INFORMATION, INCENTIVES, AND PROPERTY RIGHTS: THE EMERGENCE OF AN ALTERNATIVE PARADIGM*

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Introduction

My task in this paper is to elaborate and partially evaluate the tenets of what Randall (1985) calls the PC/I "school" in his most useful paper. I see much merit in the PC/I paradigm, but in my opinion it is not free from problems. My approach will be to set forth the principal arguments for the paradigm, relying primarily on the work of practicing members of the school, and in the conclusion raise a doubt or two that continue to bother me.

In his Nobel lecture, George Stigler (1983) discusses why economists seem unable to agree on which theories are most valid. We do not choose directly between rival theories on the evidence of empirical tests. Even if we agreed that empirical testing of theories is the foundation of good science, it is seldom that a theory in economics has a well-defined domain of applicability. Thus, no opportunity exists to construct a definitive test of the alternative paradigms. The reasons are the a priori deductive character of our theory and the nature of our data, which for the most part result from human decisions and thus cannot be "controlled" so that postulated causal relationships can be tested adequately. Both points have been centerpieces of "Austrian" economics, the chief cornerstone of the PC/I paradigm.

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The Austrians fault the mainstream neoclassical paradigm on two counts: 1) its science is flawed, and 2) insufficient attention is given to incentives and the institutional milieu in which decisions are made.

Operationalizing an Objective Science with Subjective Data

Economic theory for the Austrians, such as Mises and Hayek, is entirely a priori, and the relevant data are subjective. This means that an observer can never know what another is thinking. Hence, there is no way, even conceptually, to predict what action will be taken in any given circumstance. For the Austrians, the essence of economic decisions is that man chooses.

Buchanan (1982) has argued that the criterion of a predictive scientific theory is a set of conceptually refutable hypotheses. If there are sufficient data on the environment of a past choice and if the chooser's behavior is predictable on the basis of observed uniformities, then choice may be judged ex post. Thus, Buchanan argues that the Austrians claimed too much. There are patterns of human behavior in economic interaction that are subject to conceptual prediction about which empirically testable hypotheses may be derived. In some cases, men are essentially passive responders to economic stimuli; they react, they do not choose. The scope for this predictive theory of economic behavior is for some average or representative member of a group, not the particularized behavior of any individual. By this line of argument, Buchanan establishes the validity in principle for the objective predictive theory that is one of the hallmarks of the neoclassical mainstream.

But Buchanan admits that there are aspects of human action that cannot be subjected to explanation in an operationally meaningful theory of economics. Just as the Austrians say, the objects for analysis are often the choices of persons, which cannot be genuine choices and at the same time be subject to prediction (Buchanan, 1982).

Thus, for Buchanan, the purpose of the explanatory exercise determines the appropriate domain of the economic theory to be employed. Clearly, however, the failures of the predictive science of economics suggest the necessity of allowing for the existence of the domain of human action not amenable to scientistic explanation (Buchanan, 1982), a point made most emphatically over the years by Hayek (1974).

But beyond the question of the purpose of inquiry, what is the basic character of the most primitive elements of microeconomics? How objectively measurable are they?

Few would dispute the notion that demand-side utility is subjective. The New Welfare Economics, that came into being in the 1930's and 1940's, argued that since utility was subjective, interpersonal comparisons were logically inadmissible. Thus, much of the Pigovian structure of remedial governmental measures, such as taxes and subsidies, was open to criticism.

The vital element on the supply side, opportunity cost, is no less subjective than is utility. This is the message of Buchanan's influential book Cost and Choice (Buchanan, 1969). Buchanan states that as early as 1928, Frank Knight, one of the standard bearers of neoclassical theory at Chicago, acknowledged

the correctness of the Austrian conception of cost. The cost of producing a unit of a commodity is measured by the alternative real product that might have been produced had the resource inputs been rationally reallocated to other uses. Knight went on to argue, however, that the market value of these alternate products provides a common denominator for the estimation of cost, a value that is determined in the exchange process. Buchanan points out, however, that in later papers Knight sensed that something was wrong. The introduction of nonpecuniary factors in various resource uses severs the critically important link between the objectively-measured market value of alternative product and the cost that enters into the subjective calculus of the decision-makers. This linkage is essential if the theory of value is to retain scientific content in any predictive sense. Buchanan believes that without fully realizing it, Knight had shifted from a positive model of behavior in which costs are objectively measurable into one of choice in which costs are purely subjective (Buchanan, 1969, p. 13).

The upshot is that if the economy is not in equilibrium, if the individual incorporates nonpecuniary considerations in his decisions, if there are Knightian profits to be secured elsewhere than in the activity in question, if discrete rather than marginal adjustments are possible, then objectively-measured marginal outlay is not a true expression of genuine opportunity cost (Buchanan, 1969).

It was Mises, in the debate on "economic calculation," that showed that cost could not be objectively determined and therefore the socialists could not hope to equate cost with price

in planning production. Neither could planners simulate competition. Competitive prices can only be determined by actually having competition (Pasour).

Buchanan cogently summarizes: "The implications of all this for modern welfare economics could scarcely be underestimated. My argument suggests that almost all of this subdiscipline has been based on simple methodological confusion. It has converted predictive propositions into allocative norms which have then been used to make policy proposals. In one sense, it might be said that the neoclassical economist has succumbed to the temptation to make his whole theory more general than its methodology warrants" (Buchanan, 1969, p.41).

Economic Agents: Consumers and Entrepreneurs

As Randall demonstrates, the Austrian school is characterized by extreme individualism in its methodology. Rational profit maximizing firms and utility maximizing agents are assumed as in the neoclassical mainstream. But what is missed in that tradition is the processing of information and the structure of incentives needed to give validity to each individual quest. The individual is not assumed to be a mere automaton that reacts in programmed, maximizing fashion to the environment that confronts him. Human decision is spontaneous, creative and dynamically subjective (Kirzner). More about this later.

Langlois (1982) has considered how the Austrian view differs from the neoclassical in the matter of the decision environment. Austrians do not wish to presuppose that the framework for

decision is automatically known by or is a given to the agent. Economic agents perceive a decision-making situation. They prefer a best alternative given their knowledge and means to achieve it. Since agents operate in a world of complexity and uncertainty, their decisions are optimal in a subjective ex ante sense, but not necessarily in some objective ex post sense. The method uses the basic concepts of the classical-neoclassical tradition--value, wealth, exchange, price, and cost. But the situational logic of the decision-maker is aggressively subjectivist and enriches those aspects of the process that involve discovery and the growth and transmission of knowledge.

Since the focus is on process, employing a priori theory and using nonmeasurable subjective data, the Austrians find little value in the mathematical observational approaches to economics, such as are used in most econometric studies.

Institutions: Markets, Property Rights, and Information

Social scientists often start the process of studying social phenomena from the assumption that human beings have choices, and that theories are attempts to explain those choices (Vaughn). Positive economics, however, is only likely to be possible where institutional parameters are somewhat set, because it is only in that situation that scientists have a stable environment about which to theorize. Thus, there appear to be good reasons why the neoclassical mainstream generally assumed the institutional framework as given.

Because of their concern with the process of choice, however, the Austrians were not so inclined to consider

institutional forces as exogenous. Two classes of "endogenous" institutions of paramount interest are the market and the system of property rights.

The Market. The market is seen as a process in which individuals voluntarily interact with one another in pursuit of their own interests. With appropriately designed institutions--such as well-defined, and respected property rights and freedom of contract, freedom of exchange, and the enforcement of contracts--self-interested behavior generates a spontaneous order (Hayek, 1973 p.41). This order is chosen or ordered by no one, yet it tends to maximize the subjective values of all market participants (DiLorenzo). All traders gain ex ante, and thus the market game is always positive sum (Anderson).

The main purpose of Austrian theory is to explain the vast, complex, and changing patterns of human interaction that we call the market economy (High). Unfettered market exchange maximizes freedom of choice and is fully compatible with the tradition of natural rights that has undergirded Western Civilization for over 300 years.

In mainstream neoclassical economics, in contrast, simplifying assumptions are generally made that prevent unforeseeable factors from affecting the models, the exact nature of the knowledge of the agents in the models is specified, the welfare effects of all activity are assumed to be perfectly understood, and tastes and technology are held constant. The result is mindless agents carrying out their fate in a closed world. In the Austrian world, each human actor is an

entrepreneur, and an entrepreneur is always a speculator, always an acting man in regard to the changes occurring in the data of the market (Kirzner). Uncertainty of the future is implied in the very notion of action. In equilibrium, all market decisions have somehow come into complete mutual coordination. Entrepreneurial activity drives this market process of mutual discovery by a continually displayed alertness to profit opportunities. For the Austrians, the imaginary constructions such as equilibrium are only tools of reasoning (Littlechild).

The process of acquiring and utilizing useful knowledge is of central concern to PC/I proponents. The standard neoclassical theory, by contrast, usually assumes that knowledge is perfect. But the determination of the optimal allocation of resources given perfect information is decidedly not the economic problem which society faces (Garrison). Any explanation of the operation of an actual economy will be incomplete unless it is capable of handling the evolution of knowledge as part of the economic process itself. The problem of the optimal search for information, and its uses in consumption, production and pricing decisions, has been standard fare since Stigler's seminal paper (Stigler, 1961). But it is the Austrians who most appreciate and understand the significance of Stigler's contribution.

Another theme of Austrian analysis is the pivotal role of prices in permitting the effective mobilization and utilization of local knowledge. Whereas a centrally planned economy needs to concentrate knowledge of available resources, production techniques, and consumer preferences within the planning organization, a decentralized market economy needs only a set of

prices. Each economic agent can then apply his own particular pattern of preferences to those prices (Loasby).

But some theory of price-setting is needed. This is accomplished in the Austrian system by entrepreneurs (Kirzner). Competition among entrepreneurs can exist only in disequilibrium. They do not respond to prices; they actively determine them. Endowments, preferences, and technology are not assumed to be generally known. Instead, each individual has his own particular subset of knowledge. This produces a local-knowledge monopoly, but the very act of using that knowledge tends to break down the monopoly by diffusing the knowledge on which is it is based. Differences in price for an apparently homogeneous product and supernormal profit, for example, are necessary features of that process.

Property Rights. Perhaps the most famous Austrian of them all was Schumpeter whose theory of the innovator is well-known. Innovation depends on man's ingenuity, his guesses about people's preferences, and incentives to accept the risk of failure. Innovation is thus also individualistic in its origins even if social in its consequences (Pejovich).

The property rights system will largely determine incentives for innovation and entrepreneurial activity (Demsetz), the ability to internalize externalities (Coase), the location of knowledge most likely to yield productive innovations (Pejovich), the appropriability of the returns to an innovation (Pejovich), the impact of monitoring labor and managerial performance on technological choice and productivity (Alchian and Demsetz), and

the distribution of shared costs and shared benefits (Milenkovitch). Can it be any wonder that property rights and incentives are endogenous to the Austrian analytical system?

Conclusions

I believe that the PC/I paradigm offers an extremely rich source of understanding the economic world in terms of the decisions of purposeful human beings. Its policy implications are powerful in terms of the types of institutional structures that will conduce most to economic progress and human freedom.

There are some serious omissions in this paper. I have not discussed the immensely fruitful notions of "government failure" and "rent-seeking" that characterize the public sector of our economy, and which have been emphasized most by the PC/I school. After all, it is the failure of the neoclassical mainstream to explain the disenchantment with political allocations of resources that has provided much of the impetus for the development and utilization of the PC/I model in recent years (Gardner).

Still, I am far from sanguine about a couple of positions taken by the Austrians. I regard their antipathy to quantitative empirical testing of theory as dangerously nihilistic. Inferential statistics and econometrics have developed robust techniques for making inferences about broader aggregates from observations of limited samples and the use of proxies to represent unobservable variables. I fail to see why the admitted subjectivity of cost and utility necessarily means that behavioral activity cannot be observed, regularities established,

and thus empirical testing of theoretical hypotheses accomplished.

There is a further issue, discussed at length by Yeager (1982) that is potentially a problem when analytical focus is given primarily to the choice decisions of individual consumers and firms in society. This is the well-know "fallacy of composition" and its flip side. Is it legitimate in an individual experiment to postulate alternative values of some variable that cannot be a datum but rather is an endogenous variable from the standpoint of the economy as a whole? For example, prices can fruitfully be assumed to be a datum to a competitive firm, but is endogenously determined in market or industry studies. Individual savers can consider interest rates and the money supply as givens in their saving-consumption decisions, but for consumers as a whole, such an assumption would be highly unrewarding.

The flip side is the invalid supposition that what is true from an overall viewpoint must be true from an individual viewpoint as well. What this suggests to me is that objective economy-wide and industry market studies as well as subjective individual-decision studies are required for a complete understanding of the economy. This implies that for many purposes the N/RP, the PC/U and the PC/I paradigms can be viewed as complements as well as substitutes. It is not a curse that we have all three; it is a blessing.

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