 9.
6. See Joan Robinson, *Exercises in Economic Analysis,* p. xv-xvi.
7. *Quarterly Journal of Economics,* Nov. 1959; reprinted in Stigler's *Essays in the History of Economics* (Chicago, 1965) p. 52.
8. Ibid. (*Essays*), p. 60.
9. *Ibid.* p. 59.
10. Income figures for professors from annual surveys conducted by The American Economic Association; income brackets from *Statistics of Income,* Internal Revenue Service.

11. See *Works of David Ricardo,* (ed. Sraffa) Vol. II, p. 223.

12. Thus Robin Marris writes, in "Towards a Reform of the Big Firm," (*New Society,* Sept. 25, 1969), "We hope by the use of 'hard' disciplines, such as economics, to avoid the clumsiness of revolutionary improvisation. We shall certainly remain bourgeois; but, I believe, our methods may offer some possibility of salvation from present errors *if anyone of power and influence will listen to us and act on what they hear.*" (italics added). But the point is, of course, to ask why schemes for the "reform" of the big firm will in all likelihood not be listened to or acted on. Programs of improvement, calculated to appeal to the "public", or the "enlightened self-interest" of companies are as old as those of Robert Owen. The question for social science, including the "hard" discipline of economics, is not alone to criticize the content of these programs, but to understand and explain why the vast majority of them have come to naught.

13. It may be that my formulation is too mild and that at the very least a receptivity to the possibility of far-reaching structural change is a prerequisite for a willingness to undertake political-economic inquiry. I only mean to imply that such an attitude is by no means identical with a dogmatic or implacable rejection of the existing order – somewhere between the mild measures we call "reform" and the extreme ones we call "revolution" lies the little-explored territory of "radical reform" (A. Hirschman). This raises the difficult question as to what factors determine our position along this political spectrum. No doubt sheerly intellectual judgments play their part in this decision, but an unconscious identification with or rejection of the social order seems to exert an even stronger sway. The passion with which the existing order is defended or attacked suggests that "value-free" inquiry into the merits of society may ultimately be inconsistent with the internalization process by which social reality is apprehended. See Peter Berger and Thos. Luckman, *The Social Construction of Reality,* p. 119f.

14. See, *inter alia,* Fritz Machlup "Operational Concepts and Mental Constructs in Model and Theory Formation" *Giornale degli Economisti e Annali di Economia,* Sept-Oct. 1960.

15. *On Economic Knowledge* (New York, 1965) p. 68f.

16. Ibid, p. 48.

17. "On the Limits of Economic Prediction," *Diogenes,* April, 1970.

18. One of the main troubles in Marxist writing has been that the wish has been all too perceptibly father to the thought. The *Monthly Review,* for example, has predicted outright recession no less than six times between 1954 and 1963. (see issues of December 1954, October 1955, September 1956, November 1958, September 1962 and November 1963) and has failed to predict accurately the economic, political or social course of either the Soviet Union, China or Cuba. On a larger scale, a certain milennial strain continues to infuse socialist theorizing with regard to the long run future. (See my essay on "Socialism and the Future", *Commentary,* December 1969.)

19. One of the most important Marxist works of recent years has been *Monopoly Capital* by Baran and Sweezy. Its main purpose is to present a model of capitalism that will enable us to project the social and political as well as economic tendencies of the system. Two points are of interest in this regard. Although the book was published in 1966, there is no anticipation of inflation as a coming central issue within capitalism; rather, stagnation with its deflationary overtones continues to be the central focus of analytical attention. Second, the book contains statements such as the following: "Such planning and such action [mass low-cost housing], however, will never be undertaken by a government by and for the rich, as every capitalist government is and must be." (p. 300). Even granting the premise of the last clause, does it follow that a government of the rich might not find it politically useful to rid a nation of its slums? The examples of capitalist Switzerland, Netherlands and Scandanavia, are enough to prove that it may indeed. In other words, this

formulation of class interest and its consequences – both empirically and logically – is simply wrong. I should add that not all Marxist analysis is so simplistic, and that many insights of the Baran-Sweezy book are penetrating and powerful. Nevertheless, this kind of mechanical analysis is clearly "irrelevant" – not because it is apolitical, but because it is unpolitical.

20. I cannot refrain from mentioning once again the problem of "imperialism". The multi-national corporation is fast emerging as a major form of enterprise within all industrial capitalisms. Yet we still possess no full-scale study of the transition from national to international enterprise, and of the relationship of such enterprises with their "home" or their "host" governments. Important beginnings, however, may lie in the work of Stephen Hymer and others.

21. A beginning along these lines is to be found in the work of Joan Robinson, Kaldor, and Sraffa.

22. *Structural Change and Growth in Capitalism (1967)* p. 31. Author's italics.

23. Lowe, op cit. See also his essays in *Economic Means and Social Ends,* ed. R. Heilbroner, Prentice Hall, 1970.

24. "There do exist respectable sciences that have essentially no theory at all in the physicists' sense. Mineralogy, and to an even greater extent, taxonomy are primarily concerned with framing assumptions – for in essence a definition is an assumption and the naming of a species is a definition. . . . To say that all of biology [read *economics,*] should have an elegant mathematical framework is as much of an imposition of metaphysics on observation as it was to say that the only suitable astronomic observations must involve cycles and epicycles. . . ." L. S. Slobodkin, "on the Present Incompleteness of Mathematical Ecology," *American Scientist,* Sept. 1965. p. 351. 354.